

PUBLISHED EVERY WEEK. \$1.50 PER YEAR.

# THE FARMER'S ADVOCATE

AND HOME MAGAZINE

PERSEVERE  
SUCCEED  
FOUNDED 1875

Dairy and Cold Storage  
Commissioners Dept. of Agriculture

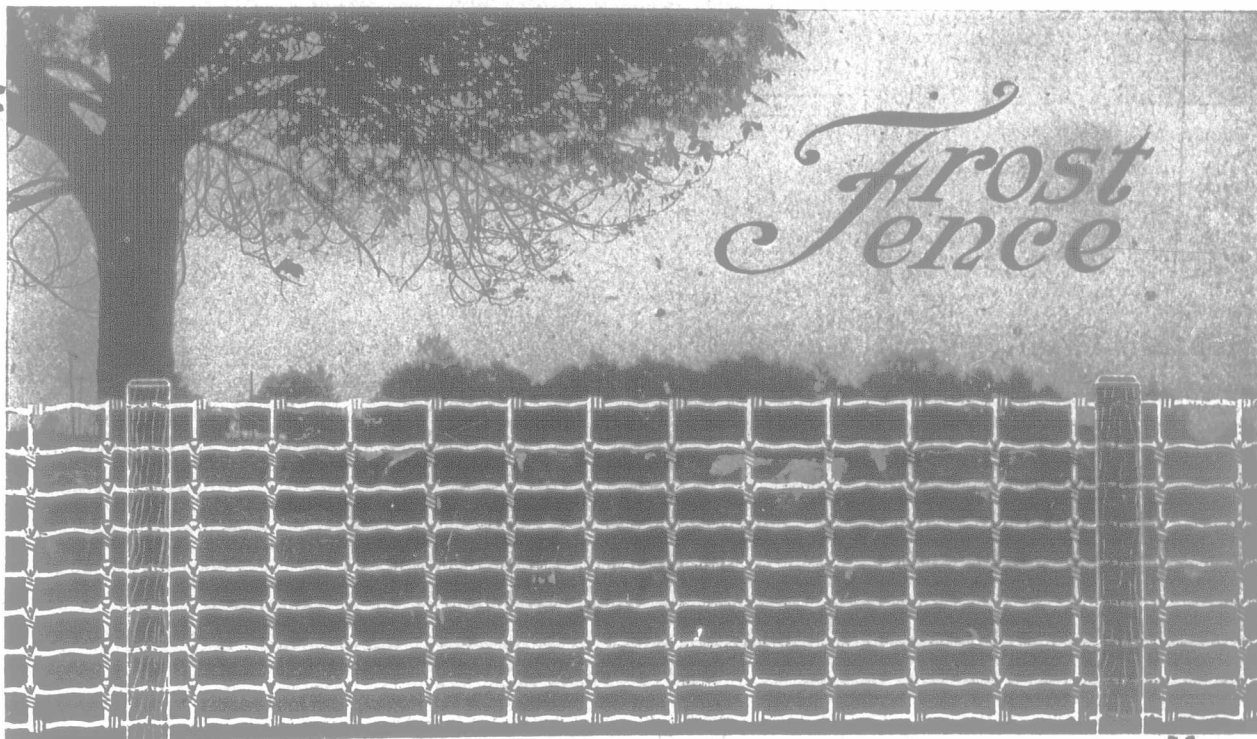
\*AGRICULTURE, STOCK, DAIRY, POULTRY, HORTICULTURE, VETERINARY, HOME CIRCLE.\*

VOL. XLIX.

LONDON, ONTARIO, DECEMBER 17, 1914.

No. 1160

The  
True  
Measure  
of  
Value—  
"SERVICE"



FROST FENCE gives the service you have a right to expect, the service you pay for. So do Frost agents, the majority of whom have handled FROST FENCE for years, because it has always been dependable. They consider it the best fence for increasing their sales each year and securing for them a permanent fence trade. You'll find satisfied customers wherever FROST FENCE is used. They always get what we now offer you! VALUE AND SERVICE FOR EVERY DOLLAR INVESTED.

## Frost Fence First

The large stocks of FROST FENCE that are carried in almost every community make it possible for you to purchase at the lowest prices, when taking into consideration the quality of the goods. Our dealers have FROST FENCE shipped to them in carload lots, and you get the saving thus made in freight. When you buy direct or from small dealers you pay this extra freight.

FROST FENCE purchasers get that satisfaction which good service gives, because our up-to-date wire mills produce wire specially for FROST FENCE manufacture. We've got to make our goods right, if for no other reason than to uphold our past reputation.

The machines which weave FROST FENCE are more practical, and thus turn out better product. No kinked lateral wires—no loose locks—no uneven spaces between stays. Don't these outweigh the few cents per rod difference between FROST FENCE and cheap fence?

See the dealer right in your own township, or write us direct.

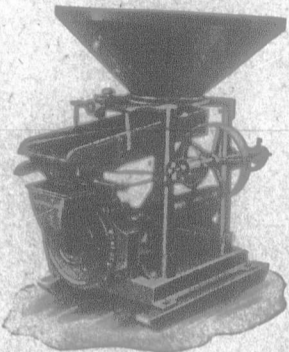
FROST WIRE FENCE CO., Limited, Hamilton, Canada

**The Champion Feed Grinder**

THE BEST IN THE WORLD

A MONEY SAVER

Highest awards wherever exhibited



Feed Grinder

Our feed grinder enables the practical farmer to do his grinding easily right in his own barn. Built in different sizes, suitable for farmers and millers.

We also manufacture an Oat Crusher. Write for catalogues. You will be interested.

**S. VESSOT & CO., Joliette, Que.**  
Sole Manufacturers

Sold by International Harvester Co. of Canada, Limited

London, Ont.; Hamilton, Ont.; Ottawa, Ont.; Montreal, Que.; St. John, N. B.; Brandon, Man.; Winnipeg, Man.; Calgary, Alta.; Edmonton, Alta.; Regina, Sask.; Saskatoon, Sask.



Do you want to **BUY A FARM?**  
Send For our list

Have you a **FARM FOR SALE?**  
List it with us

ONTARIO FARM AND FRUIT LANDS DEPARTMENT  
**DOVERCOURT LAND BUILDING & SAVINGS COMPANY LIMITED**  
W.S. DINWICK, PRESIDENT 82-88 KING ST. E. TORONTO.  
LARGEST OWNERS & DEVELOPERS OF REAL ESTATE IN CANADA

**LEARN TO BE A CHAUFFEUR**

The British Government want 1,000 chauffeurs. Let us qualify you either to go to the front or to take the place here of others who have gone—good chauffeurs are scarce. All makes of gasoline motor engines, repairing, etc., thoroughly studied. Our diploma qualifies you for Government chauffeurs' license examination. Write to-day for particulars and free booklet. Classes now starting.  
Ed. W. Cameron, Principal  
**TORONTO AUTOMOBILE SCHOOL**  
86 Wellington Street West, Toronto, Ont.

**CODE WILL FORM**  
MAKE a perfectly legal and unbreakable will in your own home. A Code Will Form protects your family, prevents disputes. All for 25c. (full instructions with each form). At your book-seller or stationer or from  
**25c**  
**The Copp Clark Co., Ltd.**  
509 Wellington St. West, Toronto

**Johnny-on-the-Spot**

"Johnny-on-the-Spot," on skids or on truck, will take care of all your chores—pumping, separating cream, pulping, churning, washing, etc.

Stop wasting your time and energy in useless drudgery. Let "Johnny-on-the-Spot" do it—one of the famous Gilson "Goes Like Sixty" Lane—a high quality engine at a low price. WRITE FOR CATALOGUE AND FULL PARTICULARS. ALL SIZES.

**Gilson Manufacturing Co. Limited**  
2509 York St., Guelph, Ontario

**\$47.50**

**Dominion Portable Truck Scale**

Made in Canada

The handiest all-round Scale for farm use. Built for accuracy, convenience and durability. Swivel handle and swivel ball-bearing casters. Low, bevelled beam. Steel bag rack. Specially tempered bearing points. Capacity, 2,000 lbs. by 1/2 lbs. Guaranteed. Fully described in "Profits and Pounds," an interesting booklet on weights. Sent free.

- Farm Engines
- Pumps
- Tractors
- Windmills
- Lighting Outfits
- Water Systems etc., etc.

**The Canadian Fairbanks - Morse Co., Limited**

Montreal Quebec St. John  
Toronto Ottawa Hamilton Ft. William  
Winnipeg Regina Saskatoon  
Calgary Edmonton Vancouver Victoria

Canada's Departmental House for Mechanical Goods

**London Automatic Concrete Mixer**

does any kind of mixing automatically measures a 2 1/2 mixes. If you use concrete you better write us for price of this machine. We have the largest line of concrete machinery of any firm in the world. Tell us your requirements. **London Concrete Machinery Co., Dept. B, London, Ont.**

**FREE LAND**

For the Settler in **NEW ONTARIO**

Millions of acres of virgin soil obtainable free, at a nominal cost, are calling for cultivation. Thousands of farmers have responded to the call of this fertile country, and are being made comfortable and rich. Here, right at the door of Old Ontario, a home awaits you.

For full information as to terms, regulations and settlers' rates, write to

**H. A. MACDONELL**  
Director of Colonization  
Parliament Buildings, TORONTO, ONT.

**HON. JAS. S. DUFF**  
Minister of Agriculture  
Parliament Buildings, TORONTO, ONT.

**SEEDS**

Ask for our 1915 Catalogue.

**GEORGE KEITH & SONS**  
124 King St., E., Toronto  
Seed Merchants since 1866.

**EUREKA FEED**

With Molasses

A low priced feed of good value for young growing cattle.

Write for full particulars and prices.  
**THE CHISHOLM MILLING CO., LIMITED**  
TORONTO

Investigate the spraying question from a coldly business standpoint and you'll buy a

**SPRAMOTOR**

We'll forward you the proofs of its superiority, in any style or class, to any other spraying outfit on the market. Write to-day.

**B. H. HEARD SPRAMOTOR,**  
103 King Street :: London, Canada

**Profits Exceed Estimates**

ONLY IN THE

**LONDON LIFE**  
INSURANCE COMPANY  
London, Canada  
Policies "Good as Gold"

BOOK ON

**DOG DISEASES**  
And How to Feed

Mailed free to any address by the author.

**H. CLAY GLOVER, V. S.**  
118 West 31st Street  
New York

**Best Harrows Harrow Best**  
Get a

**Bissell Disc Harrow**  
(In-Throw, Out-Throw or Double Action)

**T. E. BISSELL CO., Limited, ELORA, ONT.**

For Your WINTER DRIVING  
Get a

**Clark Heater**

Use it in auto, sleigh or wagon. In coldest weather it will keep you warm and cozy. No flame, smoke or smell. Twenty styles of these heaters, from \$1.25 up. Most of them have attractive carpet covers with asbestos lining. They fit in at the feet in any vehicle, occupy little space and are just the thing for real comfort. They are attractive and last forever. We guarantee you will be satisfied and pleased or money refunded. Ask your dealer for a CLARK HEATER—they always satisfy.

Write for complete free catalogue—a postal will bring it. Write now, please.  
**Chicago Flexible Shaft Company**  
110 N. LaSalle St. Chicago, Illinois

**TRUE ECONOMY**

Our New 1915 Model with its absolutely new ideas.

is the first stepping stone to independency. Don't take a step backwards by buying without seeing our new 1915 Superior Cream Separator demonstrated.

It's a wonder—at saving money and labor—several exclusive features—tested.

Write for agent's name or full particulars to-day.

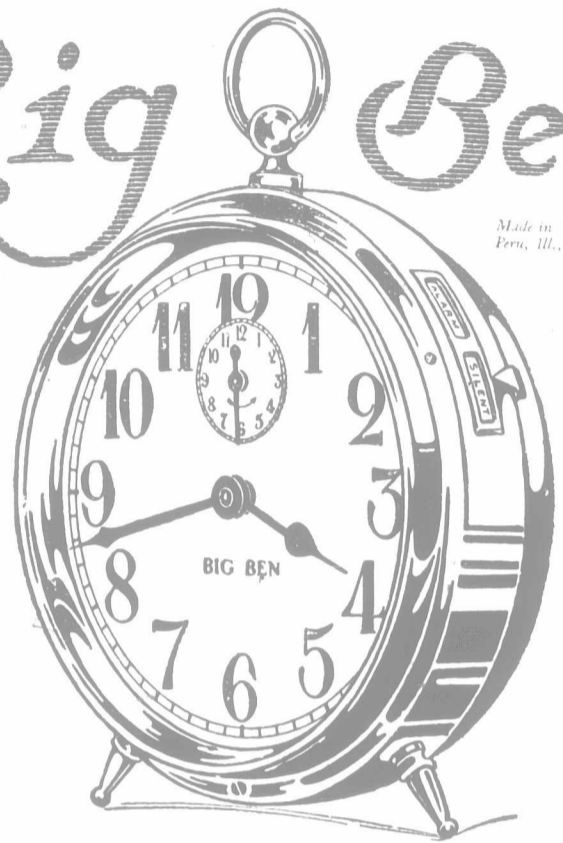
**Raymond Manufacturing Co. Limited**  
GUELPH, ONTARIO

Write for agent's name or full particulars to-day.

**MADE IN CANADA**

Please mention "The Farmer's Advocate."

# Big Ben



Made in La Salle and Peru, Ill., by Wehrhox

## A crackerjack of a Xmas present

Remember when you were a kid? The presents that were all shiny and bright, and that "worked!" Weren't they the ones that you were proudest of?

Something for your room—something you could use all year—something like big people had in their rooms. The sensible presents appealed to you best when you were a kid. Think back a bit and see. Then think of Big Ben for those boys and girls.

Toys, of course, should never be displaced. It wouldn't be Christmas without them. But mix in useful things—things that develop pride and that make little people feel responsible. Give them presents to live up to and to live up with. Don't make the mistake

of thinking they don't feel the compliment.

Let one thing that meets the eye of your little boy and girl on Christmas Morning be that triple nickel-plated, jolly, handsome, pleasant looking, serviceable, and inspiring clock—BIG BEN. See if you don't hear them say: "Why! Isn't that a crackerjack? Is that for me to use myself?"

Big Ben is a crackerjack of a Christmas-present to give to any friend. He's two presents in one, a dandy alarm to wake up with, a dandy clock to tell time all day by. He stands seven inches tall. He's got an inner vest of steel that insures him for life,—big, bold, black hands you can see at a glance in the dim morning light without ever having to get out of bed—large, comfy keys that almost wind themselves and a deep, jolly ring that calls just when you want, and either way you want, five straight minutes; or every other half minute for ten minutes unless you flag him off.

Big Ben is sold by 23,000 watchmakers. His price is \$2.50 anywhere in the States, \$3.00 anywhere in Canada. If you can't find him at your dealer's, a money order mailed to Westclox, La Salle, Illinois, will send him anywhere you say, attractively boxed and express charges paid.

### Why Not Enjoy City Comforts?

The one thing sadly lacking on the average farm is running water in house and barn.

For a moderate outlay you can enjoy full water facilities, with all the comfort and safety that adequate water pressure affords.

We make the EMPIRE Water Supply System in many styles and sizes to cover every need—hand-operated, or to run by windmill, gasoline or electric power. Outfit shown below is our powerful Style A.

### EMPIRE Water Supply System

It is operated by hand, requires little attention, is simple, durable, and does not get out of order. This apparatus is low in price, but very efficient. It gives ample pressure to all parts of the house. By making a simple connection to kitchen range you secure abundant running hot water on every floor.

Our pumps will furnish water and air at the same time, water alone or air alone. Let us help you to greater home comfort and better security.

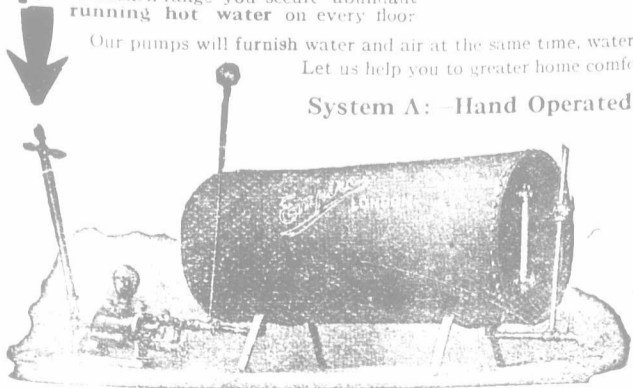
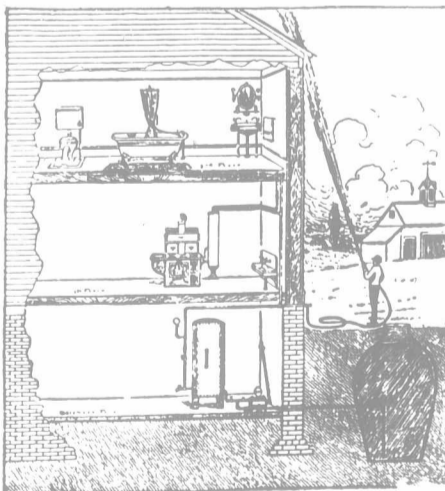
#### System A:—Hand Operated

Profit by all the labor-saving that good water pressure makes possible.

Write to-day for free illustrated literature.

Empire Mfg. Company Limited

E. London, Ont.



## "Metallic" Ceilings

and wall plates make very hand-some, easily cleaned, fire-retarding interiors. Splendid for home, church, school, etc. Fix up one room and see how you like it. Get illustrated literature.

Metallic Roofing Co., Limited, Manufacturers, Toronto

## Who'd be a Scrooge?

You wouldn't intentionally. But you might be one and not even know it.

Supposing that you were to die before another Christmas came around, would your kiddies' stockings be as well filled next year? Or might they not lack even some of the necessities of life?

Among other gifts this Christmas why not present your wife with an Imperial Home Protection policy.

That would be a most practical gift; based on generosity and kindness; banishing worry, anxiety and care; making Christmas all the happier and the New Year all the more hopeful for yourself and loved ones, in the knowledge that, come what may, the future is provided for.

## THE IMPERIAL LIFE Assurance Company of Canada

HEAD OFFICE - TORONTO

Branches and Agents in all important centres

## Sydney Basic Slag

The Ideal Fertilizer for Stiff, Clay Soils

If we could call on you, Mr. Farmer, who are reading this and tell you all about our goods, we would not advertise, but as we cannot make your acquaintance personally we are spending quite a lot of money just to get YOU interested. We have goods to sell which, if you will use, will recoup your outlay with good interest.

### WE MAKE MONEY BY HELPING YOU TO MAKE MONEY

The proprietors of this journal know that we are a reputable firm, and that our goods are all we represent them to be, otherwise this advertisement would not appear here. If you have used fertilizers in the past you know their value, but you will get equally good results from Sydney Basic Slag at a saving in price of \$10 to \$15 per ton. If you have never used fertilizers, then make a beginning this season with Sydney Basic Slag. It is your duty to the Empire to increase your production of foodstuffs, and this can be accomplished with the aid of fertilizer.

For descriptive literature telling all about SYDNEY BASIC SLAG, write to:

The Cross Fertilizer Company, Limited  
SYDNEY, NOVA SCOTIA

**R.M.S.P.**  
**WEST INDIES**  
 FORTNIGHTLY SAILINGS  
 BY  
 TWIN-SCREW MAIL STEAMERS  
 FROM  
 St. John (N.B.)  
 AND  
 Halifax (N.S.)  
 SPECIAL FACILITIES FOR TOURISTS  
 For Illustrated Folders, Rates, etc., apply to the Agents of The Royal Mail Steam Packet Company; or in HALIFAX (N.S.) to PICKFORD & BLACK, Ltd.

**'Camp'—the goes-furthest-costs-least Coffee**

One spoonful of 'Camp' to one cupful of boiling water. No dregs, grounds, or waste. And you couldn't have a better cup of coffee if it cost twice as much.

**Don't the Children look forward to their 'CAMP'!**

Always have 'Camp' in the house. It's so easy to make—and so good!

Put 'Camp' on your grocery order to-day

**R. PATERSON & SONS, LTD.**  
 COFFEE SPECIALISTS,  
 GLASGOW.

**This Christmas**

The useful gift will be  
 The appreciated gift.

**PRESIDENT SUSPENDERS**

(Sold in appropriate Xmas box)

**Will please him**  
 MADE IN CANADA

**Warm Water for Your Stock In Cold Weather!** ONCE USED ALWAYS USED

The Celebrated Heller-Aller Down-Draft Tank Heater

The only thing on earth to supply warm water for your stock in cold weather. Every farmer should have one—and now is the time to buy, before cold weather comes. They will consume anything in the shape of fuel, and will never wear out; 24 inches in height, 155 pounds in weight, for any height tank, and will remain upon bottom without anchoring.

We also manufacture these in the galvanized—designed similar, with rods to hold same on bottom of tank. Galvanized and cast feed cookers and water heaters, too. Write to-day to

**THE HELLER-ALLER COMPANY, WINDSOR, ONTARIO**

ASK FOR  
**Rices's Salt**

The purest and best for table and dairy use.

North American Chemical Company, Limited  
 Clinton Ontario.

**CANADA'S ONLY MUTUAL**  
 FOUNDED IN 1869  
 AND  
 CONDUCTED ON THE IDEAL SYSTEM OF MUTUALITY

A COMPANY OF POLICYHOLDERS BY POLICYHOLDERS FOR POLICYHOLDERS

**THE MUTUAL LIFE ASSURANCE CO. OF CANADA**  
 WATERLOO ONTARIO

**PATENTS TRADE MARKS and DESIGNS**  
 PROCURED IN ALL COUNTRIES  
 Special attention given to Patent Litigation.  
 Pamphlet sent free on application.

**Ridout & Maybee**  
 CROWN LIFE BUILDING, TORONTO, ONT.

**LOUDEN**  
 Barn Equipments  
 SAVE TIME — SAVE LABOR — SAVE EXPENSE.  
 Our new catalogue describes every kind of device for money-making and labor-saving on farms. Write to:

**LOUDEN MACHINERY CO.,**  
 Dept. 1, Guelph, Ont.

"NINE LIVES"  
 Be sure that you buy your batteries with this trade mark

**XCELL DRY BATTERIES**  
 are guaranteed to outlive and outlast all other makes. Extra lives have been given to the Black Cat.  
 Write for Catalogue.  
 CANADIAN CARBON CO., 96 KING ST. W., TORONTO 8

Ship your **FREE** FURS  
 Our Trappers Guide Supply Catalog and Price List.  
 Write today, address  
**TO JOHN HALLAM LIMITED**  
 Desk E 83 TORONTO

Please mention "The Farmer's Advocate."

**Run on Coal Oil—6c for 10 Hours**

Ellis Engines develop more power on cheap lamp oil than other engines do on high-priced gasoline. Will also operate successfully on distillate, petrol, alcohol or gasoline. Strongest, simplest, most powerful engines made; only three working parts. No cranking, no excessive weight, no carbonizing, less vibration, easy to operate.

**ELLIS ENGINE**

Horizontal Engine Vertical Engine

Have patent throttle, giving three engines in one; force feed oiler; automobile type muffler; ball-bearing governor adjustable while running and other exclusive features. Every engine sent on 30 days' approval with freight and duty paid. 10-year guarantee. Write for 1915 catalog, "Engine Facts," showing New Models with special prices. Shipments made from Windsor, Ont. **ELLIS ENGINE CO., 2855 E. GRAND BLVD., DETROIT, MICH.**

The good old way improved.

**MONEY IN YOUR SUGAR BUSH**  
 Preserve the real maple taste in your maple syrup by boiling it down in the PERFECT  
**MAPLE EVAPORATOR**

Simple to operate, price so moderate that anyone can buy. Made of first quality material. Sold you direct. Makes the small bush profitable.

Every one guaranteed. Order now and be ready to take care of your early runs of sap, the best and most profitable you get. Write for pamphlets to-day.

**The Steel Trough & Machine Co., Limited, 145 James St., Tweed, Ont.**

**Stop that cream leak NOW**  
 with a  
**DE LAVAL Cream Separator**

**WHY** continue to separate cream by either "gravity skimming" or an inferior or worn out cream separator that loses cream for you every day just as surely as a leaky cream can?

You may have less milk just now, but with "old" milkers and cold weather your cream loss is greater than in spring or summer. Cream is worth more now, too.

If you will test your skim-milk you will see for yourself that you can't afford to wait until next spring. Let the De Laval start saving cream for you right now and it will earn a large part of its cost by spring.

See the nearest De Laval agent at once, or if you do not know him, write us direct for any desired information.

**De Laval Dairy Supply Co., Limited**  
 MONTREAL WINNIPEG FETERBORO VANCOUVER

**New Edition of Modern Silage Methods**

ENTIRELY a new book—new chapters—tells facts about every type of silo—home made, stave, brick, cement, tile, metal, pit, etc. Tells best for your needs—impartial suggestions for making most profits. 284 pages—10 page index—Copyrighted Nov. 1914, covers 41 silage crops. Send for new book; it beats all previous editions. Write today. Mailed for 10c. Mention this paper. **Silver Mfg. Co., Salem, O.**

**Winter Term Opens Jan. 4th**  
 Become Independent! Our Graduates get and hold good positions owing to their superior training. The

**ELLIOTT Business College**

Yonge and Charles St., Toronto.  
 is doing the highest grade of work in Business and Shorthand Education. This Institution differs in many respects from the ordinary business colleges. Write for large catalogue No. 20.

**W. J. Elliott, Principal**

**A Truly Helpful Environment**  
 for your daughter at the period when her character is being formed.

**Alma (Ladies) College**

For prospectus and terms, write the Principal 60  
**R. I. Warner I.L.A., D.D., St. Thomas Ont.**

**CENTRAL Business College**  
 STRATFORD, ONT.

Canada's best practical training school—with Commercial, Shorthand and Telegraphy departments. Students enter each week. Write for our free catalogue. **D. A. McLachlan, Principal.**

**Winter Term Opens January 4th, 1915**  
 at  
**The Northern Business College**  
 OWEN SOUND, ONT.

Our catalogue tells you why the Toronto "Globe" said: "It is the foremost Business School in the Dominion." Write for it.  
**C. A. FLEMING, F.C.A. G. D. FLEMING**  
 Principal Secretary

# The Farmer's Advocate and Home Magazine

PERSEVERE  
AND  
SUCCEED

ESTABLISHED  
1886

REGISTERED IN ACCORDANCE WITH THE COPYRIGHT ACT OF 1875

Vol. XLIX.

LONDON, ONTARIO, DECEMBER 17, 1914.

No. 1160

## EDITORIAL.

He is careless who keeps a dirty stable.

This is a business war.—Buy Canadian-made goods.

Weed out the inferior stock at the beginning of winter.

Do not keep live stock but make the live stock keep you.

The farmer who depends upon "luck" generally has "bad luck."

Waste no time in regretting the past—make good now and in the future.

Remember that winter is a better time to cut wood than summer. Cut it now.

Peace may yet be just as reassuring in 1915 as war has been disrupting in 1914.

Straw is considered by good stockmen to be almost as valuable for bedding as for feed.

The cheese factory is proving itself one of the most dependable mainstays of the dairy industry.

Old timers tell us that our Winters do not come as early as they did years ago, neither do our Springs.

Give the boy a colt, a calf, a pig or a lamb to feed and care for this winter and watch him out-do his dad.

A mangel a day keeps the veterinarian away from the calf, and a turnip a day will do the same for the colt.

There are those who claim that Indian Summer always comes in November. We think it was a month late this year.

The annual school meeting and nomination for township council should divert some of the war interest to other channels.

This Christmas season will be robbed of much of the usual merriment but the spirit of giving is in evidence as never before.

The man who reaches the height of his ambitions rarely has his ambitions set on the top rung of the ladder.

The farmer "out of a job" is drifting into a dangerous current composed of carelessness, listlessness, laziness and inefficiency which may swamp him.

Get more light into the stables by cleaning up the windows on a mild day. It is not often there is too much glass but frequently there is too much dirty glass.

Some of the war correspondents said to be "eye-witnesses" of the fighting must have a long range of vision, for we understand that Kitchener and Joffre allow them within twenty miles of "the front."

### Laying Plans for 1915.

The winter season affords an excellent opportunity for the man on the farm to lay his plans for next year's operations, and in this he has many chances to get new ideas from his reading and from winter meetings which are held in his own neighborhood. At the present time the Province of Ontario is fairly well covered with Farmers' Institutes, Farmers' Clubs, Fruit Growers' Associations, Seed Growers' Associations, and other farmers' organizations of which he should take full advantage. The winter season in most of these is given over to a series of meetings with prominent outside speakers to help out the local talent and the whole if properly conducted, and properly supported by the men of the district should help each and every farmer in that locality.

So often, after the chores are done at night, the farmer feels more like toasting his shins at his own fireside than driving from one to three miles to the nearest village to attend a meeting. However, it would be to his own advantage in most cases if he made it a point to attend every one of these meetings, and, when there, to take part in the discussions and help make the meeting interesting and of value to all in attendance. We have been at Farmers' Institute meetings and Farmers' Club meetings where only a mere handful turned out and where discussions were slow and draggy because the one or two particular speakers of the evening had to do all the talking. Nevertheless valuable information was given.

At these meetings the subjects discussed are generally those which directly affect the farmer, and the problems being threshed out are those which he is called upon to meet each year in his operations. He must have, from practical experience, learned something of value, which, were he to relate it to the others, would make the meeting more interesting and of more value to all, would help himself as well as the others, and would if followed out by all in attendance at all the farm organization meetings throughout this and other provinces give a direct impetus to agriculture.

When a meeting is announced to be held in a village, some are prone to make the statement that they know as much about the particular subject to be discussed as the speaker and do not think it worth while attending. This is a wrong conception to take of the matter and even though a man is well versed in the topic to be discussed he should be there to hear what the other fellow has to say and to give the others the opportunity of learning what he knows about it. During the coming winter a large number of meetings will be held throughout the country, all intended to help the farmer to help himself in the business in which he is engaged. You cannot get the benefit if you do not attend.

We are told that we must increase production. Every good farmer aims at this each year. If we increase production to a large extent we must have better systems of marketing or trouble will surely come. These two subjects are going to be of prime importance during the coming winter and no farmer can afford to miss discussions of the different problems which come up in working out the desired end. As a first step in planning the work for 1915 we would suggest that every meeting of farmers for farmers be attended by every farmer in the community in which it is held. We need farmers who can think and express their ideas. There is no place where they have a better

opportunity than at one of their own meetings. Let them avail themselves of the opportunity offered, and see how soon a mere handful in attendance will be swelled to numbers which will tax the capacity of the building and the lukewarm interest will be changed to a live and even spirited meeting with large numbers taking part and profitable discussions resulting invariably.

If the farmers of this country ever expect to make the most of their case they must get together and thresh it out. This winter is the time to begin. Regular attendance at such meetings, where all go, not to scoff, but to learn something and to help their neighbors, will surely aid in planning the work for another year, in fact it may so revolutionize the plans of the careless man that his 1915 operations will be a success in place of a partial or total failure.

And while on this subject carry some of this discussion to "The Farmer's Advocate." Give our readers the benefit of your ideas born of experience. All hands together for bumper returns in 1915. Our columns are open. We are anxious to help.

### Short and Long-term Leases.

One of the most common sources of trouble between tenant and land-owner in this country comes as a direct result of short term leases. When a tenant rents a farm and gets a lease running anywhere from one to five years no one can blame him very much if he tries to make the most out of the deal and in the result robs the land. Of course, we do not believe that it is good policy even for a short-term lessee to run the land to death but if his lease only runs for a year or two one can naturally expect that he will crop all the land that he can get under cultivation and that he will use all the methods known to himself to stimulate the land to the greatest possible production during these two years, caring very little about the condition in which he leaves the farm for the next tenant.

Landlords almost invariably take exception to this form of mining the soil but many do not look in the right direction for a remedy by which the evil may be overcome. In the first place, a lessor should be sure he is getting a good tenant and then to be fair to himself, his tenant and his farm, he should by all means secure long-term leases on his property. True, some lands are rented in this country on ten-year leases but we have heard of very few longer than this period. A great many more are leased for a five-year period and thousands for one and two years, these latter being as a general thing, after a few years of renting, considered as run-down farms cropped to death. In Mr. MacNeilage's article in our Christmas number methods of leasing in Scotland were discussed in which he pointed out that the term of legal tenancy in that country is nineteen years and that a tenant who improves the land in that time receives the full benefit of his improvement.

If our land-holders who rent to tenants would get longer term leases and give the tenants full benefit from their efforts in improving the soil and farm steading there would be much less trouble between landlord and tenant, much better satisfaction for both and a higher state of fertility on rented farms in this country would undoubtedly result. No tenant can really afford to slight his farming operations, neither can he, if he be a long-term tenant afford to "run" the land because from this land he must get his returns in follow-

## The Farmer's Advocate

AND HOME MAGAZINE.

THE LEADING AGRICULTURAL JOURNAL IN THE DOMINION.

Published weekly by  
THE WILLIAM WELD COMPANY (Limited).

JOHN WELD, Manager.

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

1. THE FARMER'S ADVOCATE AND HOME MAGAZINE is published every Thursday. It is impartial and independent of all cliques and parties, handsomely illustrated with original engravings, and furnishes the most practical, reliable and profitable information for farmers, dairymen, gardeners, stockmen and home-makers, of any publication in Canada.
2. TERMS OF SUBSCRIPTION.—In Canada, England, Ireland, Scotland, Newfoundland and New Zealand, \$1.50 per year, in advance; \$2.00 per year when not paid in advance. United States, \$2.50 per year; all other countries, 12s. in advance.
3. ADVERTISING RATES.—Single insertion, 25 cents per line, agate. Contract rates furnished on application.
4. THE FARMER'S ADVOCATE is sent to subscribers until an explicit order is received for its discontinuance. All payments of arrearages must be made as required by law.
5. THE LAW IS, that all subscribers to newspapers are held responsible until all arrearages are paid, and their paper ordered to be discontinued.
6. REMITTANCES should be made direct to us, either by Money Order, Postal Note, Express Order or Registered Letter, which will be at our risk. When made otherwise we will not be responsible.
7. THE DATE ON YOUR LABEL shows to what time your subscription is paid.
8. ANONYMOUS communications will receive no attention. In every case the "Full Name and Post-office Address must be given."
9. WHEN A REPLY BY MAIL IS REQUIRED to Urgent Veterinary or Legal Enquiries, \$1.00 must be enclosed.
10. LETTERS intended for publication should be written on one side of the paper only.
11. CHANGE OF ADDRESS.—Subscribers when ordering a change of address should give the old as well as the new P. O. address.
12. WE INVITE FARMERS to write us on any agricultural topic. We are always pleased to receive practical articles. For such as we consider valuable we will pay ten cents per inch printed matter. Criticisms of Articles, Suggestions How to Improve "The Farmer's Advocate and Home Magazine," Descriptions of New Grains, Roots or Vegetables not generally known, Particulars of Experiments Tried, or Improved Methods of Cultivation, are each and all welcome. Contributions sent us must not be furnished other papers until after they have appeared in our columns. Rejected matter will be returned on receipt of postage.
13. ADDRESSES OF CORRESPONDENTS ARE CONSIDERED AS CONFIDENTIAL and will not be forwarded.
14. ALL COMMUNICATIONS in reference to any matter connected with this paper should be addressed as below, and not to any individual connected with the paper.

Address—THE FARMER'S ADVOCATE, or  
THE WILLIAM WELD COMPANY (Limited),  
London, Canada.

ing years, the terms of the lease making it necessary for him to reap in after years the results of his labor or his folly in former years. The tenant who farms and farms well, who makes it a point each year to build up his land just a little more than he takes out of it in cropping, invariably makes the most of his farming operations in the end and he is the class of tenant that the landlord desires to have on his place. When he gets this kind of man, he should give him enough security of tenure to warrant him going ahead and putting forth his best efforts to be the best farmer in his neighborhood. Longer termed leases would do a great deal for the farms that are operated year after year under a leasing system.

### Subscribers, Attention!

The Farmer's Advocate wishes to advise all its many subscribers against the all too common practise of paying their subscriptions to this paper, renewals or new names, to parties not authorized by the publishers to accept such money. Editors and representatives of small-town local papers, and postmasters are not authorized agents of "The Farmer's Advocate" and parties paying their money to such must do so at their own risk. In order to keep a check on all subscription work we would also ask our subscribers to watch the date on the label of their paper and see that it is properly changed when remittances are made or subscriptions paid to our agents. This is important.

If you have had any valuable experience during the past season, give our readers the benefit of it by writing an article for our columns. As a practical farm paper we want the ideas of the practical farmer.

## THE HORSE.

### Follow the British Horseman's Lead.

Over in the Old Country, which is recognized by stockmen practically the world over as the stud-farm of the stock-breeding industry, horse breeders are laying plans to increase the number of foals raised another season. The war has taken a heavy toll in the horse-breeding industry of Britain, but, fortunately wherever possible the mares have been left to raise their colts and the future of the industry is assured. In Canada, there is a great deal of pessimism due to the fact that horse sales have slowed up very materially. Our breeders might well, we think, take a leaf out of the British horseman's book and put forth every effort next season to increase the number of foals raised. It may look a little precarious at the present time when horses are not moving very rapidly but the time must come within the next few years when good horses will meet as ready sale as they have done any time within the past decade and we have seen some good prices and a brisk trade in that time. The thousands and thousands of horses which are being sent to the front will never return to their own work when peace is assured. Their places must be filled by other animals. Almost all trade has been affected by the war but when the war is over and militarism crushed, economists tell us that after a few years of necessitated depression excellent times are ahead. When these come, trade expansion will be great, all kinds of business will boom, more horses will be required to carry on this business and as a consequence the horse business will benefit.

The man who looks ahead is generally the winner. Following every period of depression in the horse market has come another period of brisk business, because, in depression no one breeds horses and there soon is a scarcity. A scarcity increases the demand which invariably shoves up the price. Notwithstanding the fact that there are a large number of saleable horses in this country and horses which are on the market, we see no reason why the breeding end of the business should not be pushed another season that those now having the right kind of brood mares may reap the benefit of the enhanced market which must come as a result of the depletion of the world's horse supply by the dreadful slaughter in Europe.

### The Development of Horse Warfare.

Editor "The Farmer's Advocate":

Horses were used for war in England long before the eleventh century. Caesar, when he invaded the country, found that the islanders used war chariots, and everyone is familiar with the story of the heroic Queen Boadicea. But the horses used were very small, and this is probably one of the reasons why chariots were used. The breed, native to the country, was, however, improved by the importation of Roman stallions.

The Teutonic tribes, who settled in Great Britain in the fifth century, were essentially seamen and foot soldiers. This is shown by the Anglo-Saxon graves, for, although a warrior was always buried with his weapons and his shield, it is rare to find horse-bits and trappings as well. So it seems that the Anglo-Saxons were not a nation of horsemen, and that they were accustomed to fight on foot. What horses they had were used for pack animals, since ploughing was always done by oxen. In fact, at a very much later date, in Wales there existed laws forbidding the use of horses at all for the purposes of agriculture.

At the battle of Hastings, the English army fought on foot. There had not been wanting reformers, even in those early days, who were opposed to this manner of fighting. It was known that the Normans across the Channel combined the use of cavalry and archers in the attack, and this tactical development was viewed in this country with some dismay. In the middle of the eleventh century the captain of the garrison of Hereford directed his followers to serve on horseback, so as to accustom them to the manner of warfare on the Continent. But nothing was done as this was considered contrary to the English customs—an excuse which seems to have a modern flavor—and it was left to a conqueror to prove on the field of battle how obsolete English training was.

At Hastings then, the English were drawn up, from their king to his humblest follower, on foot, covered by their shields, shoulder to shoulder, and forming an impenetrable mass against the hostile charges of the cavalry. They were some 20,000 in number, and they were attacked by from 15,000 to 20,000 archers and by about 12,000 horsemen.

There was one more trial between the two systems. Some of the English who would not submit to Norman rule, enlisted in the famous Varangian Guard, and, about fifteen years after the Battle of Hastings, they met the Normans at

Durazzo. True to their tradition they dismounted and fought on foot. Not a man escaped alive, and nearly three centuries passed before infantry, unsupported by cavalry, made an attempt to stand in the open.

It was therefore due to the Norman Conquest that cavalry were first used in England for war, and the requirements of the great war-horse did not change throughout the age of chivalry.

The favorite breeds were Spanish, and these in their turn were derived from the inter-breeding of the European horse with the Libyan or North African horse.

During the age of chivalry the great horse, or war-horse was a necessity in all warlike operations. From very early times men had been accustomed to wear some form of defensive armor, and so the large breeds of horses were developed. These horses, as one might expect, were capable of carrying a very heavy weight. A man fully armed, and his charger protected with armor, imposed a burden of not less than 32 stone on his horse, or about twice the weight a very heavy-weight hunter is expected to carry nowadays.

Horses of the right stamp were very scarce in England through all the age of chivalry. Some of our kings tried to remedy the deficiencies in various ways. King John imported 100 Flemish stallions, and thus laid down the foundation of the modern cart horse. But Edward III., was the first of our rulers to study seriously the improvement of the English horse, and it was in his reign that breeders began to cross the heavy English breed with horses of a lighter structure and of greater speed. The King imported Spanish horses, paying 1,000 marks for eighty animals. These arrived safely in England at a cost of £180 each, reckoning in the money of to-day. He also improved the native horse by forbidding their export abroad, as apparently even then foreigners improved their horses by importing English blood.

Edward was at one time in debt to the Court of Hainault for a sum of £25,000 which he had spent on horses, insisting on having the best of horseflesh, whether he could afford to pay for it or not. But, in spite of his efforts, the English cavalry in the wars of 1346 were badly mounted, and large numbers of foreign horses had to be bought for them.

From Edward III.'s reign to that of Henry VIII., little is known of the development of the English horse. Henry VIII. imported horses from Turkey, Spain, and Naples, and he enacted laws for the improvement of the native horse. Each park-owner had to keep from two to four brood mares not less than 13 hands high, and no stallions under 14 hands were allowed for breeding in the commons, chases, and forests; no stallions under 15 hands were allowed to run free. Gelding was introduced about this time.

In Elizabeth's time there was still a scarcity of horses, and in 1588, the year of the Spanish Armada, only 3,000 horses could be mustered, and these were said to have been strong, bulky animals, slow in action and only fit for agriculture or draft, and very indifferent chargers. It was a penal offence at this time to make over a "horse to the use of any Scottish man." Coaches were also introduced, an invention which marks out a new stage in the history of the English horse.

Blundeville, writing in 1580 of what he considers the best breeds, includes the Turk and Barbarian in his list, and says that the horses that "we commonly call Barbarians do come out of the King of Tunisland, out of Massilla Numidia, which for the most part be but little horses, but themselves very swift and able to make a long carriere, which is the cause why we esteem them so much."

These Eastern horses soon produced their effect in improving the native horses, and in the middle of Charles I.'s reign there were considerable numbers of horses of the hunter type in England; it was on such horses that Cromwell managed to mount his Ironsides, at a cost of some £18 for each horse. The great Protector knew his business well. There is a letter from him, dated November 11th, 1642, which must remain a model for the needs of the horse-soldier. It runs:—

"Dear Friend,—Let the saddler see to the horse gear. I learn from one many are ill-served. If a man has not good weapons, horse and harness, he is as nought.—From your friend, Oliver Cromwell."

Charles II. was the true founder of the system of breeding which produced the Thoroughbred horse of to-day. He sent his Master of the Horse to the Levant to buy mares, principally Turks and Barbs. The influence of the Libyan horse must still be noticed. The result of these purchases were the celebrated royal mares, from which our racehorses are for the most part descended.

In William II.'s reign the first of the three most celebrated Eastern sires was imported. This horse was the Byerley Turk, and was the charger of Captain Byerley in King William's wars in Ireland. This is the first instance which the writer has found of the close connection which

there ha  
ing, to  
thought  
to Epsc  
are wat  
charger.

A fe  
importe  
Arabian  
phin Ar  
he was  
lin, and  
called  
Arabian  
and was  
the day.

The  
gradual  
live in  
and in  
Cavalry  
and for  
ually d  
deriving  
native  
and the

### Butch

Editor "

"Say  
time you  
mer?"

"Yes.

"Well

ing in t

Withi

recipe—

ness and

"The F'

words b

poor, sh

his hog

dollar

close a

which th

When

I butche

the shad

weather

ning tha

flies are

a thin c

blowing

When

the occas

laded, sh

attired,

loaded 2

open the

one of th

selected

marked

piece of

togs are

out of th

when the

meal, a

his trot'

the gate,

drawn o

cross and

that the

is pulled

ward and

directed

will stru

time for

At the

rifle: (

by elimin

safer, gu

while cha

or bitten

keeps dov

prevents

the hog

Thus the

in peace

humor.

As au

or hauling

blackens

spoil I d

then if a

side and

roll him

where he

The fu

or kettles

This wat

than in a

takes less

of dogs,

there has always been between racing and soldiering, to which our army owes so much. But it is thought that few soldiers remember when they go to Epsom or Ascot that in all probability they are watching some of the descendants of an Irish charger.

A few years later, two other stallions were imported, the Darley Arabian and the Godolphin Arabian. It was quite by chance that the Godolphin Arabian was a success at the stud. In 1731 he was used as teaser to a horse named Hobgoblin, and when the latter refused to serve a mare called Roxana, she was put to the Godolphin Arabian. Her first foal by him was called Lath, and was one of the most celebrated racehorses of the day.

The great war-horse served his part, and gradually disappeared. His descendants still survive in the cart horse, in the State coach horse, and in the black chargers of the Household Cavalry. As the need of swifter horses for war and for pleasure arose, so the modern types gradually developed, the racehorse and the hunter deriving their size and strength from the old native strains, and their beauty, their courage, and their endurance from the Eastern sires.

G. T. BURROWS.

## LIVE STOCK.

### Butchering and Meat-curing at Any Season.

Editor "The Farmer's Advocate":

"Say Carter, is it so that you kill a pig any time you need pork whether it be winter or summer?"

"Yes."

"Well, how do you keep the meat from spoiling in the summer?"

Within the past year so many have spoken thus to me, that I am led to believe that my recipe—which is nothing more than salt, cleanliness and care—may be welcome to the readers of "The Farmer's Advocate." If I may say a few words before I begin, let me say that he is a poor, shiftless farmer indeed who in summer forces his hogs to wallow leg-deep in filth, slaughter-house style, when a few hours' work and a few dollars spent in posts, lumber and wire will enclose a plot of grass a hundred feet square in which they may move in comfort.

Whenever I need pork and the knives are sharp I butcher, no matter whether it is 90 degrees in the shade or not. To be sure in real warm weather I delay butchering till so late in the evening that I finish merely by dark, then, if the flies are still numerous and buzzing about, I pin a thin cloth about the carcass to keep them from blowing on the meat.

When about to butcher, one should dress for the occasion. One's clothes, however patched and faded, should at least be clean. When properly attired, I arm myself with a butcher-knife and a loaded 22 calibre rifle and go to the hog lot, open the gate and move the hogs about until any one of the two or three, which I have previously selected as being ready to butcher and have marked along the back with washing blue or a piece of charcoal (this is easily done when the hogs are being fed) to avoid a mistake, walks out of the enclosure. I then close the gate and when the hog stops to partake of a handful of meal, a few potatoes or such feed, which "to halt his trot" I have placed for him a few feet outside the gate, I take aim at a point where lines, if drawn obliquely from the ears to the eyes, would cross and shoot him down. Care must be taken that the hog's head is well up when the trigger is pulled, otherwise the bullet would pass downward and below the brain. If the shot be well directed the hog will drop and for a few moments will struggle but little, thus allowing plenty of time for sticking him.

At this point let me explain why I use the rifle: (1) It is more humane. (2) It saves time by eliminating the racing and chasing. (3) It is safer, guarding as it does against one falling while chasing the hog or getting kicked, scratched or bitten while throwing and holding him. (4) It keeps down the temperature of the hog. (5) It prevents a display of stubbornness on the part of the hog and temper on the part of the butcher. Thus the work commenced in order, is conducted in peace and ended with the butchers in good humor.

As any pounding of the hog while catching him or hauling him about while there is a kick in him, blackens the meat and makes it more prone to spoil I do not stir him until he is "stone" dead, then if a light hog I turn a wheel-barrow on its side and roll him into it, or if a heavy pig, I roll him onto a stone-boat and convey him to where he is to be scalded and scraped.

The full of a wash-boiler and a couple of pots or kettles of water is sufficient to scald a pig. This water I heat on the stove indoors, rather than in a sugar kettle outdoors. 1st, because it takes less wood; 2nd, because there is no danger of dogs, cats or poultry catching fire from sparks

and racing under some building etc., and setting it on fire. For a scalding and scraping table I use a 12-foot Rock Elm plank, 15 inches wide, placed on two blocks 20 inches high. This plank has been used for such purpose for the past 15 years and is still sound. When butchering is over it is thoroughly cleaned and placed on two blocks outside the wood-shed door where it serves for a seat, washing table etc. For a scalding tank I use a 45-gallon vinegar barrel slanted against one end of the plank which protrudes a couple of inches beyond the block. Four small-sized blocks, one placed at either side under and against the chimes, one below and against the

scraping table it has been arranged to have the hanging post within four or five inches of the side of the plank and a couple of feet nearer the barrel than the rear end block. On top of this block and beneath the plank, place a square-faced block a foot thick. Draw the pig back heels first until his neck is opposite the post: stand him on his head and there will be little difficulty in slipping the gambrel stick over the hanging bar. My hanging post is an 8-inch ironwood sunk 4 feet in the ground with a hole bored through it east and west, 5 feet 8 inches from the ground. Through this hole there is a four foot piece of 1 1/2 inch

crow bar. If the wind be from an easterly point when I butcher, I hang on the east end of the bar and when from the west on the west end. If the wind be decidedly north or south I attach a piece of soft wire to one end of the gambrel stick, turn the pig so that the wind can blow against the inside of the ribs and then pass the wire around the back of the post giving it a twist around a nail there and then pull it tight and fasten the free end to the other end of the gambrel stick. This prevents the latter from turning off the end of the bar or sliding sideways and knocking one end loose in either case letting the pig fall to the ground. Wash the pig off well, then open it and, when dressed, throw three or four pails of clean cold water into it to rinse and cool it. Let the pig cool for two or three hours, remove it and cut it up and salt it. This may take you till a little past midnight, but satisfaction later will make up for the loss of sleep.



Lady Irene.

Sire, Ganymede; dam, Bloom of Ironsides. First-prize yearling filly at London, 1914, for G. A. Attridge, Muirkirk.

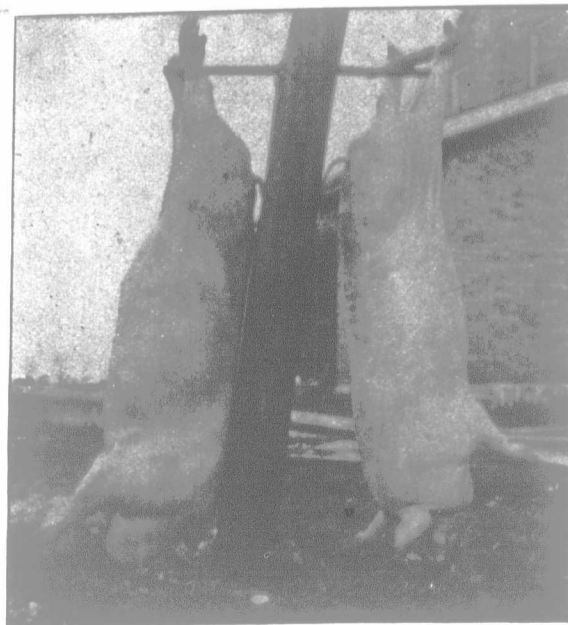
bottom and one on the under side against the staves serve to keep the barrel in place while the pig is being scalded.

To avoid heavy lifting while tabling the pig, I remove the plank from the block furthest from the barrel. A roll over places the pig upon it, then I pull the pig down towards the barrel end after which the plank is easily restored to its former position. A handful of ashes is added to the scalding water and the pig, while being scalded, is kept on the move. A good scald results and in removing the bristles the thin outer layer of skin comes off. Never leave this tissue-like skin on, otherwise the pork is liable to taste strong and will be harder to cure. A couple of horse-shoe nail boxes weighted each with a brick

tion later will make up for the loss of sleep. Cut the hams and the shoulders and remove the bones. Some meat of course will cling to the bones. The salt will now have a good chance to penetrate the thick hams and the shoulders. Salt the meat heavily and place in a wooden tub or half barrel, skin side down (salt has a chance to soak down into the meat) and the sides placed on top of the hams and shoulders (the weight helps to force the brine out of the thick pieces) and cover with paper or thin cloth to exclude flies. Let it stand a day and a night to brine off: then remove the meat: pour off the brine: clean the tub: sprinkle some salt in the bottom of the tub: rub the meat lightly with dry salt: replace in the tub and again cover it. In case it brines again, which sometimes happens, repeat the above. Salt the bones the same as the meat and place in a crock by themselves and handle them the same as the meat. Keep the cellar windows down in daytime to exclude the heat and up at night to allow the cool air to enter. Overhaul the meat in the course of a week and if there is any sign of mould or, if it feels slippery, rub lightly with dry salt, enough of which perhaps is still adhering to the meat. This does not make the meat saltier but merely helps to dry it. Owing to May, June, July, August and September being warm months I remove the ham and shoulder bones when butchering, at other seasons I do not. I do not use ice in the cellar. I have screens on all cellar windows, outside doors and windows but yet I find it absolutely necessary to keep the meat covered as one fly might spoil the whole tubful. The above method of butchering and summer curing of pork has been practiced on this place for the past thirty-two years and has given entire satisfaction. A friend of mine who had but recently adopted this method told me that his wife liked it and so did his children, but he didn't. When asked for his reason, he said: "well, it is just this way, the pork is such an improvement on the old rusty variety that we eat a pig up in a trice, consequently it is expensive,—and with a broad grin—still I guess I'll put up with the expense and I'm mighty glad you put me wise."

Middlesex Co., Ont.

ESLIE CARTER.



Two Good Ones Hung.

and placed, one at either end of the hog, will serve as useful receptacles for catching and holding the bristles. Wipe the knife on the edge of these instead of on the overalls, grass or table, a slovenly procedure bound to make cleaning up all the harder. Right here let me say there should be a cleaning up, as a sight more disgusting than a lawn or chip yard bewhiskered with flood-and slough-clotted bristles, is not easily imagined.

After the scraping, the next thing is suspending the pig. This is easily done if in erecting the

The Autumn work well completed should mean Spring work advanced next April. There is a big crop to be put in and Spring will surely be a rush season in any case.

In an effort to cut down the cost of feeding, some are sure to feed so little that they go past the limit of economical feeding.

### Abortion in Cattle.

Abortion is the expulsion of progeny at any time before the completion of the full period of a normal pregnancy. Abortion is of two kinds, accidental and contagious. It is practically impossible to distinguish one sort from the other although causes differ widely.

#### ACCIDENTAL OR NON-CONTAGIOUS ABORTION.

**Causes.**—Poor condition, weakness, thin blood, and such results of poor nutrition.

2. The depletion of bodily strength by diseases, worms or excessive loss of blood.

3. Chronic diseases, such as bloat, diarrhoea, kidney troubles or indigestion.

4. Putrid drinking water, ergot on grasses, smut on grains, rust on grains and grasses.

5. Falls on smooth planks and concrete floors, icy yards, narrow doors, riding other cows, and in any other way straining muscles of hind quarters.

6. Stands with a too great slope to rear, or deep gutters in which cattle stand hind feet.

7. Excitements and presence of blood, dead carcasses, dead foetus, afterbirth and such, especially if in putrid condition.

8. Irritating poisons, powerful purgatives, lack of mineral matter in ration, or the like, which derange the digestive system and induce abortion.

**Treatment.**—Eliminate causes and place in quiet stall. If foetus has not died, nor water bags been presented, administer laudanum in 1 to 2 ounce doses (depending on size of cow) and repeat in three or four hours should labour pains recur. If laudanum does not give permanent results use Extract of Black Haw (*Viburnum prunifolium*), (40 grains) every three hours for one day.

In cases where the cow shows first signs of abortion, the writer has had good success in mixing 1 tablespoonful of Black Haw with meal feed morning and evening and continued for a week or longer if necessary.

#### CONTAGIOUS ABORTION.

Contagious abortion is the scourge of the stockman. This disease is seen where a cow continues to calve prematurely year after year with no apparent external cause, or where a large number of cows, all bred to the same bull, calve prematurely, or where cows in direct contact with a cow which has previously calved prematurely, in turn also calve prematurely. It is a germ disease and easily contracted by healthy individuals. The germ lives on the lining membrane of the womb, causes catarrhal inflammation which in turn causes expulsion of foetus.

**Causes.**—1. The germs contracted from bulls which have previously served diseased cows.

2. The germs contracted by rubbing rumps with infected cows, or contact with doorway, fence posts, or bedding previously rubbed by infected cows.

3. The transferring of discharge from infected individuals to healthy cows by means of hands or clothing of attendants.

4. The presence of dead foetus, afterbirth, or discharge on bedding, manure, or any place where healthy animals may come in contact with it.

Unless freshly infected cows are introduced, the disease tends to run out in a herd in the course of three or four years. It frequently happens that sterility (barrenness) follows this disease, a condition thought to be due to the acid state of the uterine contents caused by the germ.

**Symptoms.**—Cows may abort at any stage of pregnancy, but it usually occurs during the third or seventh month. As a rule, the symptoms are a swelling of the udder, a dirty, reddish, purulent discharge from the genitals, a decrease and change in the character of the milk, and the dead foetus which is generally expelled three days after the appearance of the discharge. Abortion early in the pregnancy is often undetected until a short time before the date of expected calving, when the stockman is quite surprised to find the animal showing signs of heat.

The important thing is to distinguish the early symptoms so that the tendency may be arrested and the calf carried full time if possible.

The cow is dull, sluggish, separate from the herd, chewing the cud languidly, frequently lying down and rising, uneasily moving the hind feet and tail; the pulse and breathing fast and muzzle dry.

Usually contagious abortions in a herd follow one another at intervals of from one to five weeks.

#### METHYLENE BLUE, A REMEDY FOR INFECTIOUS ABORTION.

During the past twenty years many various disinfectants have been experimented with as a cure for contagious abortion. The latest material and one which gives promise of most pronounced success to date is methylene blue. Particular attention is drawn to the fact that purchasers should not confound this material with methyl blue and in purchasing the methylene blue should obtain only the highest grade of medicinal character and not the commercial product. Probably at no experiment station has there been such complete work with this treatment as at the Vermont Agricultural Experiment Station, Burlington, Vt. Dr. F. A. Rich, of this station, who has conducted this work, carried on extensive experiments in the bacteriological laboratory and extended this to an actual trial of this material with a herd of ninety-two infected cows. The results of his experiment for the first nine months were most striking. Only one animal of the ninety-two infected aborted during the nine months, and during the same period fifty-six of these calved normally while thirty-five appeared in natural condition five months or more after being served.

Based on the success of the above mentioned experiment, a somewhat similar line of work was started on the Experimental Farm, Ottawa, in the fall of 1913. Owing to the fact that seven cows and heifers had aborted in midsummer of the same year, the test for abortion was applied to these and other individuals suspected, together with all individuals in the barns associated with such cases. As this test for abortion is a long and difficult one, it was considered advisable to treat the whole herd until complete results of the agglutination tests were discovered. Fifty-two cows of the five dairy breeds were at first treated. During the nine and a half months following the initiation of this test only one cow has calved prematurely, which in itself appears to warrant the use of methylene blue as a preventative of abortion. During the months April to July, inclusive, of the year 1914, only such cows as had previously aborted or responded to the agglutination test were fed methylene blue. Although it is too early to draw definite conclusions, yet it may be stated that four cows which aborted in 1913 have not only carried their calves the normal period, but have ceased to re-act to the test, while three cows and one heifer which had no apparent reason been sterile, have become with calf and are now nearing their normal period of gestation.

#### INTERNAL TREATMENT.

At the beginning of the test on the Central Experimental Farm the treatment outlined was the feeding once per day for the first seven days of each month, throughout the period of gestation, of methylene blue in the powdered form in one-half ounce doses mixed with ensilage. However, owing to the results of further experiments conducted by Dr. F. A. Rich, this treatment has been changed. The method of application now advocated is as follows:—Give each cow which has either aborted at her last calving or which gives any evidence or suspicion of being infected, one heaping teaspoonful or more of methylene blue once per day for five continuous weeks. We have discovered that considerable waste is involved when the powder is scattered over the roughage. In consequence it has been found advisable to put up this quantity in one-half ounce gelatine capsules. Another method which may be followed with equal economy would be the feeding of the compressed methylene blue as purchased from the Bluetts Company, Tenney Block, Madison, Wis.

How methylene blue does its work is readily understood when one considers that thirty minutes after feeding a large portion of the dose has been absorbed by the blood. Methylene blue has been found many times stronger than carbolic acid or other disinfectants in the killing of the abortion germ. This coupled with its enormous dif-

fusability throughout the animal's system would appear to give it some distinct advantages over other disinfectants. If fed in large quantities (four ounces or more) it would often color the milk and even the meat of an animal, yet without injurious effects. In the regulation half-ounce dose the effect is to color the urine slightly green and the manure slightly blue. From this it might be readily surmised that the stomach, intestines and kidneys, together with the external passages, would be thoroughly disinfected, thus preventing the spreading of the abortion germ from one individual to another. Results seem to point also to the carrying of the disinfectant through the progeny in utero and the surrounding membranes.

The size of dose has absolutely no ill effect upon the cow, the above recommended dose having been largely increased with certain individuals and the only effect noticed being the stimulating of the appetite.

#### EXTERNAL TREATMENT.

Coupled with the above described feeding the following precautions must be taken:—

(1) After aborting the afterbirth, the foetus and all infected bedding should be burned or deeply buried. The hind parts of the cow should be carefully sponged with a one per cent. lysol solution or ten per cent. carbolic solution.

(2) The stable should be thoroughly cleaned and disinfected, especially in the immediate vicinity of the calf pen or stall where abortion occurred. Probably the safest disinfectant is a solution of one to one thousand mercuric bichloride given in three applications two days apart. If this intermittent disinfection is impossible, double the strength of the above mentioned solution.

(3) Immediately after aborting, give an injection into the cow's uterus of a methylene solution consisting of a heaping teaspoonful of methylene blue and one ounce of salt to a gallon of boiling water, the whole cooled to about 105 degrees F.

(4) The sheath of the bull used on any cows affected with abortion should after each service be washed out with a one per cent. lysol or the above mentioned methylene blue solution.

#### COST OF METHYLENE BLUE.

This material in the powdered form costs \$2.75 per pound at local druggists in Ontario. Attention is again called to the compressed (Bluetts) form, which is more economical due to less waste in feeding.

#### BLACK HAW TO PREVENT ABORTION.

Although this treatment is by no means recommended for the killing out of the abortion germ in the cow or calf, as in the case of methylene blue, yet it has been found possible to hold off an abortion for some days, or possibly weeks, by the feeding of an internal astringent. In cases where cows show symptoms of calving before their time they have been placed in a dark and quiet stall and given one ounce doses of Black Haw (*Viburnum prunifolium*) repeated, if necessary, after three hours until the pains subside. In cases where the normal preparation for calving is premature, thus indicating abortion, one ounce doses daily for a week have in many cases been effective in bringing back to normal the vulva and the pin bones. However, it is advisable that care be taken with this treatment and that it only be used in cases of emergency.

F. S. ARCHIBALD.

Dominion Animal Husbandman.

#### Counsel for the Winter Feeder.

The cattle that have this fall gone into the stall or feed-lot for winter feeding vary in condition. Some are thin, while others are fit already. Those that were subjected to poor pasturage will require different treatment from those off good grazing land augmented, perhaps, by a field of rape or second-growth clover or alfalfa. This article does not aspire to discuss the technique of feeding fattening cattle. The object is to analyse the feed question and draw some deductions as to costs and probable profits which might accrue from different methods in these times of high-priced feeding stuffs.

To consider this matter together it is necessary to remember that protein such as is common in clover, alfalfa bran, oil-cake or cotton-seed meal contributes to the vigor of the body by replenishing the muscles, the supply of blood and strengthening the whole animal system. Carbohydrates and fats, for which we look to corn, wheat, roots and such, are energy and heat givers and the source of fat. Of the latter two food constituents, fat is much superior. In fact, it is practically two and one-quarter times as valuable as the carbohydrates which consist largely of starch and sugar. Then it must be further borne in mind that a relation exists between protein and the carbohydrates and fats and is known to students as the nutritive ratio. Steer feeders are not required to worry their minds so much about the relation of these foods as the dairymen are for the high-producing cow is a delicate machine that



A Nice Flock in a Fine Field.



must be fed in accordance with the rules of nature and science or loss will result. However, the fat animal, well on toward the finishing stage, will not return profits on a superfluous amount of protein when it is carbohydrates that he requires, neither will carbohydrates alone start the feeder off in a thrifty manner when his system requires more bone, muscle, blood and a general upbuilding. Only as we understand the animal and its requirements can we feed with wisdom. The long-experienced herdsman may have no conception of what protein, carbohydrates and fats may mean and he has no need to know, because his trained eye tells him that a certain animal requires something contained in corn, in roots, in silage or in oil-cake meal. He feeds each as the results warrant and accomplishes his purpose but when he comes to substitute a cheaper food for one of high cash value he is at a loss to know what affect it will have, wherein its usefulness lies, and what the result will be. Herein lies the value of a knowledge of feeding stuffs and the terms applied to them.

The first matter to engage the herdsman's attention is to get the stock on their feed and make as easy as possible the change from pasture to stall conditions. Where clover or alfalfa hay is available each should have a good supply. No feeder need be afraid of feeding generously of this product at first for the poorer grade of hay or straw will be better relished during the snappy days of January and February. Silage would be good at this season, but roots are not so easily preserved and should therefore be used first. The longer the roots last the better it will be, but there is sure to be a few days or a week or two in the spring when the cattle are bawling for the grass and the roots are gone. There is nothing better in such a time than a few feet of silage. Again the stock is probably laying on flesh, or if immediately after going into the stable, they will be at a stand-still. In either case a fair amount of the food ingredients should be protein for the muscular tissue must be built up and the body strengthened in preparation for the laying on of fat. The bones, the body cavity and the fibers of the muscles themselves receive the fat, and store it up and the choicest carcass is one with good muscling or, in other words, nice even distribution of fat throughout the fibers of the muscles. To make a firm, desirable carcass it is necessary then to have a development of flesh rather than fat as a foundation and for this some protein is required.

One investigator and authority on feeding cattle claims that one pound of protein to six pounds of carbohydrates and fats is not out of the way for a thin steer being brought to his feed. This would be supplied in 40 lbs. corn silage, 10 lbs. clover hay, 30 lbs. mangels, 4 lbs. bran, 3 lbs. oats and 1 lb. oil-cake. On close observation the reader will see that this amount is rather large at the beginning for in it are 8 lbs. of grain in addition to the roughage. It is better suited to a dairy cow and is only given here to show the combination of feeding stuffs that will give a nutritive ratio of one to six. This would be an expensive ration and somewhat out of season.—Let us try and adapt it to early-winter feeding.

In the beginning we would change the number of pounds of roots and silage fed. This would be done for reasons already mentioned—that of preserving silage for spring feeding. Some of the hay would be replaced by straw, the bran by chop and the oil-cake meal by cotton-seed meal. With roots and silage the bran seems unnecessary; cotton-seed meal is cheaper at present than oil-cake meal when we consider their composition. The former contains about 30 per cent. protein, and the latter about 37½ per cent. For these reasons a ration combined from 30 lbs. silage, 7 lbs. hay (clover), 6 lbs. oat straw, 40 lbs. roots, 3 lbs. oat and barley chop and 2 lbs. cotton-seed meal should be better suited to conditions this year. This ration would have a nutritive ratio of one part of protein to about six and one-half parts of carbohydrates and fats making it at the same time cheaper and almost as effective as the one previously set forth. It is claimed however, that an animal should not receive more than two pounds of cotton-seed meal at any time and in feeding this ration the animal should only receive a quarter of the amount of cotton-seed meal mentioned at the beginning, bringing him up to the total in a week's time or more. Greater objections are urged against this meal with the breeding herd than in the fed stall for it cannot influence the animal for slaughter in any way that will impair the herd. Withal, one should be careful but when fed in conjunction with the other feeding stuffs making up this ration there should be no danger. The reader should bear in mind that these are only arbitrary figures and the total amount fed must always depend upon the individual animal. When of the same size one will often consume more than another and there is such a variance in weight and size of feeding steers that it would be impossible to stipulate the proper quantity to mete out to them. However, the ration now under consideration would meet the requirement of a twelve to thirteen-hundred-pound steer.

For more mature cattle, the amount of protein may be decreased. Kellner suggests that for full-grown and mature fattening cattle the nutritive ratio should not contain less protein than one part to ten or twelve parts of carbohydrates and fats. With this latitude, the feeder cannot easily go wrong but Jordan mentions a possible decrease in the digestibility of the whole ration where less than one part of protein is mixed with eight or ten parts of carbohydrates and fats. By dropping the two pounds of cotton-seed meal out of this ration under consideration and feeding in its place three more pounds of chop two of oats and one of barley the ration will then contain one part of protein to nine parts of carbohydrates and fats which is in accordance with the teaching of investigators. If three pounds of corn be added instead of the extra three pounds of chop the effect would be to diminish slightly the percentage of protein but not enough to unfavorably alter the ration.

These few estimations go to show that the farmer usually has at hand and grown on the farm, feeding stuffs that will finish off the stock to good advantage. However, stock men often prefer to feed a little oil-cake meal at the last to add a gloss or finish to the animal. This may be done to good advantage, but prices are in favor of cotton-seed meal this year as a supply of protein.

## THE FARM.

### Idle Days.

By Peter McArthur.

There is a red squirrel in the wood-lot for whom I have a very neighborly and chummy feeling. Every time I drive past he scips about on the trunks of the trees or flips his tail and "Chir-r-r-rs" at me with what seems a great show of wrath. But it isn't wrath. He is just talking down to me—telling me that he is just as good as I am and perhaps a little better. The beechnuts are very plentiful and he has a granary somewhere in a dry hole in the top of a tree and a nest in which he can be as snug as a bug in a rug and he doesn't care whether school keeps or not. Stormy days will only mean holidays for him—days when he can lie in his cosy nest and feed high on beechnuts and dream of the summer days to come. No doubt he thinks that like other human beings I am worrying about work and crops and the high price of feed and that is why he chirrs at me in such a superior way. But that is where he is mistaken. This winter I am just as comfortable as he is and I can share in his feeling of contentment. Between the granary and the stacks there is enough for man and beast, even if the winter should last until May. So when the red squirrel chirrs I feel like chirring right back at him. He may be guided by instinct and I may be acting according to foresight, but the result is the same and I suspect that the emotions we feel on viewing the

success of our efforts is much the same. Philosophers like Bergson are beginning to pay a lot of attention to instincts and the part they play in guiding our affairs and I suspect that they are on the right track. I think I may be able to learn much from my friend the red squirrel. By obeying his instincts he is a whole lot more comfortable than a lot of human beings who try to provide for themselves by using their intelligence. With their more developed brains they buy watered stocks and real estate at the ends of the earth, so that they may be prepared for the proverbial rainy day and when it comes they sit down and shiver and worry because their profits have failed to materialize. The red squirrel and I with our stock of food that will last until next seed time and harvest come around have no such troubles. We chirr at one another and enjoy life and don't care a hoot about the banks or Big Interests or the financial tangles over which eminent men are worrying at the present time.

\*\*\*\*\*

Now that the apple campaign is over and I am a private citizen again I have time to look over some of the letters I did not have time to answer when the rush was on. Some of these are altogether too good to keep and I am going to cull a few bits for your enjoyment. Early in the campaign I sent out an article in which I told of a dream in which I was with a great company of men who were rolling apples down a hill to an army of children in the valley below. Our slogan was "Roll them to the kiddies." Strange to say, I got two letters that were almost identical in wording and entirely the same idea, replying to this slogan. Here is the one that came from Manitoba.

"Say, Peter, don't you roll an apple down that hill. You can't see all the way down, you know, and the kiddies wouldn't even get a core. Don't you know that the side of the hill is peopled all the way up with giants and ogres, and ugly dwarfs, and, Oh!, all sorts of things, and that each and every one would take a bite of each and every apple, and the last one would steal the cores. Don't you know that they people all work together, that each apple will be carefully passed from hand to hand till it is bitten all away, and why? Because these are all our monied interests, legitimate businesses, commercial enterprises, and we must not interfere. There is the railroad. If you do away with the packer at your end of the line and place the apples literally f. o. b. the railroad is one of the interests, and once the apples are in their hands they will see that the other interests get their share. For instance, if the apples are shipped to a dealer, it will come right through at carload rates. If not they are held up at Winnipeg, and re-shipped at local rates amounting to thirty-five cents per barrel extra. Another way they have of taking out a bite is by delay. Our local dealer received a carload of apples that were shipped to him on October 18th. A carload shipped to us on the same date has not arrived yet and it is frozen up now. The dealer who started selling his apples



With the British Army on the Continent.

Giving cigars to "Tommy's" as they pass through a town. Note the type of horses.

at a fair price has now advanced them fifty cents a barrel on the chance of ours not coming at all. And the other interests—their name is legion. The banks with their 12 per cent. interest, the machine man, the mortgagor, the real estate dealer, the balliff,—with the doctor and the undertaker trailing along in their wake. All must have a bite before we can take any apples home to the kiddies. So, Peter, don't roll any apples down the hill. Leave them for the old sow."

There is some food for thought in that letter that you can chew over while sitting by the fire eating apples.

\*\*\*\*\*

Here is an indignant letter from Edmonton:

"It seems perfectly absurd to have to pay such awful freight and express rates. Well, it is too much for words. We got a barrel of Georgian Bay No. 1 Spies for \$5.50 delivered to the cellar, and we are having more "Apple Delights" than George Foster ever dreamed of. I think he might use his energies in trying to arrange better railroad rates for the people. But no doubt it is easier to sit in your office and dictate recipes for "Apple Delights."

I wonder if they haven't heard out West yet that they should say Sir George Foster when speaking of the Minister of Trades and Commerce? This letter also contains some food for thought, for it suggests a certain amount of Western indignation that may yet bear fruit politically.

### On Karakul Sheep.

Editor "The Farmer's Advocate":

Several live-stock men and government experts have sent me copies of your issue of October 8th, 1914, which contained an article by Harlan D. Smith, who has variously ascribed his residence to Oregon and several other states, but really is in the employ of the Kansas Agricultural College, and L. M. Crawford of Topeka, Kansas as advertising agent for the latter.

There are several other points in the letter which I would like to elucidate. L. M. Crawford did not introduce Karakul sheep into America.—C. C. Young is the sole importer. He imported in 1908, in 1912, and again this year for the Dr. C. C. Young Karakul Sheep Company of P.E.I. Crawford bought no imported rams whatsoever. He purchased descendants of the first importation from Dr. Young in 1912. It will be noted later, that only one ram of the first importation consistently produced lambs of commercial value. The head of that ram is in this room where I write. He died on June 5th, 1914, and was never owned by Mr. Crawford.

These matters of history are of little comparative importance, if what Mr. Smith states in the second paragraph is true. He says that Mr. Crawford's lamb-skins were priced by New York furriers at from "\$3.00 to \$10.00 each." That would imply an average price of six or seven dollars per skin, and would be more profitable on a pelt basis than rearing lambs of commoner breeds. We challenge Mr. Smith to publish the New York furrier's signed statement. We ourselves, have published New York furrier's statements which set the prices at from \$5.00 to \$12.00 each, but first took the precaution to have the United States Government's mark on the skins. Some of Mr. Smith's statements may permissibly be doubted, when his article is illustrated with a cut of a lamb from our flock held by Joseph Simonson. Can it be that Mr. Smith is unable to show the photograph of a wavy, curled lamb from Mr. Crawford's flock?

It might be well to find out also from Professor Nabours, whether what I have stated above is true. Dr. Nabours is known to me personally as an honorable gentleman. He was in Europe and Asia last summer. Let him speak regarding what he saw, and what Dr. Young's position in the Karakul sheep industry is, in both America and Russia, even though Mr. Crawford and he are co-operating in this industry.

I bred the pick of the rams of the first and second importations last year to full-blood Karakul ewes, and to common breeds including Lincoln sheep from the same flock of which Mr. Smith speaks. I have spent much time studying the fur business, and particularly perfecting myself in judging the wholesale prices of Persian Lamb fur in such houses as that of Theodor Thorer of New York. I think that the average wholesale value of the skins of the Lincoln-karakul lambs was about \$7.00 each when sired by our rams. That would not justify the prices mentioned by Mr. Smith for half-bred karakul rams, namely \$300.00 as they would assuredly throw lambs worth only three or four dollars each, even though the lambs might be black. All Persian Lamb fur is dyed in any case. I have concluded, that half-karakul ram lambs as a whole are useless as commercial producers of Persian Lamb fur, and have slaughtered all whose skins were judged worth less than \$9.00. These will be tested before our company offers them for sale.

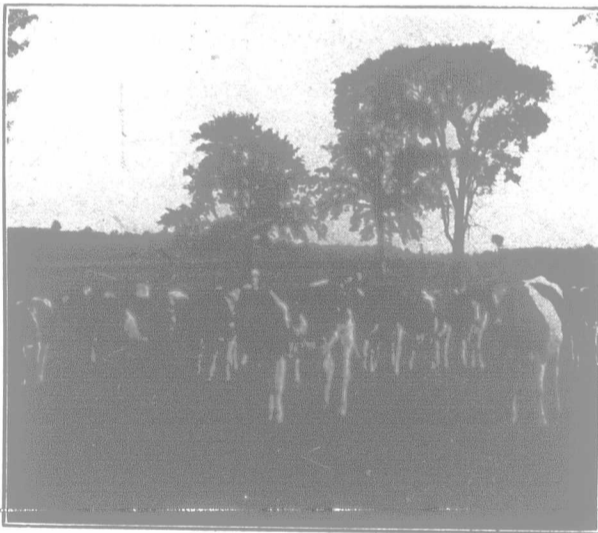
As for the hardness and mutton qualities, Mr.

Smith is right. He quotes letters in proof, the originals of which are in Dr. Young's files.

The cross of Karakul sheep with Lincolns gave the cheapest skin in the offspring of any of the breeds tested. Short or fine wool sheep like Shropshires give a skin almost worthless. As this was well proved in Texas we did not breed any fine wools. All pure-bred Karakuls do not give highly priced lambs. The quality which seems to be a necessity is the absence of fine wool in the fleeces of the parent. When two such coarse-wool parents are mated the result is a magnificent lamb whose skin is worth \$12.00 wholesale. We had several such from crosses of some of the rams of the second importation and coarse-wooled ewes of common breeds.

The importation of 1908, from which all of Mr. Crawford's stock was descended was a failure as a commercial venture. Only one ram—Teddy—gave reliable results, and Mr. Crawford never owned the original Teddy. It was only when Teddy happened to mate with a coarse-wooled ewe that high-priced fur was produced. It was this fact that led to the discovery of the requirements in the parents for costly fur production—namely coarse wool with freedom from fine wool. Dr. Young divided his flock in 1911 on the basis of wool quality, and sold half the flock to Mr. Crawford, and it is significant that Mr. Crawford and he have not since been associated in business. Neither has Mr. Crawford been able to import nor benefit from the importations. Mr. Crawford has been selling animals broadcast; Dr. C. C. Young Karakul Sheep Company have consistently refused to sell, and will sell only tested and guaranteed stock.

We believe, that practically speaking, it will require two crosses with Lincoln ewes to breed out the fine wool sufficiently to insure an average of \$10.00 a skin from the best rams. If this be so, companies purchasing half Karakul-Lincoln bucks from Mr. Crawford will not make their



Good Holsteins and Tall Elms Beautify Any Landscape.

flocks very profitable unless they can later obtain better rams to grade up the flock. We doubt the ability of the ordinary American to achieve the importation of Karakul sheep from Asia, so that the rams must be purchased in America,—but from whom?

In order to secure an ample supply of the best blood procurable on earth, our company at Charlottetown sent Dr. Young to Asia for the best herd that could be secured at any expense. The herd secured cost upwards of \$51,000.00. Through a series of fortunate circumstances, access was obtained to the remotest places where the Karakul sheep is reared, and one sheep was chosen from each district. They were brought out to civilization in July, and came to America on the last trip made by any Russian steamer out of the Baltic before the war. They are now in America, and soon from the crosses of these on sheep already in our possession, a pedigreed herd will originate, that will not depend on quack advertising for their sales, but from estimates of their fur values by reliable furriers.

The Karakul sheep in America can number two millions, before the American market will be supplied. That fact assures the sale of pedigreed stock for years to come at high prices. But the public should remember, that a sire should be able to do more than project a black color into the lamb skins,—he must be able to produce a tight, close, wavy curl covering the body even on the belly, legs, and face. Harlan D. Smith should not be allowed to injure a first-class live-stock industry in his advertising zeal.

P.E.I. J. WALTER JONES.

Remember the faithful rural mail carrier with a kindly Christmas greeting and word of thanks if you cannot reach his stocking. Few public officials render the country folk a more arduous service or one more deserving of appreciation.

### Still Assisting Tile Drainage.

Shortly after the outbreak of the European war a report gained some circulation that the Ontario Government would discontinue loans to farmers under the Tile Drainage Act, until after the close of the war. I am commissioned by the Minister of Agriculture, the Hon. Mr. Duff, to say that such is not the case and that loans under the Tile Drainage Act are being made as usual. As a wrong impression has been created by these erroneous reports it is thought best to explain the situation clearly. On Nov. 4th, the Hon. Mr. Duff wrote me as follows:—

"In reference to your enquiry of a few days ago in regard to loans on drainage, I beg to advise you that the Government will continue to grant loans on tile drainage applications. The rate of interest will be 5 per cent. as fixed by the legislation of last Session. This, as you will readily agree is necessary owing to the fact that the Government has to pay that rate for its loans at the present time. Some Councils evidently by mistake passed their By-laws at the old rate of 4 per cent., and these had to be altered before the loans were paid out. This was probably the foundation of the report that the Government had discontinued payments on tile drainage. I am pleased to be able to state that this is not the case. The Government, however, is not purchasing municipal drainage debentures at the present time."

It is also probable that some confusion arose from this last mentioned fact. On Sept. 30th, I wrote the Provincial Treasurer's Department asking "whether the war is likely to interfere with loans under the Tile Drainage Act." The answer was: "The Executive Council does not approve of the purchase of drainage debentures at the present time." I naturally thought this included the tile drainage loans about which I had written, and, consequently, informed some enquirers that tile drainage loans were discontinued. I can readily understand how the same confusion may have occurred with some township councils.

Whatever the origin it is gratifying to know that the reports were erroneous and that tile drainage loans are being made as usual.

WM. H. DAY, Professor of Physics,  
Ont. Agr. College, Guelph, Ont.

## THE DAIRY.

### Changing a Cheesery to a Creamery.

Editor "The Farmer's Advocate":

There is considerable uneasiness in some cheese factory districts. Where the condenser had cut into the cheesery patronage and almost wiped the cheese manufacturer out of existence, the condenser has closed down in at least one place and the cheese man is almost flooded with milk. There is no good reason for the "panicky feeling" among manufacturers of condensed milk, except the nervousness due to "war scares." In the meantime the cheese trade is having the greatest "boom" it has had in many years. One of the Eastern Ontario Cheese Boards reports an average price for the season of 1914, one-and-a-half cents above the average price for 1913 and about 1,000 boxes more cheese boarded for the present year as compared with last year. However, we may expect a reaction after the war is over and cheese factory patrons should prepare for it. In the meantime we may as well take full advantage of the "boom" while it is on. There is no use following the example of the old lady who said, "It always made her feel bad when she felt good, because she knew she would be worse after she was better."

One cause for the exceptionally high price paid for cheese and the relatively low price of butter is given in the letter of a member of the First Canadian Overseas Contingent now located on Salisbury Plains, England, who says: "We get plenty of good bread and cheese, but no butter." In consequence of this unusual condition of affairs regarding the relative demand for cheese and butter and its effect on the price, patrons and managers of cheeseries, would do well to consider carefully the advisability of changing from cheese to butter manufacture at the present time.

Not long ago we had a letter from the President of a Farmer's Co-Operative Cheese Company, saying they had a nice little cheese factory, were doing a nice business, but a number of the patrons wished to change from cheese to butter manufacture. He wished to know what the writer thought of the advisability of changing, what the change would cost, and any other points likely to be interesting to farmers who contemplated making such a change in their methods of dairying.

Our advice was not to make the change just at the present time, unless the farmers intended going into live-stock raising quite strongly, in which case skim-milk is almost a necessity, especially for calves and pigs. While it is undoubtedly true that the development of our live stock interests is very important, it is questionable whether or not farmers act wisely in making a

change  
It tak  
cremen  
Capital  
in the  
Take  
necessa  
alterat  
cheese  
penditu  
the ste  
tion an  
used al  
there i  
which  
This m  
horse p  
To  
per ye  
will al  
salt bu  
etc., an  
ence in  
quite  
making  
The  
appara  
account  
set mil  
Patron  
modern

Aged  
Aged  
Aged  
Three  
Three  
Three  
Heife  
Heife  
Heife  
Heife  
Heife  
Heife  
Heife

Aged  
Aged  
Three  
Heife

Aged  
Aged

Aged  
Aged  
Aged  
Aged

Aged  
Aged  
Aged  
Three  
Three  
Three  
Three  
Heife

Aged

Aged  
Aged  
Aged  
Three  
sto  
Three  
Three  
Three  
Heife  
Heife

Aged  
Aged  
Aged  
Three  
Three  
Three  
Three  
Heife  
Heife

change too suddenly in their methods of farming. It takes capital to change a cheesery into a creamery and it takes capital to raise live stock. Capital is the chief thing which our farmers lack in the development of their business.

Take the case in question. To purchase the necessary extra machinery and make necessary alterations in the factory building to change from cheese to butter manufacture means a capital expenditure of not less than \$1,000, assuming that the steam boiler of the cheesery is in good condition and that present vats, pails, etc., can be used after making the change. In all probability there is no engine in the cheese factory, or one which is not powerful enough to drive a churn. This means purchasing a steam engine of 8 or 10 horse power.

To hire \$1,000 capital involves at least \$60 per year for interest—possibly \$70 or \$80. There will also be considerable additional expense for salt butter-wrappers or packages, shipping boxes, etc., and considerable loss resulting from inexperience in the manufacture of butter, which is a quite distinct line of goods as compared with making cheese.

The further point of purchase of creaming apparatus by the farmers has to be taken into account. It is no longer considered advisable to set milk in pans or cans for the cream to rise. Patrons of creameries are expected to purchase a modern cream separator at an average cost of

about \$100 each. We are not "knocking" cream separators; because we consider the application of centrifugal and centripetal forces by means of a separator to the creaming, or what farmers call the "skimming" of milk, as one of the greatest inventions of the age on dairy farms, yet we cannot close our eyes to the fact, that in order to equip 100 patrons of a cheesery, with modern cream separators, means a capital expenditure, or its equivalent in notes, of about \$10,000. This is quite a large sum to be spent on one machine for the farms in one neighborhood, yet it is probably less than is spent for binders which are used on an average 100 acre farm in Ontario for not more than about ten days—the remainder of the year the binder is idle, taking up valuable space, and being quietly, yet nevertheless surely, eaten with rust and rot. The cream separator, on the other hand, is a machine which is used not only every day, but twice every day in the year, on well-conducted dairy farms, so that it is not like a machine which lies idle for about 355 days of each year. Farm machinery "rusts out" more often than it "wears out."

On the whole, then, it would seem that the present is not a good time to change from cheesery to creamery, but for the present to stick to the old reliable cheese manufactures. If the price of cheese sags back to its "before the war" level, then will be time enough to make a change. O. A. C. H. H. DEAN.

**How the Dairy Cattle are Judged.**

The talk of dual-purpose cattle has no effect on the dairy breeds. They are specialists destined for one purpose, and that is to produce milk and its products. With this aim in view the dairymen put their animals on test to demonstrate what they will do, and the public are permitted to watch their performance at the Winter Fair. Breeders are beginning to realize that they must not sacrifice type, conformation and all that goes with breed and dairy cattle generally for production. The heaviest producers this year were big, strong cows fit to go into any showing and meet competition, but, as in past years, the most typey cow did not win in every case, and we hope the aim of dairymen will be to have the show cow also a winner at the pail. This is a goal worth striving for and it should be always kept in sight.

The records this season were beyond what were attained last year, as the tabulated results will show. The winner over all, Rosie Posch, is a large, beautiful cow, and has to her credit a total of 297.48 points. This is an increase of 9.38 points over the winning record of 1913, and 44.9 over that of 1912. The test is conducted in three days, and the scale of points adhered to when making the awards is 25 points for each pound of butter-fat, 8 points for each pound of solids not fat (S. N. F.), and one point for each ten days the cow has been in milk, after the first thirty, with a limit of 10 points.

**The Dairy Test at Guelph Winter Fair.**

**RESUME OF THE TEST.**

	Lbs. milk.	Per cent. fat.	Per cent. s.n.f.	Days in milk.	Total points.
<b>AYRSHIRES.</b>					
Aged cow—1, Scottie's Victoria, John McKee, Norwich.....	171.8	4.5	9.12	22	240.30
Aged cow—2, Dew Drop of Menie, W. Stewart & Sons, Campbellford.....	155.9	4.0	9.1	36	199.06
Aged cow—3, Violet of Craigielea, H. C. Hamill, Box Grove.....	130.4	3.35	9.08	51	146.85
Three-year-old—1, Craigielea Peach, H. C. Hamill.....	158.9	3.8	9.27	4	196.16
Three-year-old—2, Airmount Boneva, John McKee.....	120.2	3.75	9.06	64	148.78
Three-year-old—3, Scottish Victoria, John McKee.....	129.2	3.5	9.07	28	148.22
Three-year-old—4, Craigielea Fluffyuffles, H. C. Hamill.....	92.7	4.0	9.32	59	121.53
Heifer—1, Hillhouse Blossom, F. H. Harris, Mount Elgin.....	108.7	4.2	9.32	72	148.74
Heifer—2, White Lady of Craigielea, H. C. Hamill.....	118.5	3.8	9.22	25	145.37
Heifer—3, Douglas Scottie's Sarah, John McKee.....	112.0	3.8	9.2	45	138.81
Heifer—4, Sarah Douglas, John McKee.....	107.0	3.85	9.26	55	135.23
Heifer—5, Craigielea Gem, H. C. Hamill.....	97.9	4.2	9.6	48	132.7
Heifer—6, Duchess of Hillcrest, F. H. Harris.....	100.2	3.9	9.7	59	129.91
Heifer—7, Queen Jessie of Brookside, John McKee.....	99.4	3.7	9.17	52	121.51
Heifer—8, Douglas Star's Sarah, John McKee.....	86.8	3.85	9.53	44	111.96
Heifer—9, Craigielea Snowflake, H. C. Hamill.....	82.2	3.8	9.3	52	103.23
<b>SHORTHORNS.</b>					
Aged cow—1, Gipsy, A. S. Stevenson, Atwood.....	143.7	3.9	9.15	31	179.64
Aged cow—2, Kentucky Rose, Wm. James Beaty, Guelph.....	108.5	3.4	9.1	121	130.94
Three-year-old—1, Butterfly Bloom, Wm. James Beaty.....	97.2	4.7	9.4	121	150.93
Heifer—1, Braeman Beauty, Wm. James Beaty.....	69.1	4.7	9.98	121	111.85
<b>HOLSTEINS.</b>					
Aged cow—1, Rosie Posch, W. H. Cherry, Hagersville.....	253.	3.6	9.1	11	297.48
Aged cow—2, Centre View Butter Gem, James G. Currie, Ingersoll.....	229.8	3.45	8.71	15	258.26
Aged cow—3, Madam B 3rds Alma 2nd, W.F. Walker, Port Perry.....	200.6	3.8	8.9	33	244.43
Aged cow—4, Netherland Schuiling, W. J. Biggar & Son, Jarvis.....	222.	3.05	8.8	32	228.33
Aged cow—5, Ladoga Idaline Veeman, A. E. Hulet, Norwich.....	179.9	3.8	9.6	10	222.7
Aged cow—6, Silver Calamity, Henry Welsh, Weston.....	214.6	3.05	8.5	43	220.2
Aged cow—7, Maysies Helen De Kol, J. K. Moore & Son, Peterboro.....	196.6	3.2	8.3	13	209.2
Aged cow—8, Flossie De Kol Clothilda, W. S. Shearer, Listowell.....	222.3	2.6	8.7	11	202.5
Aged cow—9, Madam B 3rds Prince De Kol, W. F. Walker.....	167.1	3.0	9.4	59	175.72
Aged cow—10, Queen Wilhelmina, W. H. Cherry.....	164.1	2.9	8.27	226	169.71
Three-year-old—1, Midnight Comet De Kol, J. G. Currie.....	212.7	4.0	8.9	24	269.64
Three-year-old—2, Highland Ladoga Mercena, J. G. Currie.....	222.9	3.6	9.06	11	263.99
Three-year-old—3, Highland Ladoga Mercena, J. G. Currie.....	190.9	3.6	8.9	30	225.67
Three-year-old—4, Madam Pauline Canary, A. E. Hulet.....	169.9	3.3	8.7	62	187.97
Three-year-old—5, Jantje Jewel Francy, Rettie Bros, Norwich.....	103.4	3.1	8.6	89	112.7
Heifer—1, Pontiac Atlas Francy, Rettie Bros.....	165.4	4.2	9.1	31	218.92
Heifer—2, Mutual Pauline, R. M. Holtby, Port Perry.....	153.8	3.05	9.2	45	161.28
<b>JERSEYS.</b>					
Aged cow—1, Brampton Bright Draconia, B. H. Bull & Son, Brampton.....	149.3	4.7	9.45	46	219.35
Aged cow—2, Sadie Mac of P. R. F., H. H. Gee, Hagersville.....	148.8	4.7	9.47	42	218.34
Aged cow—3, Clara That Is, Ira Nichols, Woodstock.....	98.3	5.7	9.5	92	174.43
Aged cow—4, Brampton Patricia, B. H. Bull & Son.....	99.4	5.3	9.4	116	168.47
Three-year-old—1, Springbank Butter Girl, D. A. Boyle, Woodstock.....	130.7	4.9	9.72	9	198.2
Three-year-old—2, Brampton Bright Kathleen, B. H. Bull & Son.....	121.0	4.6	9.9	11	174.97
Three-year-old—3, Brampton Bright Betty, B. H. Bull & Son.....	85.9	5.5	9.7	130	153.12
Three-year-old—4, Brampton Her Ladyship, B. H. Bull & Son.....	92.5	4.7	9.5	118	145.18
Heifer—1, Golden Lads Don Juan, Ira Nichols.....	90.4	5.4	9.7	42	149.55
Heifer—2, Brampton Stockwell Rad, B. H. Bull & Son.....	93.4	4.7	9.4	54	138.7
Heifer—3, Brampton Raleigh Cowship, B. H. Bull & Son.....	96.2	4.3	9.4	80	135.69
Heifer—4, Brampton Rena's Glow 4th, B. H. Bull & Son.....	93.1	4.5	9.3	16	130.93
Heifer—5, Golden Maid of Don, H. H. Gee.....	83.6	4.7	9.4	50	123.93
<b>GRADE.</b>					
Aged cow—1, Beauty, G. B. Ryan, Tillsonburg.....	227.3	3.8	8.9	31	277.05
Aged cow—2, Renis, Wm. J. Beaty, Guelph.....	111.3	4.5	9.0	59	158.17
Aged cow—3, Mona, J. K. Moore & Son.....	149.7	2.9	9.07	63	152.5
Three-year-old—1, Valentine, Wm. Shearer.....	196.4	3.1	9.02	20	205.38
Three-year-old—2, May, J. K. Moore & Son.....	175.2	3.0	8.6	32	176.8
Three-year-old—3, Peg, Ira Nichols.....	66.5	6.7	9.7	184	140.8
Three-year-old—4, Princess, Wm. J. Beaty.....	67.3	4.4	9.8	89	100.68
Heifer—1, Star, G. B. Ryan, Tillsonburg.....	123.3	3.4	8.9	30	137.72
Heifer—2, Judy, Wm. J. Beaty.....	86.0	4.8	9.22	120	136.00
Heifer—3, Polly, J. K. Moore & Son.....	108.5	3.05	9.06	76	116.82

**The Cheese and Creamery Meeting at Guelph.**

Editor "The Farmer's Advocate":  
The annual cheese and creamery meeting, held under the direction of the Dairymen's Association of Western Ontario, took place on Wednesday afternoon of Winter Fair Week at the Dairy Building, O. A. College. There was a large and enthusiastic attendance, the class-room being nearly filled for the whole afternoon. J. B. Muir, President, W. D. Association occupied the chair, while Frank Hems, Secretary, assisted in making the meeting lively and helpful. Messrs. Barr and Singleton, of the Dominion Dairy Commissioner's staff were present, as well as representative cheese and butter manufacturers from nearly all parts of Western Ontario. The Toronto and Hamilton creameries were represented by Messrs. MacFeters, Duncan, McLean, Reesor, Forster and Westphall. We mention these to show the growing interest of large cities in the manufacture of fine butter. The Eastern creamerymen had a representative in Mac Robertson, of the Belleville creamery, who was formerly a Western Ontario Creamery Instructor. Nearly all the present staff of Western Ontario Dairy Instructors were present, and did much by helpful suggestions to make the meeting educational. It was largely an "experience" meeting.

The results of the experimental work done during the past season in the Dairy Department of the College were presented by Miss Millar and Messrs. Brown and Bird. The manufacture of cottage and buttermilk cheese was recommended for those who could secure a good market; and for those who could not, the manufacture of poultry food from these dairy by-products was advised. The solids of buttermilk can be sold for 15 to 20 cents per 100 lbs. as chicken feed.

To prevent mould on composite cream samples it is advisable not to shake when adding fresh lots of cream, nor to allow the cream to touch the side of the bottle when adding samples. Considerable discussion took place as to where the reading on the Babcock test bottle should be made—at top, middle, or bottom of the meniscus or curve in the fat column. A show of hands indicated that the majority of those present practiced reading at the bottom of the meniscus. Further work was considered necessary with what are called "red readers" before their general use can be recommended for reading cream, Babcock sample tests. Milk "overripe," or with too much acid, at the time of delivery at the cheese factory caused a loss of 6.24 lbs. cheese per 1,000 lbs. milk, according to tests made at O. A. C. during the past season. These tests emphasize the need for cooling the milk properly on the farm for good results in cheese making.

The need of cooling cream for buttermaking, especially where the cream is pasteurized, was shown by the results got at the Guelph creamery, where they found that the loss of fat in the buttermilk from pasteurized cream increased with the acidity of the cream at the time of heating. Others reported that this loss could be overcome to a certain extent by cooling the cream and churning at a low temperature which delays the curdling so as to take 50 to 60 minutes to churn.

Grading cream was recommended by Mr. Robertson. The Toronto creamerymen reported that

they made a difference of 1 to 5 cents per pound fat more for good cream as compared with poorer grades. They found that this difference in price usually caused the patron to improve the quality of his cream or to sent the cream elsewhere. The standard percentage of fat required in first grade cream was placed at about 30. Some of the creamerymen thought the grades should be churned separately else there was little advantage in grading. Others pointed out that the more first-grade cream that could be got for each churning the higher would be the average quality of the whole lot, even though some poor cream lots might be included which tended to de-grade the quality of the butter.

In answer to the question, "How long can cream be kept on the farm in good conditions?" one man said, "a week if properly cooled and cared for." Another said he knew of a can of cream being kept 13 days then shipped to a creamery, which he considered altogether too long a time.

The question of writing patrons was discussed. The Chief Instructor said that there seemed to be a dislike among the creamerymen to have the Instructors go to the farms. One man said he expected to have 1,000 to 1,200 patrons next year, and extended an invitation to the Creamery Instructor to visit each one. It was pointed out that it would be impossible to visit all in one season, but if the creamerymen would make a list of those sending in poor cream, the Instructor would aim to call on such when making his creamery visit.

Lack of uniformity in salting butter and too

much salt were complained of by buyers. Mr. G. A. Putnam closed the meeting with words of encouragement. H. H. D.



The Late John Campbell.

## FARM BULLETIN.

### Demise of John Campbell.

The death of John Campbell, at his home, Fairview Farm, Woodville, Ontario, on December 8th, 1914, in his 65th year, removes a familiar and worthy figure from the ranks of Canadian breeders and exhibitors of pure-bred sheep. By his wisely-chosen importations and skill as a breeder and feeder he made the Fairview Shropshires widely and favorably known throughout the continent and his services were frequently called into requisition as a judge at the larger exhibitions. His counsels were sought in the conduct of various organizations designed to advance the interests of pure-bred live stock and at times he rendered effective services on Farmers' Institute and other platforms. He was also a devotee of the pure-bred Shorthorn of which he reared not a few of exceptional merit. His farm home was a model of comfort and appearance, and his out-buildings and lands were in keeping with the progressive ideas which he wisely and rigidly put into practice.

The next best thing to seeing the Winter Fair at Guelph, and the Toronto Junction Fat Stock Show is reading the reports of these great shows and lectures in "The Farmer's Advocate."

## Live Stock and Seed Situation Discussed at Guelph.

In connection with the Ontario Provincial Winter Fair a series of lectures is put on each year which no one in attendance can afford to miss, in fact, the management, recognizing the fact that these lectures are one of the most valuable branches of Ontario's great winter show have, during the past few years, so arranged their program that the judging in the ring and the lectures in the assembly room do not interfere, the one with the other. By this arrangement those in attendance are permitted to hear the lectures and gain the valuable knowledge disseminated there and at the same time miss nothing in the judging ring. It is now generally conceded that the two most educative features of the great fair are the actual placing of the animals in the ring and the discussion of farming and live-stock topics in the assembly room. It may be truthfully said that never before in the history of the exhibition was there a better program of lectures than was the case this year and those in attendance appreciated this fact and crowded the lecture room at nearly every session. Interest, of course, was always most manifest when live-stock subjects were being discussed by live-stock men who know whereof they speak, but while these lectures brought out the largest crowd, it was generally conceded that those on seed growing and general farming, particularly those meetings in connection with the Canadian Seed Growers' Association, were never better attended than was the case last week.

### DAIRY CATTLE.

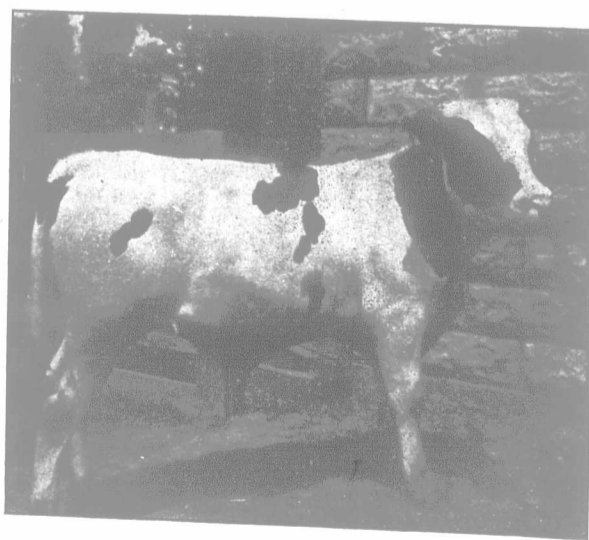
On Monday, Dec. 7th, dairy cattle was the subject and a number of excellent addresses were given. Winners of each breed in the Dairy Test were led before the audience and advocates of each breed explained the character and conformation that is desired or is being striven for. B. A. Bull, of Brampton, using one of his own cows as a subject for discussion, explained how the Jerseys have been kept pure for over three hundred years and during that time breeders have not lost sight of type and character in their race after records. Consequently the Jersey is a show-ring animal as well as an economic producer. America excels the Island of Jersey in long-time records but in the home of the Jersey, particular emphasis is laid on economic production and in that direction America has been surpassed. The dairy type is the type sought after in all dairy breeds and it is only in minor points that any difference exists. Jersey breeders want constitution and in Mr. Bull's opinion this is had more by depth of chest than by thickness. Of course they should not fall in back of the shoulder but it is in depth from top to bottom that capacity is found. In each change of the score card more importance is placed on the udder and the points have doubled for that part of the animal in the last few years. Quality of udder and its attachments are of paramount importance and are receiving more attention than formerly.

R. S. Stevenson, of Ancaster, claimed greater antiquity for the Holstein breed than for any other dairy cattle yet with all their years Mr. Stevenson declared that Holstein men should get together and decide on a type and conformation instead of going after such phenomenal records. The speaker said the general run of Holsteins would do with less daylight under them and they

might further be improved by breeding out some of the roughness of hind quarters that is sometimes seen. The sloping rump and pendulous udder which sometimes go together, especially in age, are objectionable. The demand is for clean milk and dairymen know what kind of an udder is most easily kept clean. These remarks were not spoken in a tone that would depreciate the breed in the least. They were simply thrown out that Holstein breeders might improve an already popular and useful animal.

W. W. Ballantyne, Stratford, discussed Ayrshires and called attention to the biblical references to the spotted cattle, claiming for them great antiquity, but Canadian breeders have so long depended on our National Records that any other work is given a subsidiary place, especially concerning live stock. In one sense the dairy breeds are all the same but Ayrshires have been bred to carry a proper udder and over a third of the total points of the score card are allotted to the milk vessels. Every indication of ruggedness must be present in this breed and the speaker favored a large cow with capacity and constitution.

Prof. G. E. Day, of Guelph, did not champion



Willowbank Correct Currency 20822.

A sample of the herd-headers to be sold at "Willowbanks" on Dec. 30th, property of C. V. Robbins. (See advertisement this issue.)

the milking Shorthorn in every sense of the word, but said there were a great number of farmers in Ontario that wanted a dual-purpose cow and they have a right to breed them if they wish. The position of the specialized dairymen was upheld and the speaker did not advise anyone to change their breed if they were doing well. The milking Shorthorn in most cases traces back to the Bates blood and is not so extreme as the Scotch type of Shorthorns yet they will mother themselves at the pail. That is the animal many farmers want and the type of cow used in the future must be proved that it could be attained. It is a matter of degree in Shorthorn type with good blood behind them noted for milk. With

this they must have the milk vessels that make it possible to perform and breeders must select wisely to blend the two proclivities to produce milk and beef.

### GROWING FIELD ROOT SEEDS.

The seed meeting presided over by J. B. Reynolds, of the Ontario Agricultural College, was well attended and those present were well repaid for coming. As was the case at the Ontario Vegetable Growers' Association meeting in Toronto, the most prominent topic for discussion was the growing of field root and vegetable seed in Ontario. Prof. C. A. Zavitz, of the Ontario Agricultural College, discussed the growing of field root seed and first of all brought the importance of this particular phase of Ontario's agriculture before the meeting by the use of the following table.

Crops.	Acres in Ontario in 1914.	Average Pounds of Seed Sown per acre.	Number of Pounds of Seed Required
Mangels .....	50,663	6	303,978
Sugar Beets .....	18,534	12	222,408
Turnips .....	95,371	3	286,113
Carrots .....	2,448	3.5	8,568

From this table it is seen that nearly a million pounds of field root seed is required in Ontario annually. During the past few years mangel seed has come largely from France, with smaller quantities from England and Germany. Ontario has got her sugar beet seed from Germany and United States and a great deal of turnip seed has been imported from England, the amount of home-grown seed being particularly small.

Experiments have been carried on at the O.A.C. with mangels, turnips and carrots for seed production, paying particular attention to storing of the mother roots, planting, yield of seed, improvement of variety through selection, the germination of home-grown seed, and the yield per acre from home-grown seed as compared with imported seed.

After seven years of work in storing the seed it has been found that there was the least amount of decay from mangels stored loosely in the cellar and from carrots and Swede turnips stored in sand. Mangels and carrots gave the greatest percentage of sprout in the spring when stored in the pits, and turnips when stored in sand. Roots in all cases were of medium size. In some countries where the climate is suitable roots for the growing of seeds are planted in the fall. For autumn planting at Guelph the land is slightly trenched with the plow early in the fall and roots are planted three feet apart in the rows, rows being placed about five feet apart. These are covered with loose straw and two furrows are turned with the plow on each side of each row. About the middle of December, after the ground has become slightly frozen, straw manure to the depth of three or four inches is placed over the ridges. In the spring when danger of severe frost is over the manure is raked from the roots, this

is usually done early in May. From experience at Guelph a larger yield of seed has been produced in this way than where the roots were planted in the spring.

For commercial purposes the plants growing seed are usually cut when about two-thirds of the seed has turned brown. These are placed in small stooks and threshed when dry. The seed may be threshed with an ordinary grain thresher but in a small way it is easier to strip it from the plant early in December and later in the month secure the seed that matures at a later date. It is important to secure the seed before it is damaged by frost as this may injure germination. As a result of six years' work at the College an average of 6.6 ounces per plant for mangel seed was obtained from a number of the best plants each year. An average yield of carrot seed per plant is a little less than two ounces and from Swede turnips only about four-fifths of an ounce per plant.

In order to get at the germination of Canadian-grown mangel seed thirteen separate tests were made in six years, and Ontario mangel seed gave a particularly high percentage of germination in 1909, 1911 and 1913 and a comparatively low percentage in 1912, and 1914. This is in comparison with imported seed. In the average of six years the Yellow Levianthan seed produced at the College gave a higher percentage than seed of the same variety from any other source. Ontario-grown mangel seed has made a comparatively high record in germination, and has by actual test surpassed the imported seed in yield of roots per acre in average tests in five years in which the number of plants used was comparatively equal.

C. C. Rebsch, of Port Rowan, continued the discussion on this subject.

**GROWING OF VEGETABLE SEED.**

The growing of vegetable seed was the subject discussed by S. Johnson, of the Department of agriculture, Toronto. His topic was very thoroughly threshed out at the Ontario Vegetable Growers' Association Convention early in November, a report of which has already appeared in these columns. Mr. Johnson made the statement that not five per cent. of next season's crop or any other crop of vegetables grown by market gardeners or vegetable growers of this province will be grown from seed produced by themselves, first, because gardeners and vegetable growers have not the time to spend in carrying on the necessary operations of seed growing. The cost of labor is high and care must be taken in selecting, staking, cutting, drying and threshing. He did not think that a vegetable grower could afford to pay a competent man to look after the seed-growing end of his business. Threshing and cleaning machinery are all expensive, and when some vegetable growers cannot find capital to adopt improved methods of growing they certainly cannot be expected to purchase these implements. Besides this, the average vegetable grower works on a small farm of about ten acres and has not the room to give sufficient distance between varieties to prevent cross fertilization. Therefore, we must depend on some one who will grow vegetable seeds on a large scale and make a business of producing them as a specialty leaving the production of vegetables to those already engaged therein. The following list of varieties is recommended by Mr. Johnson as standard among the vegetable growers around Toronto.

- Beet—Early Flat Egyptian, late Detroit Dark Red Eclipse.
- Cabbage—Early Round Copenhagen Market Early pointed Wakefield, late Short Stem, Ball Head.
- Carrots—Chantenay.
- Celery—Early Paris Golden, White Plume Winter, Winter Queen.
- Corn—Golden Bantam, White Corn.
- Lettuce—Grand Rapids, Big Boston.
- Melons—Rockyford Type, Paul Rose, Petosky.
- Onions—Southport Globe, Yellow Danvers Globe, Yellow Red Wethersfield Red.
- Peas—Early Gradus, American Wonder late Stratagem.
- Tomatoes—Red Earliana, Chalks Jewel, Red Rock; for factory use, Stone Ignatum.

A. McMeans of Wheatley, continued the discussion on the growing of vegetable seed.

**THE CANADIAN SEED GROWERS' CONVENTION.**

Tuesday morning was given over to the annual convention of the members of the Canadian Seed Growers' Association resident in Ontario. At a meeting the previous day a committee had been appointed to formulate plans for the establishment of what finally came into being as the Western Ontario Seed Growers' Association, an association formed to aid in the production and dissemination of high-class seeds with members, bona fide seed-producers, who will put out seed guaranteed as to quality. The officers of the new association are G. H. Clark, Seed Commissioner, Ottawa; Prof. C. A. Zavitz, O. A. C., Guelph; A. MacKinney; Fred Foynston; and R. W. Wade, Sec.-Treas. Guelph Winter Fair. The new association is to commence business at once.

**THE SEED CENTER.**

Will Barrie, of Galt, Ont., Secretary of the Galt Dawson's Golden Chaff Seed Wheat Centre,

outlined before the meeting, the work of the seed centre, and advocated threshing from the field or the use of small threshers operated by six or eight horse power gasoline engines or electric power, as the case may be, in order to overcome the all too prevalent means of distributing foul weed seeds by being carried from farm to farm by the large threshing outfits commonly used in Ontario. He made the statement that from selected seed on their own farm they have been able to get from ten to twelve bushels per acre, and forty cents per bushel more in price for wheat than was the case with fairly good seed but not specially selected.

Great interest was taken in the address of Ross Martindale, of York, Ont., Secretary of the Grand River Alfalfa Seed Centre, which was organized at the former place on July 1st, 1913. Haldimand County with its heavy clay loam soil, and rolling topography is especially well adapted to growing alfalfa. The crop has been produced on these farms for the past fifty or sixty years, and there is every reason to believe that the first seed sown was of the variegated variety. This, next to Grimm's alfalfa, has proved most hardy in Ontario. The object of the Seed Centre is to encourage the production of hardier strains of alfalfa, and by means of co-operation to market the same to best advantage. Accordingly, a bushel of Grimm's seed was procured this year, and six acres have been sown from this which promise well. Only twelve members are taken into the circle, the speaker believing that a small number is preferable, because there is less expense connected with the work, it is convenient and easy to control, and there is no difficulty in members getting to the meeting. Last year 63 bushels and 33 pounds of seed was sold, nearly all testing number one. The average price for the seed was \$20.00 per bushel, and the

gin with plenty of capital, and always have money on hand to run a cash business.

**THE CORN SITUATION.**

W. J. W. Lennox in a brief address outlined the seed corn situation in Ontario. The main efforts of the Department at the present time are put forth to encourage the sale of corn on the ear. Too much seed corn is sold, in Ontario, shelled in bulk, and while a great deal of it is of high quality considerable is of only questionable value and should not be relied upon. He also believed that we had too many varieties of corn in Ontario, and recommended in Dents, Wisconsin No. 7, White Cap, Golden Glow, and Bailey, and in Flint, Longfellow, Compton's Early and Salzer's North Dakota.

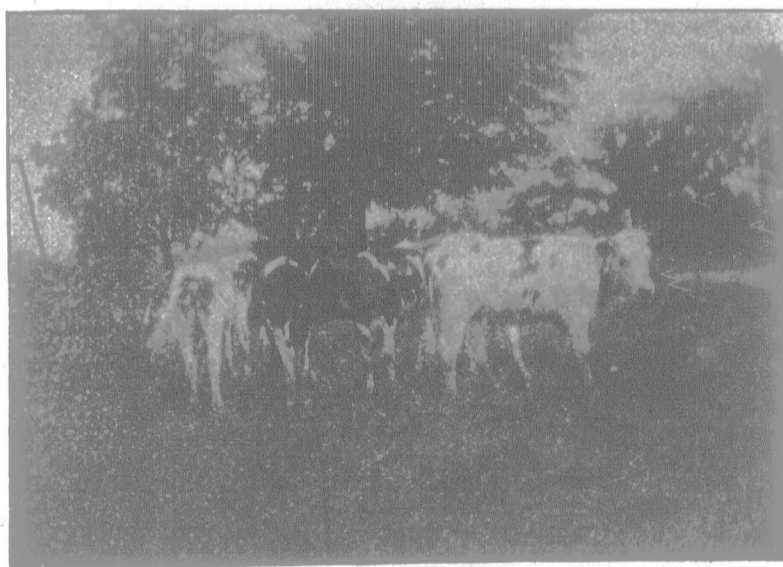
A number of papers and addresses were given by District Representatives of the Ontario Department of Agriculture, outlining some of the observations they had made during the past year when inspecting field crops in their respective localities. P. S. D. Harding, of Perth, Ont., I. B. Whale, of London, Ont., G. R. Green, of Woodstock, Ont., and C. Main, of Frontenac, each had some good work to report. The outstanding feature of these observations was that farmers are beginning to become interested in the work the District Representatives are doing towards better seeds, and see the value of seed selection and greater care in caring for their seed to keep it pure and free from weed contamination. Each man showed new problems developing, which make it necessary to continue experimenting year after year in order to find out just what each particular locality requires in the way of variety. It was in all a very interesting meeting.

**THE LIVE-STOCK SITUATION.**

"Live-stock Conditions East and West" was the big subject assigned to four well-known live-stock men on Wednesday afternoon.

Prof. M. Cumming, Truro, N. S., not being able to be present, sent a paper which outlined the needs and prospects of the industry in Nova Scotia. He pointed out that the great difficulty to be met by live-stock men in his province was in selecting and transporting animals from Ontario to that province. It costs a man in Nova Scotia from \$50.00 to \$75.00 to come to Ontario and buy an animal, consequently, there is a need that men get together and buy in large numbers to keep down expenses. Besides this, the transportation charges on single animals are almost prohibitive, and it is very difficult indeed to send a single animal by freight. Live-stock breeders in Ontario must aid those in Nova Scotia to solve this problem, and Prof. Cumming believed that the best solution would come by establishing a central live-stock purchasing and distributing agency in Ontario. The agency should be a part of the United Ontario live-stock associations, and the manager appointed by these or by the government. This manager must be a good judge of live stock and be untrammelled in his work. Live stock breeding has been making rapid advancement in the East. The breeders down there know more about good live stock than they did ten years ago. They demand pedigree as well as individuality. High records have been made by some of the cattle in that province. The dumping of poor stock from Ontario into Nova Scotia and the eastern provinces will certainly injure the trade, and Prof. Cumming looks to Ontario to organize the central agency mentioned and aid Nova Scotia breeders to work out the scheme.

H. S. Arkell, Assistant Dominion Live Stock Commissioner, by the aid of charts and maps took the audience for a trip over the Prairie Provinces, discussing the particular adaptations of each of the many well-known localities to the different classes of live-stock husbandry. Up from Winnipeg and away west to the Rockies he went; then north through the northern-most part of settled Alberta; then east and back to Winnipeg. He showed how in certain parts agriculture is becoming permanent, and a steady growth in mixed farming and live-stock husbandry is being effected. Manitoba is an instance of this. There has been little change in the numbers of live stock in Manitoba during the past few years, but in the whole of the West there has been a considerable increase, and, whereas a few years ago large numbers were being imported for consumption, this year there were exported 31,455 cattle and over one million hogs, Manitoba is settling down to producing live stock, particularly cattle and horses. The West is endeavoring to supply their own needs, but there will for years



**A Group of Yearling Helpers.**

To be sold at "Willowbanks" December 30th, property of C. V. Robbins. (See advertisement, this issue.)

total receipts of the centre \$1,291.70. The total expenditure for the year's business was only \$47.35. One hundred and seventy letters and cards all told were received, most of them being enquiries for alfalfa seed. The result has been that the members are taking every precaution to keep their fields clean, and are exercising greater care in harvesting, threshing and cleaning.

**BUYING AND SELLING CO-OPERATIVELY.**

F. C. Hart, head of the Co-operation and Markets Branch of the Ontario Department of Agriculture, spoke briefly on the subject of marketing seed. In his opinion Seed Centres should have attached to them proper machinery for selling their seeds co-operatively, and when the proper time comes he believes that all registered seed should be handled by one concern, probably a provincial organization; but, we must not expect too much of co-operation, and, as in every other successful business enterprise, small beginnings lead to greater things while large starts generally result in failures. Adequate organization must come through the local Seed Centres first. The business must be learned by experience, and the principle of selling co-operatively is essential, and members of the local seed centres must realize this fact. By starting in a small way with few members it is possible to get men that will work together, and this is the only road to success. Above all things a good man must be had as a manager, and it is not always that the best producer is the best manager. Again the price asked has an effect on the selling. It is possible to put the price so high that sales will be curtailed thereby. As pointed out by Mr. Martindale, the aim should be to produce the seed at a profit to the grower, and sell it at a price which will induce and pay the purchaser to buy. Mr. Hart was hopeful that large things would come from the Seed Centres properly organized. Be-

to come be a strong demand for breeding stock, particularly from that section lying to the north and west in the Prairie Provinces. The most alarming situation has developed in the hog trade; Alberta produced this year practically 1,000,000 hogs, and these were rushed to market showing the price down below profitable production, but, as pointed out in the Hon. Duncan Marshall's address which followed, the price is going up and likely to advance higher. It is significant to note that whereas a few years ago meat moved from east to west now the reverse is the case and the meat is moving from west to east, one million pounds coming east during the last two months. The West had during the past year a great producing boom in breeding stock, and grain growing is giving place to mixed farming. In the speaker's opinion agriculture does not under present conditions obtain the requisite results for the work being done. There is a lack of that organization which is so prominent in other lines of endeavor. Energies must be combined to secure desired ends. There is a need of a body representing the selling end of the business. In other words the producer must in some measure control the marketing, else we cannot overcome the over-stocking of the market at certain times.

In a rousing address the Hon. Duncan Marshall, Minister of Agriculture for Alberta, warmed his audience up to the need of greater effort and a wider education for farmers and farmers' sons in their own business. In his own province in 1901 there were 92,000 horses, while in 1913 there were 580,000. In 1901 there were 323,000 cattle in 1913 1,000,800, while hogs had grown from practically nothing to over one million. He believed that there was such a thing as too high prices for live stock, citing the case of the farmer starting farming in the West and who a short time ago was obliged to pay from \$600 to \$700 for a team, which he considered too much, and he believed it would be better business all the way round when horses sold at a lower figure. The very foundation of a lasting agriculture, he stated, was live-stock breeding, and he believed that the live-stock man was himself the most important consideration in the development of the business. We must train the boys and give them the agricultural education which they need. In no other business do the men engaged therein lack the training to such an extent as do those which enter upon a life work in the calling of agriculture. We must have good judges and lovers of live stock, and we must take the education to them in the form of colleges and schools at their door wherein they can get the necessary training at small cost and in as short a time as possible. Too many of our farms have scrub stock, and too few are laying stress on the pure-bred variety. The average boy on the land, according to Mr. Marshall, does not know anything about his business, and to prove that education can teach him something about it he cited the case where 88 cows, which were bought for the Alberta Government in Ontario last year, made in one month, after a long hard trip to the West, 1,100 pounds of milk each, and one of which cost \$125 made 17,258 pounds in 12 months. These were selected by a man trained at the Ontario Agricultural College, Guelph, and speaks well for the training of that institution. It is this education which we must take to the boy on the farm. In conclusion he believed that the world's market offered to-day the best inducement ever to the intelligent live-stock breeder.

Prof. Barton, of Macdonald College, St. Anne de Bellevue, Que., outlined the live-stock situation in his province and by a comparison with Ontario, and of Canada with the United States vividly depicted to his hearers where this country and his province stand in the live-stock business. His was one of the best addresses of the entire meeting. Comparison with other countries shows that Canada does not hold the position in live stock which she should. On the farm we possess roughly in fractional form about 1-63 of the world's cattle, 1-47 of the world's horses, 1-28 of the sheep and 1-58 of the swine, while United States possesses a little over 1/2 of the world's cattle, about 1/4 of the horses, 1-12 of the sheep, and almost 1/2 of the swine. Even per capita the advantage is still with the United States, and yet we have a great live-stock country in Canada. Since 1900 we have made slight progress in all classes of stock with the exception of sheep but the numbers show no great increase, while a favorable situation is shown by the substantial increase in value. In total value of farm animals in Canada, Ontario stands first, Quebec fourth, but the value in Quebec has almost doubled since 1901, and an increase is shown in every class. During the last four or five years, however, swine have not been gaining and milk cows have lost. Quebec had more sheep forty years ago than she has to-day. This is true of the entire Dominion, but in 1909 the tide turned in Quebec and sheep are gaining in favor. During the last decade the value of live stock per farm in Quebec has increased from \$387 to \$600, or fifty-five per cent. per farm of 97.63 acres.

Numbers are increasing also. Quebec carries less stock per farm, but is gaining on Ontario in annual output. In 1913 she had 19.1 animals per holding, 2.3 horses, 4.7 milk cows, 4.3 other cattle, 3.7 sheep and 4.1 swine, an increase in ten years in horses, cattle and hogs, but a decrease in milk cows and swine per farm. Ontario farms average 26 head, and show an increase in horses, milk cows and swine, but a decrease in other cattle and sheep.

Quebec is also making a rapid increase in live stock sold, jumping about 325% in the last decade, and last year the output was valued at \$20,406,385. In ten years Quebec's dairy products increased from \$20,207,862 to \$31,663,220. The number of dairy cows increased in the Dominion in the past ten years by only 7%, but the production of these cows has increased 43%. Winter dairying is advancing in Quebec because of the increase of the milk and cream trade, much of which is going to the United States as well as to the big city of Montreal. Quebec far exceeds Ontario in the output of factory butter; the export of cheese is decreasing materially.

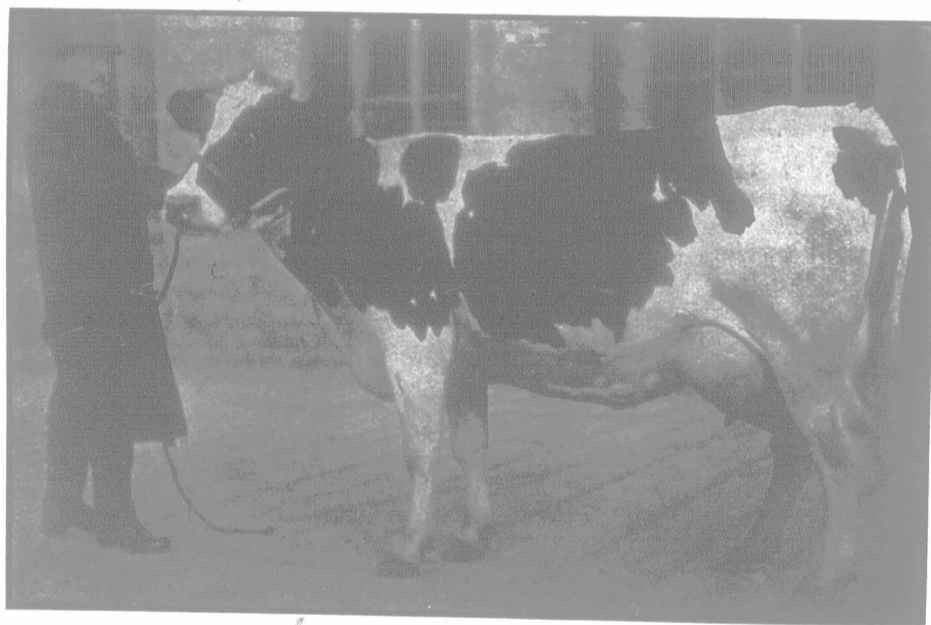
Every year sees improvements in Quebec where the farmers are more and more dependent upon animals and animal products as the main source of return, and there is a noticeable improvement in the quality of stock going to the stock yards. Big sales of pure-bred stock are made in Quebec, and with "Farmers' Clubs," of which there are 62,000 members, receiving government grants and with government agencies and live breeders progress is being made. Quebec is a ready market and a fine field for Ontario live-stock breeders, but must not be considered as a dumping ground for the inferior stock from this province. Quebec in pure-bred stock is not a leader, neither is she a tail ender. Less than 1% of her horses are pure-bred, about 1.25% of her cattle are pure-bred, and 1.04% of her hogs are pure. Quebec is in a good position to forge ahead. She has a

men should not, in the time of slack demand, neglect their horses.

W. F. Stephen, Huntingdon, Que., gave a very interesting address on the outlook for the dairy farmer in Eastern Canada. The dairy situation is becoming more complex, and the dairyman is now surrounded by regulations and exactions imposed on him by municipal, city and provincial bodies, these causing increased expenditures. There is a growing demand for good dairy products, pure, wholesome and of choice quality, and the farmer who produces these will get a fair recompense for the labor involved. Quality counts as never before. The business is on a good footing and there is no cause for alarm, and there is no indication that dairy products will become lower in price, but with an improvement in quality they may go higher. Mr. Stephen believed that there is a good future before the breeder of high-grade dairy cattle. With an increase in demand for high-class milk in our cities so will the demand for cows of large production increase. Testing has proven the wisdom of keeping cows of large capacity, with the result that thousands of poor producers have gone to the canneries. Pure-bred sires from record families are necessary. There are still too many scrub bulls. The dairy business has received a temporary check owing to the financial depression caused by the war, but no uneasiness should be felt as a result of this, because there is a brighter future than ever before the dairy farmer. There is no surplus of cows or young heifers at present. In fact, there is a shortage in the Western Provinces both in high-grade cattle and in pure-breds, and when money becomes easier there will be a loud call from the West for dairy cattle, and profitable prices will result. Farmers now demand foundation stock from ancestry with a record. Production is the key-note of the situation. As a result of the conditions in Europe a market for good pure-bred dairy stock may be

opened in Europe. Mr. Stephen concluded that "optimism and patriotism should go hand in hand in stimulating the dairy farmers of Canada to do their best at this most critical time in the history of the British nation."

John Gardhouse, of Weston, Ont., said in a brief address that in all his experience as a breeder of beef cattle that the future never was brighter. Canadians have got to feed the people of Europe, and the character of the war is sure to bring about circumstances that will be favorable to the stockmen in this country. He urged that every farmer should improve and increase his live stock, while the breeder of pure-bred cattle should not



Rosie Posch.

Champion producing cow at the Guelph Winter Fair, 1914. Her record can be learned from the report of the test.

large territory; her rural population is increasing, and the sentiment of the average farmer is keener towards live-stock improvement at present than has been the case for some time past. The numbers and value of live stock are increasing, and there is room for special effort in dairy cattle and sheep. The field in sheep is practically unlimited. The home market in Quebec ranks with the best, situated near Montreal and the larger eastern cities.

#### OPPORTUNITIES FOR ONTARIO LIVE STOCK.

On Thursday, Dec. 10th, stockmen gathered in the lecture room for a session on the opportunities for Ontario live stock. Robt. Miller, Stouffville, Ont., discussed the horse-breeding outlook. The trade has been dull owing to the slowing up of other lines of industry in the country. For instance, little building is being done, and horses usually engaged in this work are being thrown upon the market. This is also true of railway construction and of expansion in farming in Western Canada, where gasoline and steam power have been used to replace the horse. Also very little work is being done in the woods this year. Mr. Miller drew attention to the fact that large numbers of horses have been bought in Canada for the war, but that recently the British Government has been buying in the United States where they can get a more uniform class of horses at from \$15 to \$40 less per head than they can in this country; besides they are available in larger numbers. Mr. Miller predicted that horses would soon be in good demand in Canada, that all the activities now suffering because of the war must become active again in the near future, and that the man that has good horses will always be able to find customers. He urged that horse-

abate his efforts.

R. H. Harding, of Thorndale, commented upon the decrease of sheep in Ontario. We now have less than 1,000,000 sheep, and have suffered a decrease of 25,000 in Ontario during the last year. During the last four years sheep have decreased 135,000 head. Prices are not responsible for this condition, for they are now nearly double what they were thirteen years ago. Mr. Harding recommended that every farmer, where conditions were at all favorable, should keep a small flock of sheep upon his farm, and that he and all other sheep breeders should raise their standard and put a more finished article upon the market. The shearing for each sheep should also be increased. The average in Ontario is approximately three and three-quarter pounds per sheep, whereas it might as well be made five or six pounds per sheep. This is why Ontario is now importing wool, a condition which seems absurd for a province so well suited to sheep-husbandry. In order to raise the quality of the sheep and wool, breeders should look to the selection of their sires and choose only those which are grown and matured. In this way the crop of lambs will be made stronger, and the annual shearing will be very much increased.

The following Ministerial order went into effect on the 14th inst. "During the period of six months from the fourteenth day of December the importation or introduction into Canada of any hay, straw, fodder, feed stuffs, or litter accompanying horses from Continental Europe is prohibited."

At  
abroad  
exhibi  
or ha  
-disea  
Fair.  
by the  
they d  
are re  
now c  
prise  
of Ont  
to the  
their  
result  
seeds,  
finds i  
hibit  
animal  
specim  
admiri  
spread  
couple  
ment i  
and h  
Necess  
regardi  
must v  
a wort  
grants  
gree at  
and im  
It is  
Provin  
breaker  
were n  
years  
cattle  
animal  
ment o  
former  
sual ob  
last ye  
and we  
The  
were w  
ment t  
tecurin  
ed with  
and un

CLY  
breed e  
often t  
feet an  
is foun  
must s  
dales  
with m  
breeds.  
good C  
which  
horse s  
that s  
strong,  
any s  
vastly  
little  
poor h  
try and  
ing mo

Ther  
ways r  
The ap  
many  
fan, la  
the n  
Pride,  
class  
good C  
to look  
were be  
was on  
Winter  
Nova S  
type, c  
placing  
seven o  
him a  
points  
ning th  
that Pa  
standing  
but Ba  
coupled  
though  
Baron I  
the wh  
honors  
type w  
stance,  
strength  
quality,  
sire, s  
feather  
with 1/2  
of hoat

## A Year of Plenty and Quality at the Guelph Winter Fair

At a time of disturbances at home and abroad, when business is not so good, when other exhibitions have not ventured to stage their shows or have been withheld on account of contagious diseases it is pleasing to report the Guelph Winter Fair. This has long been a show of the farmers, by the farmers and for the farmers and although they do not always make phenomenal strides they are reliable and the success of the Winter Fair now closed manifests the security of any enterprise favored with the good will and patronage of Ontario's rural population. They look forward to the event of meeting annually with others of their own occupation and viewing together the result of a year's efforts in the production of seeds, live stock and all animal kind. The feeder finds it a pleasant and a profitable place to exhibit his handiwork in the form of a finished animal while horsemen can display their fine specimens of their chosen kind of stock, before an admiring and appreciative audience. This widespread patriotism to the Provincial Winter Fair coupled with an efficient and pains-taking management is sure to anchor the event in the minds and hearts of Ontario's farmers and exhibitors. Necessity long ago did away with any reasoning regarding the accommodation for the Fair. We must wait for better times when we are sure such a worthy institution will be favored with liberal grants and enlarged until it is, to a certain degree at least, commensurate with its requirements and importance.

It is vastly more pleasing to report that the Provincial Fair was again this year a record-breaker in many respects. Some classes of horses were not so strong numerically as in some former years but there was slight decrease and in the cattle stalls and, in fact in many corners, were animals of the best kind. The fat cattle department of the exhibition was superior to that of former years and in quality alone the most casual observer could see a great improvement over last year's entries. The stock was well fitted and well brought out.

The lectures, an important feature of the Fair, were well attended. The efforts of the management to compile a time-table for judging and lecturing so no events would conflict were rewarded with a good attendance at the different sessions and unprecedented interest.

### Horses.

**CLYDESDALES.**—A patron of the Clydesdale breed examines a horse from the ground up more often than from the top down. They must have feet and limbs to please, and when a good body is found on pleasing under-pinning, he'll do. They must show their shoes, and somehow the Clydesdales have the faculty of turning the steel up with more dexterity than any other of our heavy breeds. For fitting, quality, conformation and a good Clydesdale turnout the Guelph Winter Fair, which has been known for a long time as a good horse show, has never seen anything superior to that staged this year. The open classes were strong, and the home-bred stuff were a credit to any country. The Canadian-bred horses were vastly superior in numbers, and there appears little reason why breeders should make use of poor horses with so many good sires in the country and the possibilities so promising for producing more.

There is one place that history does not always repeat itself, and that is in the show-ring. The aged stallion class was interesting from many view points—one being the presence of Baron Ian, last year's champion horse. Another was the number of horses sired by Baron's Pride, and yet another was that the class was made up of fourteen of as good Clydesdale stallions as any one should wish to look upon. Subsequent judging showed there were better horses at the Fair, but as a class it was one of the best ever seen in the arena at the Winter Fair. R. S. Starr, of Port Williams, Nova Scotia, who judged the open classes, had in type, conformation and quality to consider in placing these horses, for each one of the first seven or eight had distinguishing points that made him a hard individual to place when the good points of the others were considered. After winning the championship last year it was thought that Baron Ian must go first. He had the outstanding quality of a good horse and a good top, but Baron Minto was so massive and so rigidly coupled that he could not be turned down. Although his bone was not quite so flat as that of Baron Ian yet it was flinty and plenty, and on the whole he was considered worthy of first honors. The next horse consistent with this type was Scotia's Pride, an animal with substance, quality and conformation indicative of strength. Third came Baron Ian with pronounced quality, good action, and the bearing of a good sire. Seldom, is his flat, flinty bone and fine feather excelled in any ring, but in comparison with Baron Minto he may lack a little in depth of hoof and in the nice manner in which the knee

and cannon bone join in the latter horse. It was splitting hairs, so to speak, in the placing of these three horses, but the judgment as a whole looked most consistent. Ardyne Blend was given the fourth place on account of a well-turned and nicely-muscled body, but he did not possess the quality manifest in the three above him. Next came three good horses sired by Baron's Pride. Baron George, Kircudbright Baron and Baron's Hope. They were the nice type of Clydesdale that we want in this country, combining substance, quality and proper action. Four out of the first seven winners were sired by Baron's Pride, showing the wonder influence of the King of Clydesdale horses.

The two winners at the Canadian National maintained their position in a class of nine three-year-olds. Barrington stood first and Prince of Brougham second as they did at Toronto, but a new fellow came third. On this occasion it was Fressilian, sired by Sir Hugo, and bred by one of Scotland's good horsemen. Only a very critical person could find fault with his action, and he carried a good top on a set of limbs to match. The fourth individual was Baron Senwick, another good son of Baron's Pride, and out of the Rose of Upper Senwick. He was right in every way, but extremists might wish for him a little larger set of feet. Baron o' Buchlyvie's contribution to this class was the candidate for fifth place, Dunure Lucky Star. He was not quite so lucky as some of his class-mates, but moved straight and was worthy of the place.

The outstanding figure in the two-year-old class was Baron Ascot. For quality, the right kind of a body, and the ability to show the shoes to suit horsemen this animal was given the red ribbon. He was furthermore honored with the championship of the Clydesdale breed and supremacy over all horses in the show, male or female. Baron's Blend was second in this class, and Thorndale third, while fourth stood Lord Malcolm. The fifth place was allotted to Prince Wright, and the five made up a quintette which the breed has no right to be ashamed of.

The class of aged mares fold some good Canadian-bred classes in the future. There were eight in all, making a class of females difficult to surpass; such names as Royalette and Ella Fleming are familiar to all Clydesdale admirers, but Bloomer came into the ring and wrested the laurels from them. This massive, well-coupled mare was supreme in fit and bloom, but she did not show her best on account of being heavy in foal. Royalette, an older mare, that is still one of the best brood mares in the country, lacked a little of the freshness she once possessed, but with it all stood out as a female worthy of any honors. Ella Fleming, the recipient of the white ribbon, showed as well in action as any candidate in the ring. She could do it on account of one of the best set of feet and limbs usually seen on a mare, but she lacked the substance of the two above her. In fourth place was Lady Sangster, and, like the mare above her, she had many good points, especially her quality and action, but she could not measure up to the winners for conformation and substance. It was a good class, and fifth in it was Hoghead Darling a good individual sired by Sir Humphrey. Bloomer was made champion Clydesdale mare, and later grand champion female of the breed.

The winning three-year-old mare at Toronto, Lassie of Petty, took second place in her class to Laura Dee. It was a close contest, but the winner is a little more reliable in her movement, never to go wrong. Popular Polly was popular with the judge and secured third honors, while fourth went to Iris of Petty, and fifth to Black Queen.

Six two-year-olds and four yearlings made up the remainder of the female classes. Exhibitors—Graham Bros., Claremont; W. W. Hogg, Thamesford, J. F. Husband, Eden Mills; Goodfellow Bros., Bolton; T. H. Hassard, Markham; G. W. Saunders, Jerseyville; Hugh McLean, Wyoming; W. Woodley & Son, Dundas; T. D. Elliott, Bolton; B. Bryson, Wyoming; John A. Boag & Son, Queensville; Smith & Richardson, Columbus; Bender & Walter, Cowanstown; Colin McKeighan, Strathroy; McKeighan & Watson, Strathroy; Robert Cox & Sons, Todmorden; W. A. Jones, Caledonia; J. T. Barton & Sons, Beeton; Chas. Gilstorf, Mount Forest; H. I. Bernhardt, Oro Station; W. H. Murray, Avonton; Fred I. Wilson, Riverbank; Joseph Fewster, Brampton; Albert Houson, Malton.

Awards.—Aged stallions: 1, Graham Bros., on Baron Minto by Baron's Pride; 2, Smith & Richardson, on Scotia's Pride by Crossrigg; 3, Boag & Sons, on Baron Ian by Baron's Pride; 4, Elliott, on Ardyne Blend by Hiawatha; 5, 6 and 7, Goodfellow Bros., on Baron George by Baron's Pride, Kircudbright Baron by Baron's Pride, and Baron's Hope by Baron's Pride. Stallion foaled in 1911: 1 and 2, Graham Bros., on Barrington by Cedric's Baron, and Prince of Brougham by Baron Burgie; 3, Smith & Richardson, on

Fressilian by Sir Hugo; 4, Boag & Sons, on Baron Senwick by Baron's Pride; 5, Bender & Walter, on Dunure Lucky Star by Baron o' Buchlyvie. Stallion foaled in 1912: 1 and 4, Graham Bros., on Baron Ascot by Baron's Pride, and Lord Malcolm by Mendel; 2 and 3, Smith & Richardson, on Baron's Blend by Baron's Pride, and Thorndale by High Honor; 5, Jones, on Prince Wright by General Miller. Stallion foaled in 1913: 1, Smith & Richardson, on Everard by Everlasting; 2, Graham Bros., on Cedric King by Cedric's Baron; 3, Barton & Sons, on Knight Elderslie by Elderslie Patriot. Aged mares: 1, Graham Bros., on Bloomer by Benedict; 2, Hogg, on Royalette by Royal Edward; 3, Watson & Sons, on Ella Fleming by Sam Black; 4, Smith & Richardson, on Lady Sangster by Baron Rothchild; 5, Murray, on Hoghead Darling by Sir Humphrey. Mare foaled in 1911: 1, Smith & Richardson, on Laura Dee by Baron O'Dee; 2, Graham Bros., on Lassie of Pettie by Farmer's Counsel; 3, Boag & Sons, on Popular Polly by Sir Hugo; 4, Hogg on Iris of Petty by Bonnie Buchlyvie; 5, Goodfellow Bros., on Black Queen by Everlasting. Mare foaled in 1912: 1, Boag & Sons, on Solway Duchess by Tittle Deeds; 2, 3, 4 and 5, Smith & Richardson, on Mandoline by Mendel, Black Jewel by Bydand, Black Maid by Fyvie Baron, and Beauty of Bucklet by Harviestown Baron. Mare foaled in 1913: 1, Smith & Richardson, on Lady Lochfergus by Signet; 2, Boag & Son, on Lady Ascot by Ascot Chief; 3, Wilson, on Ruby Lane by Montrave Ronald; 4, Houson, on Royal Mary. Champion Clydesdale stallion, Baron Ascot. Champion Clydesdale female, Bloomer.

**CANADIAN-BRED CLYDESDALES.**—The aged stallions representing Canadian breeding were lined up with Lord Ronald first; Glen Rae second, and Royal Marquis third. The white-ribbon horse was strongly topped, but none too springy in his action; Lord Ronald was best in this respect, and Glen Rae was good but did not move too straight.

Four three-year-olds were placed in the order of Maconbie first, Peerless Ascot second, Orla's Boy third, and Special Royal Favorite fourth. They were a strong, well-built lot.

Nine contestants responded to the call for two-year-olds, and from these Montrave Envoy was chosen for first place. The distinguishing features of this horse were his sloping shoulders and pasterns and good quarters, while International, the second prize horse, stood out as a deeper and better ribbed animal than the winner. Prince Roderic, which carried out the white ribbon, was a compactly-built horse with quality throughout, and Stratford Gay Bay looked well enough to occupy most any place in the ring. Acme's Favorite, sired by the old horse Acme, was given fifth honors, and Charming Scotchman stood sixth.

The yearling class was one of the best line-ups of the Canadian-bred stallions. Prince Carruchan, winner of his class at the Canadian National and London, was obliged to take second place to Ivory's Joy, a young horse by Black Ivory. This young stallion compared very favorably with anything bred in this country or in the Old Land. He was a dark brown or black in color, and possessed quality and substance. He was later made champion male of the Canadian-bred classes, winning honors from the older horses and the young foal, Duke Carruchan. Prince Carruchan cannot be faulted for lack of quality for he has plenty of it with excellent feet and limbs, but he did not show quite as good action as Ivory's Joy neither did he show the weight. Marquis Own, coming third, was well put together and firmly coupled, but from the body down was not on a par with Prince Carruchan or Ivory's Joy. Dunure Ivory gave an exhibition of good action, but he was a smaller horse than those which stood above him. Ton of Gold was given fifth place in this class of good horses on account of a fine quartette of feet and nice quality.

Out of four stallion foals Duke Carruchan was given first place, Avonton Royal Hero second, Punch of Glamis third, and Scottish Favorite fourth.

The champion female of the Canadian-bred classes was found in the aged mare class. Charm, by Lord Charming, was given first honors in her class and later champion female. Lady Favorite stood second and Black Bess third. Trim of Oro which has been seen often in the ring before went down to fourth place, and Scottish Queen stood fifth.

Four candidates came out in the three-year-old class, and six in the two-year-olds. In the former class Princess of Atha, a mare with good action and proper conformation, went first, and Flora Taney secured like honors in the class for two-year-olds.

The yearling females made one of the best classes seen throughout the entire show. Fifteen lined up and first place went to Nora Carruchan, but it was no easy winning. Scotland's Charm,

the candidate for second place, put up very strong arguments for the first position. Perhaps she did not show quite the outstanding quality possessed by Nora Carruchan, but she had a little more substance, a little more bone, and was on the whole a strong contestant for the highest place. Molly of Burreldells secured the white ribbon on account of good quality and fair action; but she could have gone a little closer behind. Rose of Glamis, in fourth place, was a stout and well-built filly with plenty of substance and proper action. Minnie Favorite was fifth, and Hillside Pearl sixth.

A class of five filly foals gave promise of something good to come later on, especially the little, grey, Ivory Margaret, which won first place in the class.

**Exhibitors.**—Thomas McMichael & Sons, Seaford; B. D. Turnbull, Branchton; Graham Bros., Claremont; William Woodley & Sons, Dundas; R. C. Rogerson, Fergus; Joseph Telfer, Milton; James Spier, Brussels; J. F. McKenzie, Woodstock; T. H. Hassard, Markham; W. J. Taylor, Grand Valley; John W. Pinder, Sharon; Geo. Gropp, Milverton; John Arbogast, Stratford; John Vipond, Brooklin; Jas. A. Milne, Fergus; R. M. Holtby, Port Perry; J. T. Barton & Son, Beeton; Jas. H. Hall, Orton; Alex. Clayton, Grand Valley; W. F. Batty, Brooklin; Isaac Weylie, Caledonia; Peter Christie, Manchester; A. Watson & Sons, St. Thomas; Fred. J. Wilson, Riverbank; Jas. Bowman, Guelph; W. H. Murray, Avonton; John D. Campbell, Palmerston; Geo. Miller, Black Heath; Geo. W. Reist, Floradale; Charles Gilstorf, Mount Forest; Geo. Clayton, Grand Valley; Jas. A. Brander, Elora; Robert Duff, Myrtle; H. I. Barnhardt, Oro Station; Michael Riehl, Stratford; Elijah Wray, Schomberg; Jas. Nichol, Hagersville; Robert R. Watt, Blyth; Frank W. Bradley, Seagrave; Joseph Fewster, Brampton; William Jacob, Stratford; John D. Mc Gibbon, Milton; Wm. French, Mitchell; Robt. Clarke, Carlingford; Smith & Richardson, Columbus.

**Awards.**—Aged stallions: 1 and 2, McMichael & Sons, on Lord Ronald by Baron's Luck, and Glen Rae by Great Britain; 3, Turnbull, on Royal Marquis by Moncreiff Marquis. Stallion foaled in 1911: 1, Graham Bros., on Macconie by McQueen; 2, Rogerson, on Orla's Boy by Prince Orla; 3, Woodley & Sons, on Peerless Ascot by Prince Ascot; 4, Telfer, on Special Royal Favorite by Monteith Favorite. Stallion foaled in 1912: 1, Milne, on Montrave Envoy by Montrave Magnus; 2, McMichael & Sons, on International by Prince Romeo; 3, Vipond, on Prince Roderic by Royal Roderick; 4, Arbogast, on Stratford Gay Boy by Nigel; 5, Holtby, on Acme's Favorite by Acme. Stallion foaled in 1913: 1, Smith & Richardson, on Ivory's Joy by Black Ivory; 2, Batty, on Prince Carruchan by Gallant Carruchan; 3, Alex. Clayton, on Marquis Own by Moncreiff Marquis; 4 and 5, Christie, on Dunure Ivory by Dunure Soutar, and Ton of Gold by Homestake. Stallion foaled in 1914: 1, Batty, on Duke Carruchan by Gallant Carruchan; 2, Murray, on Avonton Royal by Royal Consort; 3, Gropp, on Punc of Glamis by Knight of Glamis; 4, Campbell, on Scottish Favorite by Scottish Yoeman. Aged mares: 1, Miller, on Charm by Lord Charming; 2, Campbell, on Lady Favorite by General Favorite; 3, Gilstorf, on Black Bess by Castle King; 4, Watson & Sons, on Trim of Oro by Baron Gartley; 5, Geo. Clayton, on Scottish Queen by Scottish Celt. Mare foaled in 1911: 1, Duff, on Princess of Atha by Bay Ronald; 2, McMichael & Sons, on Spring Beauty by Glen Rae; 3, Milne, on Rose Marquis by Montrave Marquis; 4, Reist, on Maud Fashion by Rozell. Mare foaled in 1912: 1, Riehl, on Flora Tangy by Ronald of Tangy; 2, Nichol, on Walpole Lady by Commodore; 3, Gropp, on Lady Blend by Highland Blend; 4, Wray, on Lena Baron by Celtic Baron; 5, Arbogast, on Bonnie McGregor by Edward McGregor. Mare foaled in 1913: 1, Batty, on Nora Carruchan by Gallant Carruchan; 2, Miller, on Scotland Charm by Kimburnie; 3, Brander, on Molly of Burreldells by Kings Seal; 4, Gropp, on Rose of Glamis by Knight of Glamis; 5, Bardley, on Minnie Favorite by Clan Favorite. Mare foaled in 1914: 1, Smith & Richardson, on Ivory Margaret by Black Ivory; 2, French, on Primrose by Mucius; 3, Batty, on Nellie Carruchan by Gallant Carruchan; 4, Watt, on Flora Dora by Glen Rae; 5, Clarke, on Fanny C. by Mucius. Champion Canadian-bred Clydesdale stallion, Ivory Joy. Champion Canadian-bred Clydesdale female, Charm.

#### PERCHERONS.

This breed made a more imposing exhibition than they did last year. Some of last season's winners came back and repeated their victories, while intermingled throughout the different classes was some imported blood that spelt defeat for winners of former years.

Numerically the aged stallion class was twice as strong as last year, lacking one. Eleven lined up and the beautiful head and neck coupled to a Percheron body of each one beside ten others of its kind made a sight worth seeing. The awards begin similar to last year's report, Elliott win-

ning first place on Irade a large grey sire, well proportioned and set on a good set of limbs which are controlled in a pleasing manner. Kavaignac, one of old Romancier's get, came second and made Irade show well to win. The former horse moved straight, but he did not show as good hock action as the winning entry. Following these two greys came Jet, a black with Etudiant blood, and lots of courage in his movement. Kakiz was fourth and Komb fifth. They were not so adept in the operation of showing their steel as those in the high places, but for conformation and style they were worthy winners.

For quality, honors went to the three-year-old class. From a noble lot, Lenoir was selected to receive the red ribbon and ultimately the championship. Substance, quality, limbs and expression are all pronounced in this shiny black stallion which rightly won the highest honors for Hodgkinson & Tisdale. Luth, the second-prize winner gave as good an exhibition of action as any horse in the ring and was only beaten by small odds. Lorrain was third and Longtemps fourth. If the latter horse were consistent throughout, that is if his action were as good as his massive body and muscular make up he would be a hard horse to beat. Lancastrien, a fair mover and a good limbed and a good bodied horse was fifth.

Four stallions foaled in 1912 came forward and went out in the order of Miroton first, Mardi second, Diplomat third and Molot last. For general fitness to win a class, Miroton was best prepared. He was in prime condition, possessed a good carriage and lots of substance. Mardi was much the same type as the winner, while Diplomat showed the best action of any horse in the ring but was not in proper fit to show in such a class.

The female classes had three candidates each. Lacune won the aged class with honors and was awarded the championship. Mela, by the dead Imprecation, was considered best of the young females but she could not win any higher honors from the more elderly matron.

The awards in the Percheron classes were made by Robert Graham, Toronto.

**Exhibitors.**—R. Hamilton & Son, Simcoe; Milton Porter, Simcoe; J. B. Hogate, Weston; Noble Johnson, West Toronto. Hodgkinson & Tisdale, Beaverton; T. D. Elliott, Bolton; M. Dymont, Brantford; Cheyne & Steen, Brampton; A. F. McNiven, St. Thomas; Joseph Telfer, Milton.

**Awards.**—Aged Stallions: 1, Elliott on Irade by Sahara; 2, Hamilton on Kavaignac by Romancier; 3, Cheyne & Steen on Jet by Etudiant; 4, Hogate on Kakiz by Galop; 5, Porter on Komb by Felot. Stallion foaled in 1911: 1 and 3, Hodgkinson & Tisdale on Lenoir by Moulinet, Lorrain by Hanneton; 2, 4 and 5, Hamilton on Luth by Hommage, Longtemps by Fernand, and Lancastrien by Fenicyele. Stallion foaled on or after January 1st, 1912: 1, 2 and 4, Hodgkinson & Tisdale on Miroton by Harenguet, Mardi by Isaac, and Molot by Imposant; 3, McNiven, on Diplomat by Pink Borodina. Mare foaled previous to January 1st, 1912: 1, Hogate, on Lacune by Gogel; 2, Hodgkinson & Tisdale on Leste by Zanzarbar; 3, Telfer on Kaille by Ermete. Mare foaled on or after January 1st, 1912: 1 and 3, Hodgkinson & Tisdale on Mela by Imprecation, and Marquette by Hidalgo; 2, Elliott on Maline by Incitatus. Champion Stallion: Hodgkinson & Tisdale on Lenoir. Champion female: Hogate on Lacune.

#### SHIRES.

This breed is never strong in entries at the Guelph Winter Fair, but each year a few good individuals come forward and keep themselves before the people as a large serviceable horse. Johnson Bros., Croton and John Guardhouse & Sons, Highfield, were the two exhibitors. King Junior, the aged entry was given the championship over Watnall King, Gardhouse's two-year-old and champion at Toronto. The former is a massive horse with strong limbs and good action. Watnall King showed to good advantage and when he adds more substance on top of his excellent quality of feet and limbs he must be heard from in the keenest competition.

Three mares, Gray Fuchsia, Denstow Fuchsia and Hattie Kitchener competed. The former two for Johnson Bros., and the latter for Gardhouse. Hattie Kitchener was placed first and Gray Fuchsia second, Nicousis Queen, Gardhouse's two-year-old gained preference over the other females, and was given the ribbon of honor in the filly classes.

**HEAVY-DRAFT HORSES.**—Four classes were devoted to geldings and mares for work purposes. The winning team was an immense pair of geldings, well fitted and nicely brought out. King Ravenna and Queen Buttress, which have shown formerly as Ravenna King and Ravenna Queen were in good show shape and put up strong competition for first place. They were second, however, followed by two good teams shown by Mournaham and Hodgkinson & Tisdale.

**Exhibitors.**—Arthur Sayles, Paris; John Hillis, Grand Valley; R. N. Crake, Bradford; Geo. Mournaham, Grand Valley; Andrew Acheson,

Guelph; Hodgkinson & Tisdale, Beaverton; Geo. Clayton, Grand Valley; J. A. Milne, Fergus; Sam Hastings, Tottenham; Wm. Argo & Sons, Eder Mills; J. D. Campbell, Palmerston; Herbert Matthews, Meadowvale.

**Awards.**—Gelding or mare in single harness: 1 and 4, Crake, on Pat, and Mack; 2, Mournaham, on High Degree; 3 and 5, Sayles, on King Ravenna and Queen Buttress. Gelding or mare foaled previous to January 1st, 1912, on line: 1 and 3, Crake, on Pat, and Mack; 2, Mournaham, on High Degree; 4, Clayton, on Daisy Moncreiff; 5, Hillis, on Joe. Gelding or mare foaled on or after January 1st, 1912, shown on line: 1, Hastings, on Silver Lion; 2, Matthews, on Maud; 3, Argo & Sons, on Queen of Everhill; 4, Campbell, on Jessie. Team in harness, geldings or mares: 1, Crake, on Pat and Mack; 2, Sayles, on Queen Buttress and King Ravenna; 3, Mournaham, on Saugeen Pride and High Degree; 4, Hodgkinson & Tisdale, on College Queen and Lady Bain.

**HACKNEYS.**—As usual the Hackneys were a splendid exhibit. Some excellent horses came forward, and at times the enthusiasm was very pronounced as they performed up and down the arena. In the aged class De Wilton and Spartan were perhaps the closest contestants, but the former horse was superior in nerve and action. Colorito came third and Anticipator fourth. Brookfield Laddie, the winner of the class under 15.2 hands high and later champion of the breed, was indeed an excellent horse. He was a bold, fearless mover and apparently set on springs, so lightly did he touch the ground. This breed as well as the remaining light breeds was judged by Dr. J. A. Sinclair, Cannington.

**Exhibitors.**—Graham Bros., Claremont; James Semple, Milverton; Tilt & Cheyne, Brampton; D. A. Graham, Wyoming; Henry Douglas & Co., Meaford; J. R. Thompson, Guelph; J. F. Husband, Eden Mills; A. Watson & Sons, St. Thomas; Moses Forsyth, Mitchell; W. C. Quickfall, Glen Allan; W. W. Hogg, Thamesford; Joseph Telfer, Milton; James Tilt, Brampton; Harcourt Blackstock, Thornton; W. F. Batty, Brooklin; R. C. Rogerson, Fergus.

**Awards.**—Stallion foaled previous to January 1st, 1912, 15.2 and over: 1, Semple, on De Wilton, by Drumlanrig; 2, Tilt & Cheyne, on Spartan by Polonius; 3, Graham Bros., on Colorito by Rosador; 4, Douglas & Co., on Anticipator by Rosador; 5, Graham, on Guelph Performer by Square Shot. Stallion foaled previous to January 1st, 1912, under 15.2: 1, Husband, on Brookfield Laddie by Smylett Swell; 2, Forsyth, on Autocrat by Garton Duke; 3, Quickfall, on Income by Rosador; 4, Watson, on Wenona Jubilee by Jubilee Chief. Stallion foaled on or after January 1st, 1912: 1 and 2, Telfer, on Paderewski by Vanguard, and Harry Lauder by Warwick Model; 3, Watson, on Wenona Performer by Guelph Performer; 4, Hogg, on Oscar by Terrington Semaphore. Mare, two years old or over: 1, Husband, on Princess Winyard by Warwick Model; 2, Telfer, on Princess Eudora by Vanguard; 3, Watson, on Dainty's Maid by Guelph Performer; 4, Tilt, on Miss Derwent by Derwent Performer; 5, Thompson, on Quickstep Fairy by Commodore. Mare foaled in 1912: 1 and 5, Blackstock, on Peggy Thornton by Blanch Surprise, and Daisy Thornton by Blanch Surprise; 2, Thompson, on Dixie by Warwick Model; 3, Rogerson, on Dainty Model by Warwick Model; 4, Batty, on Madge by Spartan. Champion stallion, Husband, on Brookfield Laddie. Champion female, Husband, on Princess Winyard.

**STANDARD BREDS.**—Standard-breds did not possess heavy classes, that for aged stallions being the largest and containing eight entries. Jim Todd, a horse that has won many times in the show-ring in this country and the neighboring Republic, was placed first, but it was a surprise to a good many onlookers to see Mograzia and Bonn take second place to Jim Todd. True it is, he gave an exhibition of speed, but to the general run of breeders the horses Bonn and Mograzia look good. This was ring-side opinion, however, and the horse which won may be quite worthy of the position. The female championship went to Mary Regina, belonging to the Cruickston Stock Farm.

**Exhibitors.**—A. C. McMillan, Erin; Smith & Richardson, Columbus; The Cruickston Stock Farm, Galt; P. J. Farrell, Woodstock; W. H. Grosch, Milverton; M. P. Barry, Rockwood; Thos. Skinner, Mitchell; D. Douglas & Sons, Mitchell.

**Awards.**—Stallion foaled previous to January 1st, 1912: 1, Cruickston Farm, on Jim Todd by Todd; 2, Farrell, on Mograzia by Moko; 3, Smith & Richardson, on Bonn by Bingara; 4, McMillan, on Alnared by Allering; 5, Barry, on Michael Bals by Steel Arch. Stallion under two years old: 1, Grosch, on Gilbert Patch by Dan Patch; 2, Skinner, on Dothan by Moko; 3, Cruickston Farm, on Jim Elden by Jim Todd. Mare foaled previous to January 1st, 1912: 1, Cruickston Farm, on Mary Regina by Mograzia. Mare foaled on or after January 1st, 1912: 1, Cruickston Farm, on Sheena Todd by Jim Todd; 2, Douglas & Sons, on Topsy Pointer by King of Monbars.



THOROUGHBREDS.—Some well-known horses and a few new ones came forward in the class for aged Thoroughbred stallions. Joe Nealon, a fleet horse which has raced his way from Vancouver to Guelph was chosen for first place. Nasbaden and Selwick, as usual, were close contestants. On this occasion Nasbaden was given preference over his competitor and Selwick went third.

Exhibitors.—A. E. Burrie, Guelph; John Covantry, Woodstock; F. V. Parsons, Guelph; Ronald Thayer, Aylmer; Wm. Lowes, Drayton; D. McCrae, Guelph; James Bovaird, Brampton; James McBurney, Toronto; D. A. Boyle, Woodstock; E. B. Clancy, Guelph.

Awards.—Stallion foaled previous to January 1st, 1912: 1, Bovaird on Joe Nealon by Kismet; 2, Thayer on Nasbaden by Nasturtium; 3, McBurney on Selwick by Knight of the Thistle; 4, Currie on Charlie Gilbert by Masetto; 5, Lowes on Glimmer by Martimas. Mare foaled previous to January 1st, 1912: 1 and 3, Clancy on Carrillon by Chuctawunda, and Miss Morgan by St. Blaise; 2, Boyle on Cast Steel by Pontiac; 4, Coventry on Lady Roseberry Coventry by Cruicklade.

PONIES.—Coming as it did on Children's afternoon, the exhibition of ponies was very much appreciated by the juvenile audience. There is always considerable interest taken in these pet horses, while their diminutiveness makes them very attractive. In the Shetland stallion class two horses came forward, father and son, the elder being eighteen years old, the latter six months. Out of respect, perhaps, preference was given the aged horse. R. R. Ballagh & Son, Guelph, who exhibited these horses also showed the champion stallion which happened to be a cross between Shetland and Welsh pony.

Cattle.

BEEF CATTLE.

In the report of these classes last year we spoke rather disparagingly of the fit and fleshing of the entries but the classes as a whole were so well qualified to appear at any exhibition that we are obliged to commend the breeders, feeders and exhibitors on the high-class exhibit this year. The parade of beef cattle was perhaps the best ever seen at the Fair and no one could do otherwise than speak in appreciative tones of the cattle exhibit at the Guelph Winter Fair in 1914.

SHORTHORNS.

As usual the Shorthorns outnumbered other pure-bred classes, neither was their quality any less on account of numerical strength. The animals were well fitted and the strong classes made a showing quite in keeping with the popularity of the breed. Capt. T. E. Robson, of London, made the awards in all cattle classes.

The champion Shorthorn steer and grand champion fat animal of the show was exhibited by Pritchard Bros., Fergus, in the yearling class. The winner is a blocky steer, fairly low-set and evenly fleshed. He was sired by Royal Archer, and out of the Shorthorn cow, Molly.

Exhibitors.—T. A. Russell, Downsview; D. A. Graham, Wyoming; Jas. McPherson & Sons, Dundalk; Adam A. Armstrong, Fergus; John Brown & Son, Galt; A. Barber, Guelph; John McLean, Seaford; R. F. Duncan, Caledonia; Wm. Argo & Son, Guelph; Henry Larter, Rockwood; Frank Smith & Son, Scotland; J. & E. Ford, Fergus; Pritchard Bros., Fergus; J. W. Duncan, Caledonia; Daniel Wright, Ariss; A. F. & G. Auld, Guelph; Kyle Bros., Drumbo; Herb. Matthews & Sons, Meadowvale; G. & W. Parkinson, Guelph; David Smith, Carluke; Wm. James Beatty, Guelph.

Awards.—Steer, two years old and under three: 1, Barber; 2, Russell; 3, Brown; 4, McPherson; 5, Armstrong. Steer, one year and under two: 1, Pritchard Bros.; 2, Russell; 3, Barber; 4, Duncan; 5, Argo. Steer under one year: 1, Wright; 2, Duncan; 3, Smith; 4, Brown; 5, Graham. Heifer, two years and under three: 1, Kyle; 2, Auld; 3, Smith. Heifer one year and under two: 1, Auld; 2 and 3, Kyle; 4 and 5, Smith. Heifer under one year: 1, Parkinson; 2 and 3, Auld; 4 and 5, Smith.

HEREFORDS.

The representatives of the Hereford breed were not so numerous as the Shorthorns but they were well prepared for the Show and made a far stronger exhibit than they did last year. The three exhibitors were James Page, Wallacetown; Adam A. Armstrong, Fergus; and Henry Reed, Orton.

Awards.—Steer or heifer, two years and under three: 1, Armstrong; 2 and 3, Page. Steer or heifer, one year and under two: 1 and 2, Page. Steer, under one year: 1, Page; 2 and 3, Reed. Heifer, under one year: 1, 2 and 3, Page. Champion animal: Page on a yearling heifer.

ABERDEEN-ANGUS.

Only two competitors brought forward any doddies. Jas. Bowman, Guelph, and John Lowe, Elora, exhibited in three classes. Lowe had the only steer one-year and under two, while Bowman secured the money in the class for steer or heifer.

one year and under two. In the class for heifer, under one year, Lowe secured the first and second prizes and Bowman third. The champion animal of the breed was exhibited by Bowman.

GALLOWAYS.

This breed was represented by entries from the herd of Col. D. McCrae, Guelph. There being no competition, the prizes were awarded to the one exhibitor.

GRADES AND CROSSES.

These classes gave a strong impression of beef production from a broad view-point. It was not the breed that won, but the type, and onlookers could see as either Shorthorn, Angus or Hereford neared the honored end that type, and skillful care and feeding were responsible for quality rather than breed character. Hector, a junior yearling steer of Angus breeding which won honors as the champion butcher calf for Lowe at the National Live Stock Show, at Toronto, last year developed into a steer good enough to win the championship of the grades and crosses, but he went down to defeat before Pritchard's Shorthorn. It was close, however, and at the Toronto Stock Yard show immediately after, the decision was reversed. The entire show of grades and crosses was good and the classes were well filled with numbers and quality.

Exhibitors.—T. A. Russell, Downsview; D. A. Graham, Wyoming; Adam A. Armstrong, Fergus; A. Barber, Guelph; John McLean, Seaford; J. W. Duncan, Caledonia; Fred Armstrong, Rockwood; Kyle Bros., Drumbo; John Brown & Sons, Galt; H. E. Alton, Jr., Everton; Peter McLaren, Hillsburg; Henry Larter, Rockwood; Frank W. Smith & Son, Scotland; John Lowe, Elora; John Dickieson, Rockwood; James Leask & Sons, Seagrave; D. H. Jones, Elora; Daniel Wright, Ariss; J. P. Henderson, Guelph; Wm. Aitchison, Guelph; J. Elmer Woods, Lucknow; Geo. Ferguson, Salem; Chas. Mighton, Elora; Gardiner Wood, Rockwood; James Leslie, Acton; Jas. Page, Wallacetown; Jas. Cleghorn, Elora; John Wright, Elora; Geo. Amos & Sons, Moffat; Jas. Barbour Sr., Lucknow; Alex. Farquar, Elora; Wm. Fear, Blyth; Robert McQueen, Arthur; Thomas Forest, Guelph.

Awards.—Steer, two years and under three: 1, Russell; 2, 3 and 4, Barber; 5, Adam Armstrong. Senior yearling steer: 1, Kyle; 2 and 3, Barber; 4, Adam Armstrong; 5, Brown. Junior yearling steer: 1, Brown; 2 and 4, Leask; 3 and 5, Adam Armstrong. Senior steer calf: 1, Leask; 2, Ferguson; 3, Adam Armstrong; 4, Henderson; 5, Lowe. Junior steer calf: 1, Cleghorn; 2, Adam Armstrong; 3, Wright; 4, Leask; 5, Page. Heifer, two years and under three: 1, Alton; 2, Kyle; 3, Henderson; 4, Adam Armstrong; 5, Farquar. Yearling heifer: 1, Barber; 2, Leask; 3 and 4, Henderson; 5, Barbour. Heifer calf: 1, Lowe; 2, Leask; 3, Fear; 4, McQueen; 5, Forest.

PURE-BREDS OR GRADES AND CROSS.—

(Open only to amateurs).—Exhibitors.—Jas. McPherson & Sons, Dundalk; Wm. Argo & Sons, Guelph; Henry Larter, Rockwood; J. W. Duncan, Caledonia; Fred Armstrong, Rockwood; J. & E. Ford, Fergus; Peter McLaren, Hillsburg; Jack Sullivan, Elora; J. W. Duncan, Caledonia; John Dickieson, Rockwood; Wm. Snell, Londesborough; A. R. Wood, Fergus; D. H. Jones, Elora; Wm. Aitchison; J. Elmer Woods, Lucknow; Wm. R. Hamilton, West Montrose; Chas. Mighton, Elora; Gardiner Wood, Rockwood; Jas. Leslie, Acton; Jas. Cleghorn, Elora; John Wright, Elora; Alex. Farquar; Herb. Matthews & Sons, Meadowvale; Robt. McQueen, Arthur; Wm. Fear, Blyth; D. H. Jones, Elora.

Awards.—Two-year-old steer: 1, McPherson. Senior yearling steer: 1 and 2, Argo; 3, Larter; 4, Fred Armstrong; 5, Duncan. Junior yearling Steer: 1, Wood; 2, McLaren; 3, Jones; 4, Sullivan. Senior steer calf: 1, Aitchison; 2, Snell; 3, Wood; 4, Mighton; 5, J. Woods. Junior steer calf: 1, Cleghorn; 2, Dickieson; 3, Wright; 4, Aitchison. Two-year-old heifer: 1, Farquar. Yearling heifer: 1, Dickieson. Heifer calf: 1, Matthews; 2, Fear; 3, Cleghorn; 4 and 5, McQueen.

EXPORT STEERS.—Five trios of export steers lined up for inspection with many good individuals amongst them. John McLean, Seaford, was honored with the red ribbon on three fresh steers just in prime. A. Barber, of Guelph, had two entries, one set of which were considered for first place, but they were not so strong nor considered to possess all the requirement of export steers seen in prize winners. T. A. Russell, Downsview, had the fourth prize trio, and Adam Armstrong the fifth.

Sheep.

The sheep exhibit at the Guelph Winter Fair has never surpassed that put up this year, and it has not been equalled for a good many years. There was an excellent exhibit of Oxfords, which made a stronger showing than usual. Hampshires were good, Leicesters on an average with other years, while the Lincolns made a strong show. For uniformity and quality the Southdowns probably put up a stronger exhibit than any other breed. This class of sheep contributed the

Drummond cup winners in five Southdowns exhibited by Robt. McEwen, Byron, and three of them captured the Prince of Wales prize which this year was donated to the sheep department. John Kelly & Sons, showed the champion wether, a thick and firmly-fleshed sheep.

COTSWOLDS.—Exhibitors.—G. H. Mark & Son, Little-Britain; E. Brien & Sons, Ridgetown; Jas. A. Campbell, Thedford; Sam Dolson & Son, Norval Station; J. Lloyd-Jones, Burford.

Awards.—Ewe, under one year: 1 and 2, Campbell; 3 and 4, Brien. Three ewes under one year: 1 and 4, Campbell; 2, Brien; 3, Mark; 5, Dolson. Wether, one year and under two: 1, Mark; 2 and 4, Brien; 3, Dolson; 5, Campbell. Wether, under one year: 1, 3 and 5, Mark; 2 and 4, Campbell. Three wethers under one year: 1, Mark; 2, Campbell; 3, Brien; 4, Lloyd-Jones; 5, Dolson. Champion Wether, Mark.

LINCOLNS.—Exhibitors.—H. Lee, Highgate; L. Parkinson, Guelph; Peter A. McIntyre, Parkhill; John S. Gosnell & Sons, Highgate; Jos. Linden, Denfield; John Kelly & Son, Shakespears.

Awards.—Ewe under one year: 1 and 4, Lee; 2, and 5, Gosnell; 3, Linden. Three ewes under one year: 1, Lee; 2, Gosnell; 3, Linden; 4, Parkinson; 5, McIntyre. Wether, one year and under two: 1, Lee; 2 and 5, Linden; 3, Kelly; 4, Gosnell. Wether under one year: 1, 3, and 4, Linden; 2, Parkinson; 5, Lee. Three wethers under one year: 1, Linden; 2, Lee; 3, Parkinson; 4, Gosnell. Champion wether, Lee.

LEICESTERS.—Exhibitors.—John Kelly & Son, Shakespears; A. & W. Whitelaw, Guelph; Jas. Clark & Son, Morriston; Jas. Roy, Mitchell.

Awards.—Ewe under one year: 1 and 4, Whitelaw; 2 and 3, Kelly; 5, Clark. Three ewes under one year: 1, Kelly; 2, Whitelaw; 3, Clark; 4, Roy. Wether, one year and under two: 1, Roy; 2 and 5, Kelly; 3 and 4, Whitelaw. Wether under one year: 1 and 4, Kelly; 2 and 5, Whitelaw; 3, Roy. Three wethers under one year: 1, Kelly; 2, Whitelaw; 3, Roy. Champion wether, Roy.

OXFORDS.—Exhibitors.—Glenn W. Witham, Villa Nova; Karl Broadfoot, Allenford, E. Barbour, Erin; J. A. Cerswell, Bond Head; Peter Arkell & Sons, Teeswater; W. E. Wright & Son, Glasworth; A. T. Stevenson, Atwood.

Awards.—Ewe under one year: 1, 2 and 4, Arkell; 3, Barbour; 5, Witham. Three ewes under one year: 1, Arkell; 2, Barbour; 3, Witham; 4, Cerswell; 5, Broadfoot. Wether, one year and under two: 1 and 2, Arkell; 3, Wright; 4, Stevenson; 5, Barbour. Wether under one year: 1, Barbour; 2 and 3, Arkell; 4, Stevenson; 5, Cerswell. Three wethers under one year: 1, Arkell; 2, Barbour; 3, Cerswell; 4, Stevenson. Champion wether, Arkell & Sons.

SHROPSHIRE.—Exhibitors.—J. & D. J. Campbell, Woodville; Ernest Fleming, Tara; John B. Kelsey, Woodville; J. E. Brethour & Nephews, Burford; J. Lloyd-Jones, Burford; J. W. Springstead & Sons, Abingdon; Peter Arkell & Sons, Teeswater; W. G. Wright & Son, Glasworth.

Awards.—Ewe under one year: 1, 3 and 4, Campbell; 2, Brethour. Three ewes under one year: 1 and 3, Campbell; 2, Brethour; 4, Fleming; 5, Kelsey. Wether one year and under two: 1, Wright; 2, Arkell; 3, Springstead; 4, Campbell; 5, Kelsey. Wether under one year: 1, Lloyd-Jones; 2 and 3, Brethour; 4, Campbell; 5, Kelsey. Three wethers under one year: 1, Brethour; 2, Lloyd-Jones; 3, Campbell; 4, Kelsey. Champion wether, J. Lloyd-Jones.

SOUTHDOWN.—Exhibitors.—Robt. McEwen, Byron; J. W. Springstead & Sons, Abingdon; Hampton Bros., Fergus; Geo. Baker & Son, Burford; J. Lloyd-Jones, Burford; D. A. Graham, Wyoming; S. Lemon, Kettleby; Peter Arkell & Sons, Teeswater; Geo. L. Telfer, Paris.

Awards.—Ewe under one year: 1, 2 and 3, McEwen; 4, Hampton Bros. Three ewes under one year: 1, McEwen; 2, Hampton Bros.; 3, Springstead; 4, Baker; 5, Lloyd-Jones. Wether one year and under two: 1, 4 and 5, McEwen; 2, Springstead; 3, Arkell. Wether under one year: 1 and 3, McEwen; 2 and 4, Hampton Bros.; 5, Springstead. Three wethers under one year: 1, McEwen; 2, Hampton Bros.; 3, Springstead; 4, Telfer; 5, Baker. Champion wether, McEwen.

DORSET HORNS.—Exhibitors.—W. E. Wright & Son, Glasworth; Jas. Robertson & Sons, Hornby.

Awards.—Ewe under one year: 1 and 3, Robertson; 2, 4 and 5, Wright. Wether one year and under two: 1, 2 and 4, Wright; 3, Robertson. Wether under one year: 1, 2 and 4, Robertson; 3 and 5, Wright. Three wethers under one year: 1, Robertson; 2, Wright. Champion wether, Wright.

HAMPSHIRE AND SUFFOLKS.—Exhibitors.—Geo. Henderson, Guelph; John Kelly & Son, Shakespears; Geo. L. Telfer, Paris; Jas. Bowman, Guelph.

Awards.—Ewe under one year: 1, 2 and 5, Kelly; 3 and 4, Telfer. Wether one year and under two: 1, Kelly; 2, Bowman; 3, Henderson. Wether under one year: 1, 4, and 5, Kelly 2 and 3, Bowman. Three wethers under one year: 1, Kelly. Champion wether, Kelly & Son.

GRADE OR CROSS.—Exhibitors.—E. Brien &

Son, Ridgetown; John Kelly & Son, Shakespeare; A. & W. Whitelaw, Guelph; H. Lee, Highgate; John S. Gosnell & Son, Highgate; Jos. Linden, Denfield; L. Parkinson, Guelph; Jas. A. Campbell, Bedford; Jas. Roy, Mitchell; J. Lloyd-Jones, Burford; J. & D. J. Campbell, Woodville; John R. Kelsey, Woodville; W.E. Wright & Son, Glanworth; S. Lemon, Kettleby; J. A. Cerswell, Bond head; Geo. Baker & Son, Burford; D. A. Graham, Wyoming; Geo. L. Telfer, Paris; J. W. Springstead & Son, Abingdon; Jas. Robertson & Sons, Hornby; Jas. Bowman, Guelph; Peter Arkell & Sons, Teeswater.

**Awards.—(Long Woolled Breeds).—Wether one year and under two:** 1, Linden; 2, Gosnell; 3 and 4, Lee; 5, Whitelaw. **Wether under one year:** 1 and 3, Parkinson; 2, Kelly; 4 and 5, Linden. **Three wethers under one year:** 1, Parkinson; 2, Linden; 3, Kelly; 4, Whitelaw; 5, Lloyd-Jones. **Champion wether, Linden.**

**(Short Woolled Breeds).—Wether one year and under two:** 1, Kelly; 2, Lloyd-Jones; 3 and 5, Campbell; 4, Kelsey. **Wether under one year:** 1, 3 and 5, Arkell; 2, Telfer; 4, Robertson. **Three wethers under one year:** 1, Arkell; 2, Campbell; 3, Kelsey; 4, Lloyd-Jones; 5, Wright.

**Champion wether over all-breeds, grade and cross, Kelly & Sons.**

### Dressed Carcasses.

**COTSWOLD.—Wether one year and under two:** 1 and 2, Brien; 3, Dolson. **Wether under one year:** 1, Jas. Campbell; 2, Lloyd-Jones; 3 and 5, Brien; 4, Dolson.

**LINCOLNS.—Wether one year and under two:** 1 and 2, Linden; 3, Lee. **Wether under one year:** 1, Parkinson; 2, Gosnell; 3, Linden; 4 and 5, Lee.

**LEICESTERS.—Wether one year and under two:** 1, Whitelaw. **Wether under one year:** 1, Kelly; 2, Roy; 3, Whitelaw.

**OXFORDS.—Wether one year and under two:** 1, Cerswell; 2 and 3, Stevenson; 4, Barbour; 5, Wright. **Wether under one year:** 1 and 2, Stevenson.

**SHROPSHIRE.—Wether, one year and under two:** 1, Springstead; 2, 3 and 4, Lloyd-Jones; 5, Kelsey. **Wether under one year:** 1 and 2, Brethour; 3 and 5, Kelsey; 4, Lloyd-Jones.

**SOUTH DOWNS.—Wether, one year and under two:** 1 and 2, McEwen; 3, Baker & Sons; 4, Lemon; 5, Lloyd-Jones. **Wether under one year:** 1, McEwen; 2, Springstead; 3, Baker; 4, Telfer; 5, Lloyd-Jones.

**DORSET HORNS.—Wether, one year and under two:** 1, 3 and 4, Wright; 2, Robertson. **Wether under one year:** 1 and 3, Wright; 2, Robertson.

**HAMPSHIRE AND SUFFOLKS.—Wether one year and under two:** 1, Henderson. **Wether under one year:** 1, Kelly; 2, Henderson.

**Grade or Cross sired by ram of long-wooled breed.—Wether, one year and under two:** 1, Brien; 2, Gosnell; 3, Linden; 4, Whitelaw. **Wether under one year:** 1, Whitelaw; 2, Linden; 3, Whitelaw; 4, Lloyd-Jones; 5, Roy.

**Grade or Cross sired by ram of short-wooled breed.—Wether, one year and under two:** 1, Lloyd-Jones; 2, Baker; 3, Wright; 4, Lemon; 5, Cerswell. **Wether under one year:** 1, Wright; 2, Graham; 3 and 5, Kelsey; 4, Telfer.

The judges of the various breeds were: Cotswolds, Chas. Shores, Glanworth; Leicesters, Jas. Douglas, Saledonia; Lincolns, Harry Gibson, Denfield; Oxfords, W. H. Beattie, Wilton Grove; Shropshires, Hampshires and Suffolks, H. Noel Gibson, Far Hill, N. J.; Southdowns, J. C. Duncan, Lewiston, N. Y.; Dorset and Short Woolled Grades, R. H. Harding, Thorndale; Long Woolled Grades, Jas. Douglas; Sheep, Carcasses, Geo. Morris, London.

### Swine.

Taken as a whole the exhibit of swine left little to be desired. In numerical strength it was about up to that of several former years, and the quality generally was never better. Yorkshires were out in greater numbers than probably ever before, the exhibitors being, Wm. Murdock, Palmerston; Jos. Featherston & Son, Streetsville; John Duck, Port Credit; A. Stevenson, Atwood; J. E. Brethour & Nephew, Burford, and Matthew Wilson, Fergus.

Berkshires have been out in considerably larger numbers than this year, but were never better in modern type and quality. They were exhibited by J. S. Cowan, Atwood; Sam Dolson & Son, Norval Station; P. J. McEwen, Wyoming, and Adam Thompson, Stratford.

Tamworths were exhibited by D. Douglas & Sons, Mitchell, without competition. Interest at the judging ring was not much in evidence, although the entry was one of exceptional merit.

Chester Whites were exhibited by D. De Coursey, Mitchell, and W. E. Wright & Son, Glanworth; two breeders whose entries have for several years past fought for supremacy at all the leading Ontario shows, and always with well-deserved interest owing to the close decisions their judges have to make.

Any other pure breed was represented by an extensive and high quality exhibit of Hampshires from the herd of Hastings Bros., Crosshill.

Grades or crosses were exhibited by Wm. Murdock, Jos. Featherston & Son, John Duck, A. Stevenson, D. De Coursey, D. Douglas & Sons, Sam Dolson & Son, J. S. Cowan, Pritchard Bros., and D. Lerch, Preston. The awards in the various classes were placed by D. C. Flatt, Hamilton, on Yorkshires and Grades or Crosses; H. B. Jeffs, Bond Head, on Berkshires; J. C. Nichol, Wilton Grove, on Tamworths; J. D. Brien, Ridgetown, on Chester Whites; and S. Dolson, Norval Station, on any other pure-breeds.

**Awards.—YORKSHIRES—Barrow, 6 months and under 9:** 1, Featherston; 2 and 3, Duck; 4, Stevenson. **Barrow under 6 months:** 1, Featherston; 2, Brethour; 3, Stevenson; 4, Wilson. **Sow, 9 months and under 15:** 1, Featherston; 2 and 4, Stevenson; 3, Duck. **Sow, 6 months and under 9:** 1 and 3, Brethour; 2 and 4, Duck. **Sow under 6 months:** 1, Murdock; 2, 3 and 4, Brethour. **Litter of 3:** 1 and 3, Brethour; 2, Duck. **Champion barrow, Featherston; champion sow, Featherston; best barrow and best sow exhibited by an amateur, both went to A. Stevenson.**

**BERKSHIRES.—Barrow, 6 months and under 9:** 1, McEwen; 2, 3 and 4, Dolson. **Barrow under 6 months:** 1 and 2, McEwen; 3, Cowan; 4, Dolson. **Sow, 9 months and under 15:** 1, Dolson; 2, McEwen; 3, Thompson; 4, Cowan. **Sow, 6 months and under 9:** 1 and 3, Thompson; 2, McEwen; 4, Cowan. **Sow under 6 months:** 1 and 2, Cowan; 3 and 4, McEwen. **Litter of 3:** 1 and 3, McEwen; 2, Cowan. **Champion barrow, McEwen; champion sow, Thompson.**

**CHESTER WHITES.—Barrow, 6 months and under 9:** 1 and 3, Wright; 2 and 4, De Coursey. **Barrow under 6 months:** 1 and 2, De Coursey; 3 and 4, Wright. **Sow, 9 months and under 15:** 1 and 3, De Coursey; 2, Wright. **Sow, 6 months and under 9:** 1 and 2, Wright; 3 and 4, De Coursey. **Sow under 6 months:** 1 and 4, De Coursey; 2 and 3, Wright. **Litter of 3:** 1, Wright; 2 and 3, De Coursey. **Champion barrow, Wright; champion sow, De Coursey.**

**GRADES OR CROSSES.—Barrow, 6 months and under 9:** 1, Duck; 2, Dolson; 3, Featherston; 4, Stevenson. **Barrow under 6 months:** 1, Dolson; 2, Douglas; 3, Pritchard Bros.; 4, Murdock. **Sow, 6 months and under 9:** 1, Douglas; 2, Dolson; 3, Featherston; 4, Lerch. **Sow under 6 months:** 1, Cowan; 2, De Coursey; 3, Dolson; 4, Murdock.

**SPECIALS for best barrow of any breed and best sow of any breed, offered by the Caldwell Feed Co., of Dundas, went, on barrow to John Duck, and on sow to Jas. Featherston & Son.**

**SPECIAL from Waterloo County for best bacon hog shown by an amateur, was won by D. Lerch, of Preston; and same special from Lambton County went to P. J. McEwen, of Wyoming.**

**EXPORT BACON HOGS.—The entry in both the pure-bred and grade classes was a large one, and while the quality all through was up to a fair standard, some previous years have seen an all-round better finish and uniformity. Some easy tops very much lightened the task of the judges, D. C. Flatt and J. C. Nichol. The awards for two pure-breeds were: 1, 4, and 8, Brethour; 2, 3 and 9, Duck; 5, Stevenson; 6, Douglas; 7, Murdock; 10, Featherston. Two grades or crosses: 1 and 3, Duck; 2, Brethour; 4 and 6, Cowan; 5, Wilson; 7, Featherston.**

### Poultry.

The Ontario Provincial Winter Fair is the final round-up of poultrymen, particularly for Western Ontario. It is always a strong show, but we are safe in saying that never before has this year's show been equalled. There have been larger numbers, but not so high quality. The entry list comprised this year close to 5,000 birds, and the general average of quality was higher than it has ever been at this or any other exhibition of its kind held in Canada. The most striking feature of the general-purpose classes was the strong exhibit of White Wyandottes, over 200 birds of this class being in the crates. They were the strongest class of the show, and from their number came the champion bird over all breeds and ages, being a cockerel shown by Sid. Saunders, of Ingersoll. He was truly a wonderful bird, but he must have been closely pushed for the highest award by the most phenomenal female of the feathered tribe we have ever been privileged to look upon, this being a Buff Cochinchina from the Holmurst Poultry Yards, Whitby, Ont. She was the biggest, most uniform and best all-round hen we have ever seen. Barred Rocks were as usual a very strong class, both numerically and qualitatively. White Leghorns made off in Rhode Island Reds and Orpingtons. The exhibit of dressed poultry was a feature of the show. While there were very few more entries than a year ago the quality was very markedly in advance of the showing made at that time. Particularly was this true in the cases, pairs, and special classes for untrussed birds, the latter being a new feature at the fair this year. There were approximately 230 entries in dressed poultry alone, 78 being forward in the pairs. The

general quality of the exhibit pleased poultrymen greatly, and credit must be given the Secretary, the Directors representing the poultry interests, and those donating special prizes, for the high quality of the exhibition. It was a good object lesson in dressing and packing fowl, and visitors were shown what a really well-finished bird should look like, and how they should be prepared and packed for market either close by or remote.

To give our readers some idea of the comparative size of the exhibits of the different breeds and classes, we may say that in White Wyandottes there were 44 cocks, 43 hens, 66 cockerels, and 63 pullets; in Barred Rocks there were 39 cocks, 38 hens, 47 cockerels and 52 pullets; in Rose Comb Rhode Island Reds there were 22 cocks, 20 hens, 21 cockerels, and 42 pullets; in single Comb Rhode Island Reds there were 15 cocks, 21 hens, 28 cockerels, 29 pullets; White Rocks were strong with 18 cocks, 22 hens, 23 cockerels and 24 pullets; in single Comb White Leghorns there were 26 cocks, 35 hens, 48 cockerels, 42 pullets, while in Brown Leghorns, single comb, there were 19 cocks, 25 hens, 27 cockerels and 28 pullets; Buff Orpingtons were weak, only 8 cocks, 12 hens, 8 cockerels, and 8 pullets being forward. The black and white varieties of Orpingtons were just a shade stronger numerically than the Buffs. Rose Comb White Leghorns were a weaker class than usual, but Anconas were good, 12 cocks, 15 hens, 20 cockerels, 26 pullets being forward; Minorcas, single combed black, had 18 cocks, 28 hens, 26 cockerels, and 23 pullets, while Andalusians had 40 birds.

All the Asiatic breeds of poultry were well represented and fully up to last year's show.

Turkeys and water fowl made an especially strong exhibit. There were about 80 turkeys in the crates and 56 geese. In Indian Runner Ducks alone there were 54 entries.

Taken all around the poultry breeders were exceedingly well pleased with the outcome of this year's exhibition.

**Judges—H. Schwab, Irondequoit, N. Y.; Geo. Henderson, Hamilton; Jas. A. Tucker, Concord, Mich.; Richard Oak, London; Geo. Robertson, Ottawa; Jos. Bennett, Toronto; Wm. McNeil, London; W. C. Baldwin, Ottawa; L. G. Jarvis, Grimsby; C. F. Wagner, Toronto.**

### Toronto Junction Fat Stock Show.

To demonstrate to producers and shippers of market cattle, sheep and swine, that it pays to breed the kind of stock the market demands, and to give them the best care and feed so as to command the highest price when sold, was the object that actuated the management of the Union Stock Yards at West Toronto and decided them to action in the inauguration of the Toronto Fat Stock Show five years ago, a show that in the short space of five years has far outstripped all competitors in the matter of number of entries, and is already recognized as the final battleground of the year where the finished products from the hand of the master fitters and feeders meet in the last great struggle for supremacy. Stronger, bigger and better than ever before, with an entry showing a better balance of fleshing and quality, was the unanimous opinion voiced by many of the large attendance this year. One thing noticeable in the awards of the judges that would appear to be of more than passing interest to farmers generally, was the marked preference shown to a lighter class of cattle. The trade of to-day does not favor the heavy-weight steer, and excepting for export purposes, he is a thing of the past among Canadian dealers. Another feature of the show that is becoming more popular every year is the Poultry Division, its popularity and interest increasing as the object for which it is held becomes more generally known. It is strictly an amateur show, and is confined to entries of employees of the Stock Yards, the Abattoirs and the Railway employees whose services are in and around the Stock Yards. The show this year was a most creditable one. The entry was larger and the quality high. This feature of the show looks like developing into one of the most important poultry shows of the Province. The total entry this year for competition was, cattle, 1,099; sheep, 722; swine, 850; of single entries in the cattle classes there were 179; of these 37 were pure-breeds and only 7 of them females.

The grade steer "Hector," owned by John Brown & Sons, of Galt, Ont., was the winner of the grand championship, over "Dandy," the pure-bred Shorthorn which was champion at Guelph. "Hector" is a cross-bred steer, bred by John Lowe, of Elora, and was champion butcher's calf at the big National Show held in Toronto in the fall of 1913. His weight is 1,510 lbs., calved January 20th, 1913, sired by "Hundred," a registered Polled Angus bull—dam, a grade Shorthorn cow.

This steers' winnings at the Toronto Fat Stock Show amount to \$120.00, as well as a

\$50.00 gold watch, which was presented by the Toronto World to the herdsman feeding the grand champion steer—in this case John A. Brown, Jr.

This firm of feeders also exhibited a mixed load of pure-bred and grade Shorthorns, which won first in class—"Carload of fifteen steers under 1,250 pounds," also Harris Abattoir Special for "Carload of fifteen steers, without horns, weighing under 1,300 pounds," and Matthews-Blackwell Special for "Ten best steers, without horns, weighing under 1,150 pounds." This lot won prize money amounting to \$700.00, a most unusual showing.

**Awards.**—Grand champion steer, John Brown & Sons, Galt. Pure-bred steer, two years and under three: 1, A. Barber, Guelph; 2, A. A. Armstrong, Fergus; 3, T. A. Russell, Downsview; 4, J. A. Ferguson & Sons, Mapleton. Pure-bred steer, one year and under two: 1, Pritchard Bros., Fergus; 2, Jas. Bowman, Guelph; 3, Duncan Bros., Caledonia; 4, T. A. Russell. Pure-bred steer under one year: 1, A. White, Guelph; 2, Duncan Bros.; 3, Wm. Marquis & Sons, Sunderland; 4, Alex. Young, Mount Hope. Pure-bred fat heifer, two years and under three: 1, John Armstrong, Belgrave. Pure-bred fat heifer, under one year: 1, R. J. Black, Fergus; 2 and 3, David Smith, Carluke. Grade or Cross-bred steer, two years and under three: 1 and 2, T. A. Russell; 3, J. J. Reid, Teeswater; 4 and 5, A. Barber. Grade or Cross-bred steer, one year and under two: 1, John Brown & Sons; 2 and 5, Jas. Leask & Sons, Seagrave; 3, A. White; 4, Kyle Bros., Drumbo. Grade or Cross-bred steer, under one year: 1, R. J. Black; 2, A. A. Armstrong; 3, D. Munroe, Pickering; 4, A. White; 5, H. Wade. Grade or Cross-bred fat cow, three years and over: 1, F. C. Willmott & Son, Milton; 2, M. Thomson, Chesley; 3, B. E. Hicks, Centralia. Grade or Cross-bred fat heifer, two years and under three: 1, H. R. Cross, Beeton; 2, A. White; 3, Kyle Bros.; 4, A. A. Armstrong. Grade or Cross-bred fat heifer, one year and under two: 1, A. White; 2, A. Barber; 3, H. R. Cross; 4, A. White. Grade or Cross-bred fat heifer, under one year: 1, A. White; 2, Jas. Leask & Sons; 3 and 4, Andrew Hicks. Carload fifteen steers, 1,250 lbs. and over: 1, A. Barber, Guelph; 2 and 3, J. D. Ferguson & Sons. Carload fifteen steers, under 1,250 lbs.: 1, John Brown & Son; 2, R. J. Black; 3, J. D. Larkin, Queenston. Special, best carload fifteen steers, without horns, weighing under 1,300 lbs.: 1, John Brown & Son. Special, ten best steers, without horns, weighing 1,150 lbs. or under: 1, John Brown & Son. Special, carload twenty feeder cattle, steers or heifers, without horns, under 1,050 lbs. each: 1, R. J. Black, Fergus; 2, John Hall, London. Carload fifteen heifers, average weight: 1, M. Thomson, Chesley; 2, A. White; 3, R. J. Black. Special, carload fifteen butchers' heifers, without horns, each 1,100 lbs. and under: 1, A. White. Pen of three, wethers or ewes, one year and under two: 1, John Houston, Chatham; 2, J. D. Ferguson & Sons; 3, C. F. Jackson, Port Stanley. Pen of three, wethers or ewes, under one year: 1, J. W. Elliott, Varna; 2, L. Parkinson, Guelph; 3, J. D. Ferguson & Sons. Car lot, fifty fat sheep: 1, John Houston, Chatham. Car lot, fifty lambs, wethers or ewes: 1, J. D. Ferguson & Sons; 2, A. Barber. Farmer's Special: 1, J. D. Ferguson & Sons; 2, Geo. Simpson, Onondago; 3, L. Parkinson. Pen of three wethers or ewes, one year and under two: 1 and 2, J. S. Baker, Burford; 3, J. Lloyd-Jones, Burford. Pen of three wethers or ewes, under one year: 1, J. W. Springsted, Abingdon; 2, D. Ranley, Cainsville; 3, J. D. Ferguson. Car lot, fifty fat sheep: 1, John Houston; 2, J. D. Ferguson & Sons. Car lot, fifty lambs, wethers or ewes: 1, J. D. Ferguson & Sons; 2, C. F. Jackson, Port Stanley; 3, R. Cowan & Brown & Son, Galt. Farmer's Special: 1, J. W. Springsted, Abingdon; 2, J. S. Baker; 3, E. Burt, Paris. Pen, three barrows, bacon type, 170-225 lbs.: 1 and 3, J. K. Featherston, Streetsville; 2, Leo. Chard, Lambton Mills; 4, C. B. Boynton, Dollar. Boys Hog Feeding Competition, pen of three barrows, bacon type, 170-225 lbs.: 1, Geo. Williams, Streetsville; 2, J. A. Goodall, Jr., Belwood; 3, C. B. Boynton, Dollar. Farmer's Special, pen three barrows, bacon type, 170-225 lbs.: 1, J. A. Goodall, Jr.; 2, C. B. Boynton. Special, pen three barrows, 170-225 lbs.: 1, J. K. Featherston. Farmer's Special, pen of ten hogs, bred, fed and owned by exhibitor, 170-225 lbs.: 1, W. B. Harrison, Downsview; 2, J. K. Featherston; 3, J. T. Broad, Pefferlaw. Carload, fifty bacon hogs, 170-225 lbs.: 1, Graham & Merrick, Pefferlaw; 2, D. H. Jones, Elora; 3, W. Revington, Lucan; 4, H. Wade, Pickering. Carload, fifty bacon hogs, average 170-225: 1, Graham & Merrick. Special, carload fifty bacon hogs, 160-190 lbs., individual weights: 1, Graham & Merrick. Special, carload fifty bacon hogs, 170-200 lbs., individual weights: 1, Graham & Merrick.

At the sale of fat stock exhibited at the Toronto Junction Show, Hector, the winning steer, was bought by the T. Eaton Co., at 25 cents per lb., others sold at from \$12.50 to \$16.00 per cwt.

### The Maritime Winter Fair.

The fourteenth annual Maritime Winter Fair was held in Amherst on Dec. 7, 8, 9 and 10, and was a great success. In many respects the exhibits were superior to any former show.

The Dairy Test has always been a strong feature of the Maritime Fair, but this year's show was far ahead of any former exhibit. There were ninety-nine cows in the test, and scarcely any in the lot but what a dairyman would be proud to own. Samuel Dickey & Sons, of Onslow, N. S., are justly proud of their Holstein cow "Miss Sa Handa," a cow of their own breeding and a typical Holstein in form; her yield of milk in the three days was 273.8 lbs., containing 10.51 lbs. of fat, making a score of 332.57 points, which beats the world's records of three day tests by about 16 points. The great achievement of this cow makes all Maritime Province dairymen proud of her, and shows the world that we have not been wrong in claiming that the provinces by the sea are well suited for successful dairying, and that we are getting some of the best stock that money can buy. Messrs. Dickey also won first on three-year-olds and championship for best three-year-old of any breed on "Cobequid Polly Lass" with 195.8 lbs. milk, 7.10 lbs. fat, and a score of 227.58.

Wm. Harding, of Welsford, N. B., showed four young Holsteins, all of which are good workers, winning third on three-year-old cow, and second, third and fourth on yearlings.

T. W. Kellor, of Amherst Pt., N. S., showed one Holstein three-year-old and a fine lot of grade Holsteins, and won first on grade cow in the aged cow class, making 250.6 lbs. milk, 6.83 lbs. fat, total score 228.20; and also second in the same class, there being only three one-hundredths of a point between the first and second prize cows. Courtney Susby, of West Amherst, a young man and a new exhibitor, showed a good large two-year-old grade Holstein, and won fourth in a hard class; second and third in this class were won by W. N. Boomer on Holstein heifers. Lee & Clarke, of Victoria, P. E. I., showed three Holsteins, all of which are good workers. R. S. Hicks, of Delhouse Jct., N. B., has four young Holsteins, winning third on three-year-old, and second, third and fourth on yearlings. Stanley A. Logan, of Amherst Pt., showed two Holstein cows and two yearlings, winning first and third on yearlings; the first yearling making 162.4 lbs. milk, 5.44 lbs. fat, and a score of 175.3 points.

Guernseys were shown by H. A. Dixon, of Onslow, and D. G. McKay & Son, of Scotsburn. Dixon winning third on cow, first on yearling with 83.9 lbs. milk, 3.58 lbs. fat and a score of 112.09 points; first on two-year-old Guernsey with 126.2 lbs. milk, 6.6 lbs. fat and a score of 184.53, also third on Guernsey cow and first on grade two-year-old, with a high-grade Guernsey making 112.7 lbs. milk, 4.84 lbs. fat, and a score of 151.6 points.

D. G. McKay & Son, of Scotsburn, N. S., showed five Guernseys, and won first in the aged cow class on "Ruby," making 143.7 lbs. milk, 7.3 lbs. fat and a score of 214.15 points; also winning second in this class on "Flora's Heiress." Messrs. McKay also won first in the three-year-old class with "Rosie," making 120.8 lbs. milk, 4.98 lbs. fat and scoring 156.78 points.

H. S. Pipes & Son, of Amherst, showed a beautiful string of fourteen Jerseys, most of which were winners at the fall shows, thus demonstrating the fact that a typical Jersey can be a producer. J. E. Baker & Son, of Barronsfield, N. S., won first on aged Jersey cows, making 107.6 lbs. milk, 5.86 lbs. fat and scoring 174.42 points, also first on three-year-olds, making 103.8 lbs. milk, 5.14 lbs. fat and scoring 156.88 points, and first on two-year-old Jersey, making 98.8 lbs. milk, 4.92 lbs. fat and scoring 151.5 points. J. R. Semple, of Brule, N. S., showed two grades and three Jerseys, winning first on yearling grade making 67.5 lbs. milk, 3.82 lbs. fat and scoring 114.4 points. Mr. Semple also won three second prizes on his Jerseys.

A. McRae & Sons, of Charlettetown, P. E. I., showed a fine string of Ayrshires, most of which were prize winners at the fall shows, and the cow that won first place in the test as a three-year-old was also first in her class at St. John and female Ayrshire, champion at Charlettetown. She made in this test 144 lbs. milk, 5.84 lbs. fat, scoring 188.8 points. McRae also won first on two-year-old, making 104 lbs. milk, 4.57 lbs. fat and scoring 141.67.

John Retson, of Truro, N. S., showed an aged cow and a two-year-old of the good, deep-bodied, heavy-milking kind; George Retson, of Brookside, N. S., an aged cow, a two-year-old, and a three-year-old, all of which made good records. McIntyre Bros., of Sussex, N. B., won first on aged cow, with "Mona D." making 163.8 lbs. milk, 6.5 lbs. fat, and scoring 205.86, and first on yearling making 98 lbs. milk, 3.67 lbs. fat and scoring 117.43.

Shorthorns were shown by J. McCully Pipes, Nappan; Alfred Johnson, Truro; Geo. M. Holmes, Amherst; Arthur Etter, Westmorland Point, and Charles Etter, of Westmorland Point.

In the beef cattle class the exhibits were superior to last year, both in number and quality. Forrest Bros., of Amherst Point, showed a fine row of Herefords, Shorthorns and grades that were a credit to any stockman and were brought out in good condition. In the class for Herefords, Polled Angus and Galloways, Forrest Bros. won the majority of the red ribbons, dividing honors with J. M. Laird & Son, of Kelvin Grove, P. E. I., who showed a really good lot of Polled Angus, low-set, thick-fleshed and brought out in splendid fit. In aged cows Laird won first and third, Forrest second and fourth; in two-year-olds Forrest won first and third, Laird second; in senior yearling the order was the same, and in junior yearling heifer Laird won first and second. In the grades of any breed Forrests won a large share of the prizes.

Shorthorns were shown by Harold Etter, Hazen Etter, C. H. Angus, of Carrington, N. S.; R. A. Snowball, Chatham, N. B.; Geo. M. Holmes, Amherst; Demont Freeman, Amherst, and Geo. A. Black, of Westmorland Point. The sweepstakes for best Shorthorn any age went to R. A. Snowball, on a beautiful roan two-year-old heifer, with Harold Etter's cow a good second. Harold Etter showed seven Shorthorns, two Herefords and three grades, and won first on aged Shorthorn cow, first on senior yearling heifer, and second and third on two-year-old heifer.

Arthur Etter and Hazen Etter, of Westmorland Point, were among the exhibitors of grade beef cattle, and carried away a goodly number of the red ribbons and the special given by the Shorthorn Breeders' Association for the best steer sired by a Shorthorn bull.

Edward Anderson, of Sackville, N. B., showed Herefords and grades, and had some really good stock. Geo. A. Black, of Westmorland Point, a beginner, showed a good Shorthorn cow and a junior yearling.

The show of sheep was ahead of last year, both in numbers and quality. The principal exhibitors were I. J. Stewart, of Amherst Point, with Shropshires and grades, winning a big share of the ribbons and the specials for best four lambs, the N. B. Fence Co's. special for best four wethers, and the Royal Bank special for best lamb, shearing and two-year-old ewe. J. E. Baker & Sons showed a fine flock of Oxford, and a few good Southdowns. George Boswell, of P. E. I., showed Shropshires and grades; C. W. Pugsley, of Barronsfield, showed Lincolns, some extra good ones, and brought out in good condition. Oliver Saunders, P. E. I., showed Southdowns; Albert Boswell, of P. E. I., showed a splendid flock of Leicesters brought out in very good form.

The show of hogs was, from a bacon hog standpoint, the best ever put on in the Maritime Provinces; most of the classes were well filled and required the greatest care on the part of the judge to determine where the awards should be placed. A large proportion of the entries were from P. E. I., though J. R. Semple, Brule; J. I. Stewart, Amherst Point; the Messrs. Etter, of Westmorland Point, and others gave their Island competitors all the competition they wanted in some of the classes. The dressed competition was not quite as large as former years, but the quality, especially of the hog carcasses, was the best ever shown.

The show of poultry was immense, there being about two thousand birds of all classes. Wyandottes and Plymouth Rocks predominated, but there was a large show of Leghorns, Dorkings and Rhode Island Reds. The show of ducks, geese and turkeys was fully up to former years, and the display of dressed poultry, while not up to the last two years, made an interesting part of the show.

The exhibit of the Department of Agriculture, showing the right and wrong way of candling and marketing eggs, added to the interest of the show, and gave a good deal of valuable information to exhibitors and spectators.

The exhibit of seed grains and potatoes was very much larger and better than ever before. The past season was a good one for Maritime farmers, and the quality of the grain showed it.

The display of fruit was not quite so large as in former years, but the quality of what was shown was extra good.

The wool exhibit put on by the Department of Agriculture was interesting and instructive.

The evening addresses were of high order, especially those of Dr. C. C. James and Prof. Cumming.

The attendance from outside points was better than ever, but that of the people of the town of Amherst was not quite so large as usual, and although the weather was generally fine and the roads good the total attendance was rather below that of some former shows. C. H. B.

The grain exhibit at Guelph was one of the best ever seen at the Fair. Space does not permit of a resume of the classes this week, but a full account will be given next week in our Farm Department.

# Toronto, Montreal, Buffalo, and Other Leading Markets.

## Toronto.

Receipts at Union Stock-yards, West Toronto, on Monday, Dec. 14, were 176 cars, comprising 3,789 cattle, 911 hogs, 788 sheep and lambs, 229 calves, and 38 horses. The supply of cattle was far greater than the demand, and prices were fully 25 cents per cwt. lower. Choice steers, \$8 to \$8.50; good, \$7.75 to \$8; medium, \$6.50 to \$6.75; choice cows, \$6.50 to \$6.75; good cows, \$6.25 to \$6.50; canners and cutters, \$3 to \$4.50; bulls, \$5 to \$7; stockers, \$4 to \$5.25; feeders, \$5.75 to \$6.50; milkers, \$65 to \$95; veal calves, \$4 to \$10. Sheep, \$5 to \$6; lambs, \$7 to \$8.25. Hogs, \$6.90 f. o. b. cars at country points; \$7.25 fed and watered, and \$7.50 weighed off cars.

### REVIEW OF LAST WEEK'S MARKETS

The total receipts of live stock at the City and Union Stock-yards for the past week were:

	City.	Union.	Total.
Cars	85	656	741
Cattle	1,022	9,325	10,347
Hogs	1,250	13,734	14,984
Sheep	1,365	6,986	8,351
Calves	32	568	600
Horses	—	19	19

The total receipts of live stock at the two markets for the corresponding week of 1913 were:

	City.	Union.	Total.
Cars	25	508	533
Cattle	436	7,989	8,425
Hogs	73	7,957	8,030
Sheep	522	4,874	5,396
Calves	24	555	579
Horses	59	11	70

The combined receipts of live stock at the two markets for the past week show an increase of 208 carloads, 1,922 cattle, 6,954 hogs, 2,955 sheep and lambs, and 21 calves, but a decrease of 51 horses, compared with the corresponding week of 1913.

Receipts of live stock outside of those exhibited at the Fat-stock Show were again liberal. The quality of the cattle was much the same as it has been for several weeks past, a few good to choice, with the bulk composed of medium, half-fat steers and heifers, and canner cows and bulls. Trade as a rule was active for anything choice in butchers' steers and heifers, as well as the canner cows and bulls, but slow for the medium and common steers and heifers offered in the butchers' classes. One choice load of steers weighing about 1,050 lbs., sold at \$8.75, but they were the best seen here in many weeks. In all other classes of live stock there was an active trade, at steady prices, excepting hogs, which sold at lower values.

Butchers' Cattle.—Prime steers, \$8.50 to \$8.75; choice steers and heifers, \$8 to \$8.40; good steers and heifers, \$7.75 to \$8; medium, \$7 to \$7.75; common, \$6.50 to \$6.75; common light steers and heifers, \$5.75 to \$6.25; choice cows, \$6.75 to \$7.25; good cows, \$6.25 to \$6.50; medium cows, \$5.50 to \$6; canners and cutters, \$3.75 to \$4.65; bulls, \$5 to \$7.25, and a few of prime quality at \$7.40 to \$7.70.

Stockers and Feeders.—The demand for stockers and feeders, which was moderate, was not greater than the supply, and prices remained steady. Good to choice steers, \$6.25 to \$6.50; medium steers, \$5.75 to \$6.25; stockers sold from \$4 up to \$5.50.

Milkers and Springers.—There was a steady demand for choice fresh cows and forward springers, at \$65 to \$107 each, the bulk of these selling from \$70 to \$90 each. Late springers sold from \$40 to \$55 each.

Veal Calves.—Receipts of calves were light, but prices remained steady. Choice veals sold from \$9 to \$10; good at \$8 to \$9; medium, \$7 to \$8; common, \$6 to \$7; inferior, Eastern, grass calves, \$4 to \$5.50.

Sheep and Lambs.—Receipts were fairly large. Sheep, light ewes, \$5 to \$6; heavy ewes and rams, \$3.50 to \$4; cull sheep, \$2 to \$3; lambs sold all the way from \$7 to \$8.75. Choice Southdown and Shropshire lambs, 80 to 90 lbs. each, sold from \$8 to \$8.75; heavy lambs, from \$7 to \$7.75, and slow sale at these latter prices; cull lambs, \$5.50 to \$6.50.

Hogs.—Prices were lower, and ruled

steadily, at \$7.50 weighed off cars; \$7.25 fed and watered, and \$6.90 to drovers f. o. b. cars at country points.

### TORONTO HORSE MARKET.

There is little or no demand for horses excepting for war purposes, and so exacting are they in regard to inspection that many are rejected. Those selected and bought ranged in price from \$145 to \$190 each.

### BREADSTUFFS.

Wheat.—Ontario, No. 2, \$1.10 to \$1.12, outside; Manitoba, at bay ports, No. 1 northern, \$1.24; No. 2, \$1.21; No. 3 northern, \$1.16, new crop.

Oats.—Ontario, No. 2 new, white, 50c. to 51c., outside; Canadian Western oats, N. 2 new, 60c.; No. 3 new, 58c., track, bay ports.

Rye.—88c., outside.

Buckwheat.—71c. to 73c., outside.

Barley.—Ontario, No. 2, 68c. to 70c., outside. Manitoba barley, 66c. to 70c., lake ports.

Corn.—No. 2 yellow, old, 81c.; new No. 3 yellow, 71c.; Canadian corn, 82c., Toronto.

Peas.—No. 3, \$1.60 to \$1.65, car lots, outside.

Rolled Oats.—Per bag of 90 lbs., \$3.10 to \$3.25.

Flour.—Ontario winter wheat, 90 per cent., \$4.70 to \$4.75, seaboard, Montreal or Toronto freights. Manitoba flour.—Prices at Toronto were: First patents, \$6.70 in cotton, and \$6.60 in jute; strong bakers', in cotton, \$6.20; in jute, \$6.10.

### HAY AND MILLFEED.

Hay.—Baled, car lots, track, Toronto, No. 1, \$16 to \$17; No. 2, \$13.50 to \$14.50.

Straw.—Baled, car lots, \$7.50 to \$8. Bran.—Manitoba, \$25 to \$26, in bags, track, Toronto; shorts, \$27 to \$28; middlings, \$29 to \$30.

### COUNTRY PRODUCE.

Butter.—Receipts have remained about steady; prices steady. Creamery prints, 28c. to 31c.; creamery solids, 28c. to 29c.; separator dairy, 27c. to 28c. Cheese.—New, 16c. for large, and 16c. for twins.

Eggs.—New-laid, 50c. per dozen, by the case; cold-storage eggs, 28c. to 29c.

Honey.—Extracted, 11c. to 12c. per lb.; combs, per dozen sections, \$2.50 to \$3.

Beans.—Primes, \$2.75 to \$2.80; hand-picked, \$2.90 to \$3.

Potatoes.—Canadian, car lots, per bag, track, Toronto, 60c. to 65c.; New Brun-

wicks, 70c. to 75c. per bag, track, Toronto.

Poultry.—Live-weight prices: Turkeys, 12c.; ducks, 10c.; hens, 7c. to 10c. per lb.; spring chickens, 8c. to 11c.; geese, 8c. per lb.

## Montreal.

The quality of stock was not choice, but the best stock on the market sold at 7c. per lb., this being for steers; good sold at 6½c., and medium at 5½c. to 6c., while common steers sold down to 5c. Cows ranged generally from 4½c. to 6½c. per lb., and bulls from 4½c. to 5½c. Canners cattle sold as low as 3½c. per lb. Lambs were scarce, and prices slightly higher. Best Ontario stock sold at 8c. per lb., while Quebec stock ranged from 7c. to 7½c., with occasionally slightly more. Sheep were 4½c. to 5c. The market for calves was fairly firm, at \$3 to \$6 for common, and up to \$15 each for best. The tone of the hog market was firm, and selects sold at 7½c. to 7½c. per lb., with heavies at 7½c., weighed off cars.

Horses.—Good general-purpose horses sold at about \$150 to \$175 each. Dealers quoted heavy draft horses weighing from 1,500 to 1,700 lbs., at \$225 to \$300 each; light draft, weighing from 1,400 to 1,500 lbs., at \$150 to \$200 each, and lighter horses from \$125 to \$150. Broken-down, old animals were quoted at \$75 to \$100 each, and fancy saddle and carriage animals at \$300 to \$400 each.

Dressed Hogs.—The market for dressed hogs was slightly firmer all round. Abattoir-dressed, fresh-killed hogs were quoted at 10½c. to 10½c. per lb. Country-dressed were firmer also, at 9c. to 9½c. for heavyweights, and 9½c. to 10c. for light.

Poultry.—Receipts of poultry have been held off somewhat lately on account of the decline of a couple of weeks ago. Supplies were moderate, and prices continued about the same. Quotations were 14c. to 15c. for turkeys; 12c. to 15c. for chickens; 11c. to 14c. for ducks, and 9c. to 11c. for geese and old fowl.

Potatoes.—The market was rather on the easy side, but prices were much the same as last week. Choice Green Mountains were quoted at 60c. per bag, carloads, ex track, single bags being 70c. to 75c.

Honey and Syrup.—Prices showed no change, and demand was light. Maple syrup was quoted at 60c. in small tins, and up to 80c. in 11-lb. tins. Sugar

## A Christmas Passbook

Makes a most acceptable gift to anyone—relative or friend. Everyone likes a Savings Bank Account.

Call in with a deposit of one dollar or more, or send it by mail, and we will open an account in the name of the party desired and furnish you with the passbook.

Don't forget, a Huron & Erie Passbook for Christmas—it starts the saving habit.

## The Huron & Erie Loan and Savings Company

Incorporated 1864

Main Office: 442 Richmond Street, London  
Market Office: 4-5 Market Square, London

T. G. MEREDITH, K.C.  
President

HUME CRONYN  
General Manager

was 9c. to 10c. per lb. White-clove comb honey was 16½c. to 17½c. per lb. extracted, 12c. to 13c.; dark comb, 14½c. to 15c., and strained, 7c. to 8c. per lb.

Eggs.—Best eggs were quoted at 48c. to 50c. per dozen, but these were only nominally new laid. Selected cold-storage stock were quoted at 31c. to 32c. per dozen. No. 1 cold-storage stock were firm, at 29c. to 30c., and No. 2 25c. to 26c. per dozen.

Butter.—The market for creamery was about steady, and dealers look for no change just now. Choice stock was quoted at 27c. to 27½c. per lb. here, while fine was 26½c. to 27c., and seconds 25½c. to 26c. Ontario dairy was 25c. to 26c. per lb., and Manitoba 24c. to 25c.

Cheese.—No change has taken place in the cheese market. September Ontario cheese still sold at 15½c. to 15½c. per lb. for either white or colored, and October makes were ½c. below these figures. September Eastern cheese was 15½c. to 15½c., and October a fraction under.

Grain.—Oats were in good demand. Canadian Western were quoted at 60½c. for No. 2; 59c. for No. 3; 58½c. for No. 1 feed, and 57½c. for No. 2 feed, ex store. Ontario and Quebec No. 2 white oats were 54c. per bushel; No. 3 were 53c., and No. 4 were 52c. Argentine corn was 83½c. to 84c.

Flour.—Demand for flour was fairly active, and prices were unchanged. Ontario patents were \$6 per barrel in wood, and straight rollers were \$5.50 to \$5.60, bags being \$2.70. Manitoba first patents were \$6.70; seconds being \$6.20, and strong bakers' \$6 in jute.

Millfeed.—The market showed no change last week, but the tone was firm. Bran was \$25 per ton in bags; shorts, \$27; middlings, \$30, including bags. Mouille sold at \$35 to \$36 per ton for pure, and \$31 to \$32 for mixed.

Hay.—There was a fair demand for hay at steady prices. No. 1 pressed hay Montreal, ex track, \$20.50 to \$21 per ton; No. 2 extra, \$19.50 to \$20, and No. 2, \$18.50 to \$19.

Hides.—Beef hides were unchanged, at 16c., 17c. and 18c. for Nos. 3, 2 and 1, respectively. Calf skins were 16c. and 18c. for Nos. 2 and 1 respectively. Sheep skins were \$1.20 each and horse hides, \$1.50 for No. 2, and \$2.50 each for No. 1. Tallow was 6c per lb. for refined, and 2c. to 2½c. for crude.

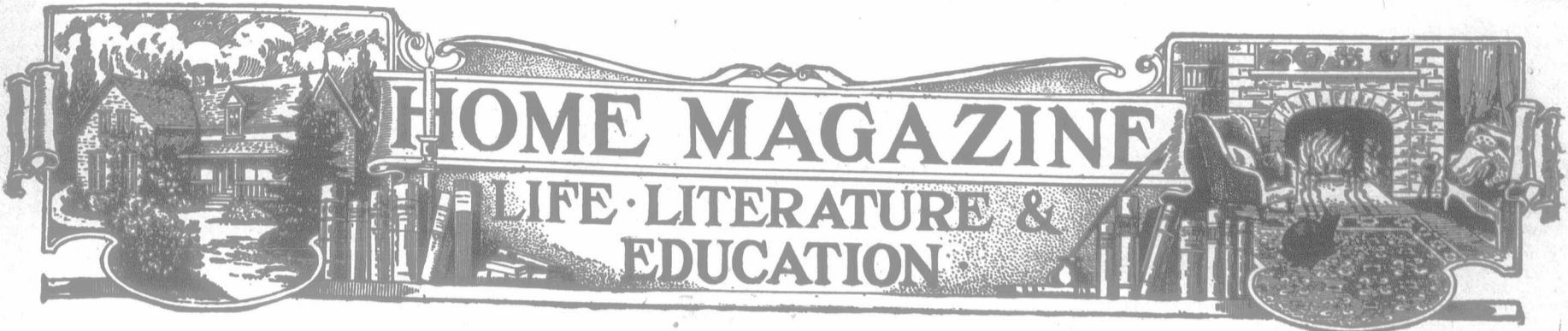
## Buffalo.

The past week the best Canadian shipping steers sold from \$8.85 to \$9, a good kind from \$8.50 to \$8.60, with plain and less desirables from \$7.50 to \$7.85. Few handy butchering steers were good enough to bring \$8, and ranged the best handy heifers offered ranged from \$6.85 to \$7.50. Heavy, fat cows, which have been bringing from \$6 to \$6.50, are down to \$5.75. Receipts for the past week were 5,030 head, as against 4,125 for the previous week, and 6,375 for the corresponding week a year ago. Quotations.—Canadian shipping steers—Choice to prime, \$8.75 to \$9; fair to good, \$8.25 to \$8.60. Butchering steers—Choice, heavy, \$8.25 to \$8.50; fair to good, \$7.75 to \$8; yearlings, \$9 to \$9. Cows and heifers—Prime weighty heifers, \$7.75 to \$8; best handy butcher heifers, \$7.25 to \$7.50; common to good, \$6 to \$7; best heavy fat cows, \$6.50 to \$7; good butchering cows, \$5.75 to \$6.25; medium to good, \$4.75 to \$5.50. Cutters, \$4 to \$4.25; canners, fair to best, \$3.50 to \$3.80. Bulls—Best heavy, \$7 to \$7.25; good butchering, \$6.25 to \$6.75.

Week started with an \$8.25 market for Western and Canadian hogs, and before the week was out, prices on Westerns dropped to \$7.40, with Canadas selling at \$7.35. Two loads of Winnipeg pigs sold Thursday at \$7.55, and a load out of this section went Friday at \$7.50. Two decks of Canadian hogs went to the quarantine division Friday to enable a buyer, whose plant did not have Federal inspection, to use them, and they sold up to \$7.80. Roughs the latter part of week ranged from \$6.25 to \$6.40, and stags, \$5.50 to \$6.

See the advertisement in this issue of the Southern Counties Ayrshire Club sale to be held at Ingersoll Dec. 30

DECEM  
By A  
The anc  
Is sown  
Ingarnere  
The Ma  
The shrap  
Where p  
The air-sh  
But—af  
Athwart  
Silent t  
And from  
There fo  
While dow  
The vict  
Nor heed  
But—af  
By night  
Like mu  
The rocki  
The sulk  
And shatt  
The vest  
And every  
But—af  
And all th  
Are burli  
The thing  
Beneath  
Again the  
Again hi  
Across a  
But—af  
The grim  
The quic  
The honor  
The sac  
These be c  
Till the  
And, with  
We mark  
House  
deni  
WHAT EA  
TOWARD  
PE  
An Instit  
Ottawa wh  
effect upon  
district, an  
fluence, gr  
of rural l  
even the I  
the organ  
growing a  
third year  
brought to  
ber 21, w  
at a public  
The work  
County of  
experience,  
of Russell,  
the city  
over all  
those who  
viding the  
decided to  
competition  
as anybody  
the matter  
so simple  
petition an  
in girls the  
is not eno  
come farm  
keepers ra  
long consi  
plan after  
evolved wh  
pletely suc  
The girls  
more ambi



Prospice.

By Alan Sullivan, in the Globe.

The ancient and the lovely land  
Is sown with death; across the plain  
Ungarnered now the orchards stand,  
The Maxim nestles in the grain.  
The shrapnel spreads a stinging flail  
Where pallid nuns the cloister tread,  
The air-ship spills her leaden hail;  
But—after all the battles—God.

Athwart the vineyard's ordered banks,  
Silent the red-rot forms recline,  
And from their stark and speechless ranks  
There flows a richer, ruddier wine;  
While down the lane and through the wall  
The victors writhe upon the sod,  
Nor heed the onward bugle-call;  
But—after all the bugles—God.

By night the blazing cities flare  
Like mushroom torches in the sky;  
The rocking ramparts tremble ere  
The sullen cannon boom reply,  
And shattered is the temple-spire,  
The vestment trampled on the clod,  
And every altar black with fire;  
But—after all the altars—God.

And all the prizes we have won  
Are buried in a deadly dust;  
The things we set our hearts upon  
Beneath the stricken earth are thrust;  
Again the Savage greets the sun,  
Again his feet, with fury shod,  
Across a world in anguish run;  
But—after all the anguish—God.

The grim campaign, the gun, the sword,  
The quick volcano from the sea,  
The honor that reveres the word,  
The sacrifice, the agony—  
These be our heritage and pride,  
Till the last despot kiss the rod,  
And, with man's freedom purified,  
We mark—behind our triumph—God.

Housekeeping and Gardening Competitions for Girls.

WHAT EASTERN ONTARIO IS DOING TOWARDS HELPING THE YOUNG PEOPLE TO BE MORE EFFICIENT.

By A. C. Campbell.

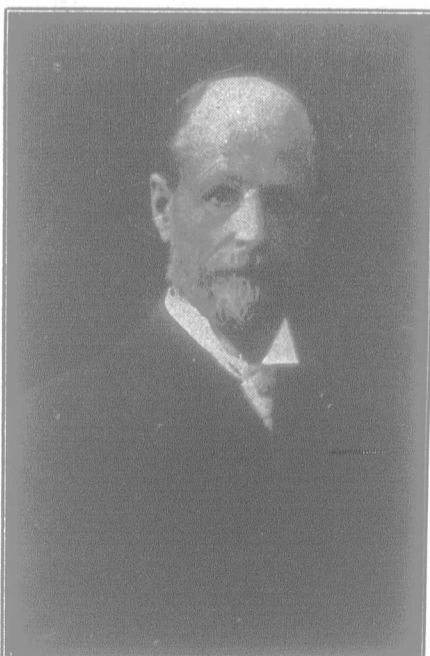
An institution has been growing up in Ottawa which is certain to have a great effect upon agricultural practice in the district, and may, by example and influence, greatly improve the conditions of rural life throughout Ontario, and even the Dominion at large. This is the organized competition in potato-growing among the farm boys. The third year of this competition was brought to a close on Saturday, November 21, with the distribution of prizes at a public meeting in Ottawa City Hall.

The work was at first confined to the County of Carleton, but, after one year's experience, was extended to the County of Russell, within whose limits part of the city of Ottawa lies. The results over all have been so satisfactory to those who are doing the work and providing the money, that it has now been decided to adapt the idea to provide a competition amongst farm girls. This, as anybody can see who will consider the matter for a moment, is by no means so simple as the potato-growing competition among the boys. To cultivate in girls the ability to carry on a garden is not enough, for, when these girls become farmers' wives they will be housekeepers rather than gardeners. After long consideration, and the rejection of plan after plan, a scheme has been evolved which, it is hoped, will be completely successful.

The girls' competition will be a far more ambitious institution than the ex-

isting competition amongst the boys. In the first place, it will cover not merely one year, but a three-year period. In the second place, it will involve competitions in both gardening and house-keeping. In the third place, it will form a part of the educational system in the rural schools of the county, and prizes will be given, not to scholars only, but to the schools they represent. This work may make Carleton County the leader in the rapidly-developing work of teaching agriculture and horticulture in the schools.

This series of competitions has been made possible primarily by the generosity and public spirit of one man, Mr. R. B. Whyte. Mr. Whyte is known to horticulturists not only in Canada, but throughout America, as one who has given a life-time to the science and art of gardening, and who, in his own specialties, is among the most eminent authorities. Not only does he manage a garden which is one of the show places of Ottawa, but he has made most successful and useful experiments in the propagation of small fruits, espe-



Mr. R. B. Whyte, Ottawa.

A horticulturist known throughout America, and a friend of the boys and girls.

cially raspberries and gooseberries. He is the founder and active head of the Children's Flower Guild of Ottawa, an educational movement of the very highest value. All the money needed for the boys' and girls' competitions has been and will be supplied by Mr. Whyte. The prizes alone will amount to over \$200 a year. Printing and other expenses also represent a considerable sum. Having retired from business after a successful career as a wholesale merchant, Mr. Whyte is proceeding to enjoy himself by giving his money, his experience and his energy, which is as great as ever, to helping the coming generation to an understanding and love of the rural life, which is at the base of Canada's prosperity.

Working by himself, however, Mr. Whyte could not have succeeded in accomplishing what has thus far been accomplished. He has the advantage of residing in the Capital City of the Dominion. The Federal Department of Agriculture has collected in its offices and on the Central Experimental Farm, many of the most eminent specialists on farm subjects to eminent specialists in the world. Each of these has become a specialist by being first an enthusiast, and both personal enthusiasm and official duty incline them

to help in any reasonable way every movement that gives promise of aiding in the development of Canadian agriculture. The Provincial Government also, through its Departments of Education and Agriculture, is glad to assist in such work. In the potato-growing competitions, Mr. Whyte has had the ablest possible assistance. The Secretary of the movement is Mr. L. H. Newman, one of the leading officials of the Dominion Department of Agriculture and Secretary of the officially-recognized Canadian Seed-growers' Association. Mr. Newman is not only a specialist in the biology of seeds, but also an administrator of rare capacity. Realizing from the first the possibilities of the competitions, he has given time and effort unstintedly to the laborious details of correspondence and compilation. Professor W. T. Macoun, Dominion Horticulturist, who has given years of study in field and library to the growing of potatoes, is another member of the committee. At the beginning of the competitions he prepared a bulletin into which was condensed all the practical knowledge about growing potatoes in the Ottawa district which has been accumulated. The results attained in the competitions go to show that if the farmers of Ontario generally were to pay as close attention to Professor Macoun's advice as do the competitors for Mr. Whyte's prizes, the potato crop of the Province would be at least doubled. Another member of the committee is Mr. W. D. Jackson, representative in the County of Carleton of the Ontario Department of Agriculture. Mr. Jackson is a young man, and live. It is his business to come in contact with the farmers and to extend to them the benefits of the knowledge and experience in agriculture of the Province as a whole. The potato-growing competition he regards as an opportunity for better and wider work in his own proper line. His work in advising and encouraging the young competitors has been invaluable.

It is a noteworthy fact that some of the boys who entered the competition for the first year are in it still, while others are now barred by age, eighteen years being the limit. Mr. T. G. Raynor, of the Dominion Department of Agriculture, who has judged all the boys' exhibits at the county fairs—the showing of one bushel of the competitor's own crop being one feature of the competition—says that there is a distinct improvement in the results achieved by these young farmers in growing potatoes. Not only is the product large in proportion to the average of the Province, and not only are practically all the potatoes free from disease, but the competitors are showing a wiser understanding of the demands of the market, and so the potatoes tend to grow more uniform in size, shape, color, and quality.

The only suggestion of dissatisfaction with this whole competition comes from those who are most directly responsible for it, Mr. Whyte and his colleagues. They are disturbed in mind because so few boys enter. Last year only sixteen boys from Carleton, and only fifteen from Russell, carried the contest through to a finish, while this year the numbers were fifteen and thirteen, respectively. Considering that these counties together have a population of about seventy thousand, with a larger proportion of farmers than in the average Ontario county, and considering the advantages offered to the boys in this competition, it certainly does seem strange that less than thirty boys between twelve and eighteen years of age are found willing to comply with the terms laid down. The only explanation attempted so far is that the farmers of the counties are unwilling to allow their sons to take one-tenth acre of ground and the time needed for its proper cultivation. But this explanation also

needs to be explained—assuming it to be correct. The experience is that the boys in this competition, with any kind of luck, are able to raise more potatoes on one-tenth acre than the average farm raises on a quarter-acre. So, there need be no waste of land. And, as the boy has his crop anyhow, and runs a chance of gaining a prize of anywhere from \$15 to \$4, besides a silver medal, any refusal of co-operation on the part of parents seem a good deal like a refusal to buy dollar bills at fifty cents apiece.

Notwithstanding the small number of competitors, and regardless of what may be the cause of the existing condition, the potato competitions have been a magnificent success. And they grow more successful and useful every year, for, with the careful and elaborate records kept by Secretary Newman, the committee is accumulating a body of facts with regard to the cultivation of potatoes, and the still more important cultivation of boys that will be of inestimable value in many ways.

There is a marked tendency for this work to spread. The literature of the competition is often asked for by those who realize the possibilities of the work, and desire to carry it on in their own localities. This will be much more easily done a year or two later when the experience marks out more definitely the exact lines that should be followed. Several of the Provinces of the Dominion have under consideration the inauguration of competitions in every county or district.

Modern Warfare.

Everyone is reading war news, but it is safe to say that a considerable proportion of those who read, through lack of understanding modern systems of fighting, fail to grasp a very clear mental perception of the battlefield of to-day. Old conceptions gained through study of the history of the past, die hard, and, before the mind's eye, solid formations, "hollow squares," and brilliant charges loom large as characteristics of every engagement. As a matter of fact, these are comparatively seldom resorted to in modern warfare, and the uninitiated on-looker of a battlefield to-day would likely be much surprised to see a comparatively deserted area, to all appearance, from which even the smoke has been largely eliminated by the use of smokeless powder. In case of emergency there may be still the desperate onrush, when men run forward in long, thin lines, making use of every moment between fires to run, then lying down to shoot, then up and on again, but more generally the soldiers fight from burrows varying from the shallow rifle-pit hastily thrown out in half an hour, and in which a man can only lie down, to the deeper one in which he can stand, and which has taken three or four hours or more to construct—"the trenches," sometimes protected by sandbags, which afford a harborage for the men for such time as they hold, or wish to hold, a locality.

Above the trenches during action sounds the whistle of rifle balls from a mile or more away, the heavier whirring of cannon balls from a distance of fifteen to eighteen miles, and the shriek of shrapnel, this last one of the agents of destruction most dreaded. Shrapnel, by the way, was invented by a British army officer of that name, and consists of shells filled with bullets and supplied with a small charge inside which will cause them to burst at any time, sending a shower of leaden rain on all sides.

Modern fighting, it appears then, must be waged largely against machines, machines dealing their missiles often the soldier knows not whence.

It was Napoleon who said, was it not? that "God is on the side of the heaviest battalions." To-day, were he alive, he might affirm, with his fine irony, that "God is on the side of the forces possessing the most advanced weapons, the most powerful and insidious contrivances for the wholesale murder of men."

Among these, in field warfare, the machine-gun holds a place, high from a military point of view. In "The Human Slaughterhouse," by Lamszus, one of the most striking passages deals with the working of one of these instruments. "Two hundred and forty bullets and more to the minute! What a marvel of mechanism one of these machine-guns is. You set it buzzing and it spurts out bullets thicker than rain can fall, and the automaton licks its lips hungrily and sweeps from right to left. It is pointed on the middle of the body, and sprays the whole firing-line with one sweep. It is as though Death had scrapped his scythe for old iron; as if nowadays he had graduated an expert mechanic."—Such the machine-gun, which turns on a swivel to send its deadly hail over the largest area possible, some kinds of which are small enough to be easily carried, in parts, usually by automobile or motor-cycle, and are simple enough of construction to be hastily set in position when necessary. The modern "automatic" gun is so arranged that the loading, firing, extracting and ejecting, are all performed automatically by the gun itself.

Of a different quality in deadliness are those of the heavy artillery, which throw huge missiles to great distances, and are especially effective in battering down walls. Among these, the Krupp 16-inch "Surprise," first used at Liege, has excited much interest. The gun part alone of this huge cannon, as described by an observer in a recent issue of Collier's, weighs 40 tons, and the carriage is fitted with caterpillar wheels to facilitate transportation over soft ground. The projectiles are of two weights, 2,000 pounds and 2,600 pounds, and the range is such that a target 12 miles away can be accurately struck. When it is known that each shell costs \$970, and that, for instance, an average of 3,000 shells per day were dropped into Namur during the siege, some comprehension of the cost of modern warfare may be vaguely arrived at.

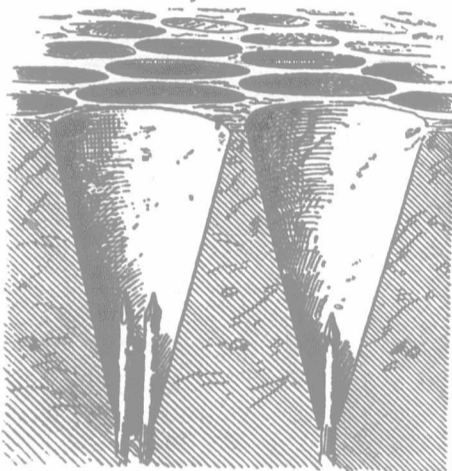
Wire entanglements which, at times, may be charged with electricity; deadly mines hidden underground and exploded at the opportune moment; aeroplanes to drop bombs from above; wolf-holes for crippling cavalry; chevaux-de-frise; the telescope and telephone; telescopic attachments for guns; extension ladders for taking observations,—these are but a few of the mechanical servants of modern field warfare, the machine-and-man warfare of 1914.

And the sea only serves to increase the long list,—Dreadnought and armored cruiser and destroyer, submarine and torpedo and floating mine, all enlisted for the destruction of life.

Perhaps to-day the submarine torpedo-boat is the factor most to be reckoned with in naval warfare, indeed so much so that to the minds of more than one naval expert it has suggested that henceforth even the day of the great Dreadnought may be over.

The history of the torpedo has been a comparatively long one. Nearly one hundred years ago Robert Fulton demonstrated that ships might be destroyed by exploding a large charge of gunpowder against the hull under water, but the difficulty of getting the charge into proper position proved a problem that took years to solve. After some years the "spar torpedo" was conceived, an explosive at the end of a long pole projecting from the end of a small boat, and set off by an electric battery in the boat. The adventure was, of course, one of peculiar danger; all attacks had to be made at night, and the blowing up of a vessel was likely to entail the loss of the small attacking one also; nevertheless, during the American Civil War, the spar torpedo was frequently resorted to. . . . Later, the addition of electric lights to the equipment of ships, rendered it practically useless, but inventive minds kept busy, and finally a torpedo was evolved that would wend its own way to any desired goal. From the "Howell" type, discharged from a tube, and driven by a fly-wheel inside of it, acting gyro-

scopically and propelled by a small special engine outside of the torpedo, it was but a step to the more modern species, the fish-shaped "Whitehead," for instance, which travels under water at a high rate of speed, propelled by two screws driven by compressed air, the fly-wheel caused to rotate by a spring wound up on the outside of the torpedo. A 30-knot torpedo will travel at the rate of 1,000 yards a minute, and explodes on reaching any resistant body. Discharged from a submarine, which, travelling under water in broad daylight can approach to close range, the aim presents no great difficulty. To-day, the above-water torpedo-boat is practically obsolete, having been quite supplanted by the submarine.



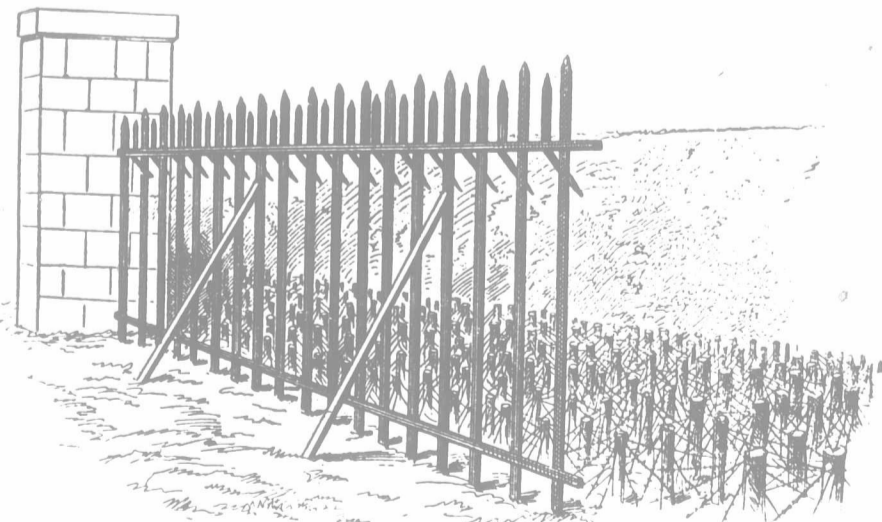
"Wolf Holes."

With sharp stakes, in them to impede attacks against fortresses,—particularly effective against cavalry.

Making way with little but its periscope visible, and that a mere pinhead on the blue water, the latter is at all times practically invisible, and possesses the power of being, at will, entirely so. Warned by the periscope, it can at any time dive, and travel with considerable speed entirely submerged.

Related, somewhat, to the torpedo, is the submarine mine, of which there are two species, the electrical and the mechanical, the former controlled from the shore and discharged at will by an electric current, the latter fitted with a small electric battery or suspended weight inside, which causes it to go off when anything bumps against it.

Mines were used by the Americans in 1777, but the first application of electricity in discharging them was made by Sir Charles Pasley in 1839, in destroying wrecks in the River Thames. The first military use of electrically-fired mines was made during the American Civil War of 1862, when several vessels were sunk. Since then most of the



A DEFENCE AGAINST STORMING  
Barbed Wire Entanglements.

European nations have experimented with them, and they were used during the Franco-German War in 1870, the Russo-Turkish War in 1878, the Spanish-American in 1898, and the Russo-Japanese in 1904-05. Mines and torpedoes were first introduced into the English service about 1863.

The floating mechanical mine, submerged to the required distance, is a small body, usually spiked, a knock upon one of the spikes being sufficient to explode the charge, which is heavy enough to blow up a vessel. Mines of all kinds

are extensively used in war-time for the protection of channels and harbors, as well as for the destruction, when possible, of enemies' vessels.

A few months ago it was the opinion of many that war among the most advanced nations could never occur again. The inventions of to-day, it was pointed out, must preclude all thought of such a culmination to any dispute, and so arbitration must reign. Nevertheless has come the autumn of 1914, and with it the most widespread war the world has ever known.

## Hope's Quiet Hour.

### Be Not Anxious.

Be not therefore anxious for the morrow: for the morrow will be anxious for itself. Sufficient unto the day is the evil thereof.—S. Matt. vi.: 34, R. V.

"O, child! there is summer forever,  
Here under the wintry sky,  
Where the Lord is the light and the glory,  
And His sheep in His pastures lie.  
Where the snow and the wild sleet are driven,  
Far over the lonely mere,  
There is summer beyond all the summers,  
Where Jesus the Lord is near."  
—From the German.

"Made in Germany!" How that word is hated in our land to-day! But we if we claim to be servants of Christ—have no right to hate anybody. Our orders are to love even our enemies—therefore I am glad to remind you that many of the sweetest hymns in our language were made in Germany. When the black clouds of war are swept aside—God grant that it may be soon—and we can see the blue sky of love again, how gladly we shall clasp hands with our fellow-Christians who are now separated from us. Even now the gulf can swiftly be bridged over, for "when an enemy is wounded he is no longer an enemy, but a friend," to be tenderly cared for and protected from danger at all costs.

I did not intend to start off in this way, but the lovely verses "from the German" captured my pen.

Our Lord's command comes home to us to-day and fills us with amazement. It is so easy to look forward hopefully to the morrow when all is going well; but we know instinctively that the command, "Be not therefore anxious for the morrow," is intended for dark days. How is it possible to have "summer forever" under the wintry sky? How is it possible to have "summer beyond all the

thee, Wherefore sighest thou? that thou shalt answer, For the tilings; because it cometh: and every heart shall melt, and all hands shall be feeble, and every spirit shall faint, and all knees shall be weak as water: behold, it cometh." Contrast with that despairing attitude of one waiting for tidings, the brave words of the Psalmist, who says: "Unto the upright there ariseth light in the darkness. . . . he shall not be afraid of evil tidings: his heart is fixed, trusting in the LORD. His heart is established, he shall not be afraid."

If we really obeyed our Lord's command, how very few nervous breakdowns there would be. We have often heard of the man who said he had a great many troubles in his life and "most of them never happened." We can't afford to throw stones at him for his folly in weighing down his heart with imaginary burdens, for we live in glass houses ourselves.

Nerve specialists tell us that worry is not only useless and foolish, but most injurious to mind and body. Can we cure ourselves of worry by making up our minds to give it up? I don't know. One thing I do know, however, that real trust in God can and must drive out anxiety. If you study the passage from which our text is taken you will see that our Lord did not put in the word "therefore" without good reason. The whole command—which is really an invitation—rests on the truth to which the word "therefore" refers. Your Father knoweth what you need, He says, therefore it is quite unnecessary for any of His children to be anxious. We are to be as children—"little" children—or we cannot enter into the kingdom of heaven (S. Matt. xviii.: 3). Little children do not spoil to-day's happiness by forecasting to-morrow's sorrows. They eat the food provided for them, confidently expecting their father to provide for the future. On the last night of His earthly life the Master not only called His disciples His "friends," but He also addressed them tenderly as "little children."

How happy we should be if we accepted our position as little children in our Father's house. It is not easy to watch every day for tidings, fearing nothing because we know that our Father is the King of kings and Lord of hosts. It is not easy, but it is possible. Prayer is our best way of holding up the strong shield of faith, and it is well for us if we have learned the art of prayer in days of peace; so that we have not to go out against this giant Anxiety with unproved weapons. David dared not face Goliath except with the ever-ready weapon which he had proved by long practice. He had confidence in his power to hit any mark with a stone from his sling, but he refused Saul's offer of weapons because his hand was untrained in the use of sword or spear.

Before we open the daily paper, seeking eagerly for news, yet dreading possible evil tidings, let us always kneel down and place ourselves and the cause so dear to us in God's hands. When trouble comes—fresh trouble, I mean—God can make us strong enough to endure it without selfish and cowardly whining. In the meantime we can trust the future in our Father's hands, knowing that He will make all things work together for the good of those who love Him. We are His little children, and He is able to control and overrule the madness of warring nations. No child of God is ever refused an audience. He may be watching over world-problems, but He is never too busy to give undivided attention to one of His little children.

"My Father's house has many rooms,  
And each is fair;  
And some are reached through gathered glooms  
By silent stair;  
But He keeps house, and makes it home,  
Which ever way the children come."

Newell Dwight Hills divides mankind into two classes—the people who live in shadow, and those who live in sunshine. He says that the melancholy people always send their shadow on before them, that they are so busy looking down for painful things on which to step that they do not even know there are stars in the sky. "These folk live on the wrong side of the street. And yet it is

only two  
sidewalk,  
Those w  
nary times  
ordinary  
greatest  
has ever  
less optim  
now. If  
very near  
sorrow in  
Unless we  
help feelin  
wept over  
coming on  
not expect  
be ashamed  
do not pra  
sorrow fro  
enjoy selfi  
enduring h  
prayer a w  
loves is l  
trenches?  
insult to  
away from  
scarcely co  
discomfort,  
centrated o  
Is it pos  
ing, to eas  
—who are  
God? It  
done it—  
of faith is  
on trial.  
We can tr  
mander's h  
bravely, ne  
break and  
Sorrow sh  
We have  
for the Ku  
severe testi  
says: "A  
rumors of  
troubled; fo  
to pass, but



### Try this Thirsty Flour

A very thirsty flour. Absorbs a lot of water. Because it contains so much gluten. Manitoba wheat is wonderfully rich in sturdy gluten. And, think of it, FIVE ROSES is milled exclusively from the very cream of the Manitoba wheat berries. So FIVE ROSES must be awfully thirsty, don't you see. In your mixing bowl it greedily absorbs more water. So you get more loaves than usual without using more flour. You use less. Your flour lasts longer, doesn't it? Less trips to your dealer's. That's how FIVE ROSES saves money. Actually saves YOU money. Use this economical flour.

# Five Roses Flour

Not Bleached



Not Blended

LAKE OF THE WOODS MILLING COMPANY, LIMITED, MONTREAL

only twenty feet across to the other sidewalk, where sunshine always lies." Those words are true enough of ordinary times, but we are not living in an ordinary time, but in the shadow of the greatest calamity the present generation has ever experienced. Light and care; less optimism is utterly out of place now. If the war has not touched us very nearly, it has certainly brought sorrow into millions of other homes. Unless we are very callous we cannot help feeling the pain. Christ Himself wept over the woe which He knew was coming on the city He loved. We cannot expect to escape all pain—we should be ashamed to desire such a thing. We do not pray that God will ward off all sorrow from our lives, allowing us to enjoy selfish ease while our comrades are enduring hardships. Is that the kind of prayer a woman offers when the man she loves is bravely enduring life in the trenches? Such prayers would be an insult to a loving heart. She turns away from anxiety about herself, and is scarcely conscious of her own ease or discomfort, for all her thoughts are concentrated on "news from the front."

Is it possible to be anxious for nothing, to cast care for the safety of others—who are dearer than life itself—on God? It is possible, for others have done it—"looking unto Jesus." The life of faith is not an experiment, it is not on trial. It is we who are on trial. We can trust the future in our Commander's hands, enduring present sorrow bravely, never doubting that clouds will break and right will triumph in the end. Sorrow shall be changed into joy.

We have no need to question our duty, for the King's orders for this time of severe testing cannot be mistaken. He says: "Ye shall hear of wars and rumors of wars; see that ye be not troubled; for all these things must come to pass, but the end is not yet." Our

### YOU Have Many Uses for This Machine!

We are frank in telling you that a SPRAMOTOR rightly used will earn its cost the first season and pay you a handsome profit besides. Our SPRAMOTOR is a very adaptable machine—one that will benefit you in many ways. It saves orchard trees and row crops with equal certainty, destroys weeds, kills rot, blight, canker, lice, beetles and all parasites. It throws paint or whitewash on to buildings twenty times as quick as by hand, and does a better job. Used with disinfectant it protects horses and cattle from biting, tormenting flies and lice. A



## Spramotor

It isn't a SPRAMOTOR unless we made it.

reduces the percentage of loss in fruit over 80% as shown by Government test in 19 different



orchards. Used on potatoes a SPRAMOTOR has increased a yield of almost nothing to 400 bushels an acre. The SPRAMOTOR stands unequalled in the whole world as an effective spraying machine. It has won over 100 Gold Medals and First Awards against all comers. Twenty distinct patented improvements on the SPRAMOTOR that no other machine can have. Prices run from \$6 up to \$350—dozens of styles and sizes. Let us send you FREE our valuable illustrated treatise on Crop Diseases. Post-card brings it quickly.

Made in Canada. No duty to pay.  
**B. H. HEARD SPRAMOTOR**  
107 King St., London, Canada

**Royal Oak Clydesdales** Present offering, 5 Imported Mares (3 with foal by side (2 yearling Furies (1 Imp. and 1 Canadian-Bred), 1 Canadian-Bred Yearling Stallion, 1 Canadian-Bred 2-year-old Stallion, 1 Canadian-Bred 6-year-old Stallion. Parties wishing to secure a good brood mare or stallion should inspect this offering or communicate with me at earliest convenience. G. A. Attridge, Muirkirk, Ont. P.M. and M.C. Ry. L.-D. Phone, Ridgeway.

**Sunnybrook Yorkshires** If you want good herd sires or dams, write or come and see those bred from Eldon Duke, who won five Championships at Toronto and Ottawa exhibitions, 1913 and 1914, and junior champion sow. Pairs supplied not akin. Stock guaranteed as represented.  
WM. MANNING & SONS, Woodville, Ont.

When writing advertisers, kindly mention "The Farmer's Advocate."

orders are clear—and a soldier's first duty is obedience. Like the king of Belgium, our King stays with His army. Others may question doubtfully:

"Peace, perfect peace, with loved ones far away?"

Let us answer:  
"In JESUS' keeping we are safe and they."  
DORA FARNCOMB (HOPE).

### Gifts for the Needy.

I acknowledge gratefully two donations of \$5.00 each, and one of \$1.00, sent by readers of the Quiet Hour "for the needy."  
HOPE.

## The Windrow.

The great reduction of crime in Russia since vodka was banished from the land a few weeks ago, already shows the wisdom of the Czar in taking this unparalleled temperance step. In the precincts of the city of Moscow alone during the first half-year of 1914, there was an average of 896 criminal cases a month; during the first "sober" month there were only 406. A similar story is told of all parts of Russia.

The following Prayer for Horses on the Battlefield is taken from the Russian Liturgy for use in war time: "And for those also, oh Lord, the humble beasts, who with us bear the burden and heat of the day, and offer their guiltless lives for the well-being of their countries, we supplicate Thy great tenderness of heart. For Thou hast promised to save both man and beast, and great is Thy loving kindness. Lord have mercy!"

**ELECTRIC LANTERNS**

No fire—absolutely safe for children—turns on and off instantly. The "BEERS" electric hand lantern gives a strong white light, ideal for walking—driving—or about the farm. Fifty hours light from an ordinary dry battery. Renewal batteries procurable anywhere for 25c. The lantern is of metal handsomely finished in black and nickel. Sent complete postpaid for \$2.50. An excellent Christmas present. Order from Mail Order Department of

**THE MASCO COMPANY, Limited**  
58-60 Church Street, Toronto

**GRAND TRUNK RAILWAY SYSTEM**

**CHRISTMAS AND NEW YEAR FARES**

SINGLE FARE	FARE & ONE-THIRD
Dec. 24, 25, good for return until Dec. 26; also Dec. 31, 1914, and Jan. 1, 1915, valid for return until Jan. 2, 1915.	Dec. 22, 23, 24, 25, good for return until Dec. 28; also Dec. 30 and 31, 1914, and Jan. 1, 1915, valid for return until Jan. 4, 1915.

Above reduced fares apply between all stations in Canada east of Port Arthur and to Detroit and Port Huron, Mich., Buffalo, Black Rock, Niagara Falls and Suspension Bridge, N. Y.

Tickets now on sale at G. T. R. ticket offices.  
C. E. HORNING, District Passenger Agent, Union Station, Toronto, Ont.

**The Ingle Nook.**

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

In the Ingle Nook "topic-drawer," a repository into which drifts all the float-ams and jetsam of floating ideas and odds and ends that may "some day become useful," there came to the top to-day a clipping evidently taken from a story somewhere, a tale woven about a journalist: "A Woman's Page ought to be for WOMEN," she replied. "All women are not housekeepers, and no housekeeper ought to be merely a housekeeper. Most housekeepers are interested in other things besides housekeeping,—fortunately! I want to write for them about some of these other things."

And now, let's talk about it. Considering the question fairly on all sides, don't you think the little journalist spoke absolutely true? Don't you discern among women everywhere a sort of restlessness reaching out past just housekeeping?

If you can't answer "yes" right off the bat, just stand still and look about for a moment. . . Here in one little district, country and village have united to "put on" a Dickens' play for Christmas. "Where can we get theatrical clothes to rent?" they write, and the Ingle Nook says reverently, "God bless you!" as it burrows about to find out the information. "A Christmas Carol" this year, and a classic is introduced. Next year the standard must be kept up, and, thanks be, there are good playwrights enough to choose from: Goldsmith and Sheridan, Ibsen and Galsworthy, may be none too remote for the rural dramatists of the future.—Just here, I do hope you read Miss Orvis's article in the "Christmas Advocate." We must agitate and agitate, and never rest until every rural district in Canada has similar advantages to those secured by the farmers of Wisconsin; what has been done in one place with a good University as its center, can surely be done in others.—The particular association that has brought this reflection up is that the University of Wisconsin keeps on hand a supply of plays, forwarded for a trifle to any part of the State.

Drama in one place. Turn to another and you find Literary Clubs in full force. cozy home reading clubs, perhaps even a Chautauqua reading circle established on systematic lines.—A "club" can never read trash, and so the banner of good literature is kept waving.

Perhaps there is neither a dramatic nor a literary club, but there is sure to be a Women's Institute. Take a peep at its programmes and see what a vast range of subjects afforded—housekeeping with the rest, but also everything else connected with the public weal, from public-health problems to the establishing of public works,—everything except woman suffrage!

But there are suffragists a-plenty, too, both within and without the Institute, and it is not straining a point to say that the vast majority of women who would like to vote wish to do so, not for the mere sake of doing what men do, not with any desire to supplant or shoulder aside men in any way, but out of a sincere wish to let woman's voice be heard in all things that affect the welfare of women and of those peculiarly dependent upon them, the children.

Yes, there is a restlessness, an out-reaching everywhere in feminine ranks, woman striving to assist herself, not in vainglory, but as a human whose destiny it is to climb, and who cannot climb so well as long as there are shackles about her feet.

There are still a few old fogies on the face of the earth who declare "Woman's place is in the home. If she attends to her housework right, she will not have time for any of this outside nonsense."

Now, the first of these statements is absolutely true. The home certainly is woman's best sphere—and every true woman recognizes the privileges and opportunities of such a spot.—The old fogeydom consists in believing that the home is shut in by four walls and a roof.

Four walls and a roof?—Why, the home reaches out everywhere, especially if there are children in it,—to education, to the broadening religious conceptions of the Twentieth Century, to government of the country—all for the sake of the child.

That a woman shall understand this truth makes all the difference between a household drudge and a homemaker.—And that brings up another question, one, reader, for you to think out for yourself: Is it true that "the most successful housekeeper is often the poorest homemaker"?

Now, to the second statement: "If a woman attends to her housework right she will not have time for anything outside of it."—Here, again, there are questions to be answered. Of course, it is conceded that there are some women so overrun and burdened down with housework as to have positively no time to read or to go out to meetings and lectures; but take the majority of women. Could not the most of them "navigate," by using brain-work enough, to arrange time for something more than baking, scrubbing, and all the rest of it? Is the one who accomplishes most in the long run the one who keeps bright and happy, through being interested in outside things, and who learns of best and quickest methods of work through keeping in touch with up-to-date methods? Or is she the one who moils away in the same rut year in, year out? It is nerve-racking, that muddling along in a rut, and because of it a good many women have had to pay the piper sooner or later. System is good, but let system be the slave, not the master. "The greatest Discovery I have made during fifteen years of housekeeping," says a writer in Good Housekeeping, "is that the earth revolves on its axis, and all other important events take place just the same, whether I iron on Tuesday or Thursday, or clean on Friday or Saturday."

It is, of course, necessary that the housekeeper be a "good housekeeper," that the house be kept clean, sanitary and comfortable, and that the meals be wholesome and well balanced; the point is that commonsense be used in everything, and that neither work nor time be expended upon things that serve no good purpose.

Just in how far, then, should a woman

fuss over her housework? asks someone.

We have talked over this question in the Ingle Nook, you and I and all of us, many a time, have we not? and if I remember rightly have come to the conclusion that the farm woman, who has so many, many things to do, should weed out the "fuss" altogether. A pretty house with plain, smooth furniture, which can be easily dusted, should be hers; tacked-down carpets should be taboo, as they are in practically all city houses, and so should a superfluity of bric-a-brac, "dust-traps"; curtains should be sash length, not trailing about the floor to be soiled; a vacuum cleaner, dustless mop and duster, a good washing-machine and wringer, and cans of patented "cleanser," or even ashes and salt mixed together, for pots and pans, should make the work of keeping clean comparatively easy; meals should be appetizing and well planned, but not elaborate; useless frills, which mean tedious ironing, should be given a long leave of absence, and cotton crepe, which does not need ironing at all, should be substituted for cotton for nightdresses and all thin underwear.

Such a scheme, endlessly added to by every woman capable of thinking out problems, with a house contrived to save every step possible, should give most women time to spare to devote to other things—the mental make-up that is, after all, the real Us. Baking, scrubbing, ironing, sewing, may, indeed, express us to some small extent, but they do not constitute Us; only what and how we think can do that.—And this brings us to another question: What sort of mental pabulum is the housekeeper, as a rule, giving herself?—An important question, because, without food, the mind cannot grow.

Those of you who were at the Women's Institute Convention in London this year, will remember one of Mrs. Courtice's (Wallaceburg) pithily put statements: "Some people think more of scrubbing the last inch of dust out of their houses than of sweeping the dust out of their brains." The observation reminded me of what Hellen Keller—the wonderful blind, deaf girl—also said, that in talking with people she found that the great majority were in a comparatively "infantile state of development." That sounds sweeping, and yet perhaps every one of us, in honestly considering her own mind and the endless possibilities of mind as it may be, must confess that Miss Keller spoke absolute truth.

Now, surely this should not be. We should, at least, be on the upward track, and so we should look to our "pabulum." Books, magazines, and lectures, of good quality, worth-while people, service for others even at inconvenience to ourselves,—these are the things that make us grow, the real Us. And for those of us who are on farms, the winter, with its long evenings, is the best growing season.

We are economizing this winter, perhaps, that we may be able to send more to the soldiers and the Belgians, but let us not economize too much on good books and magazines. There are some good books in every local library, and the best magazines do not cost so very much. Why not coax the good man to read aloud while you knit or make shirts for Johnnie Canuck or Tommy Atkins away at the front?

A delegate from somewhere said at the London Convention that her Institute was taking up, this winter, a study of the countries involved in the war. There is a suggestion in that. For one of the delights of reading is that it ever causes one to branch out to all correlated subjects; for instance, a study of the European countries—their peoples, customs, etc.—very naturally leads on to a study of their literature, their art, their great men and women. So it is with other things.

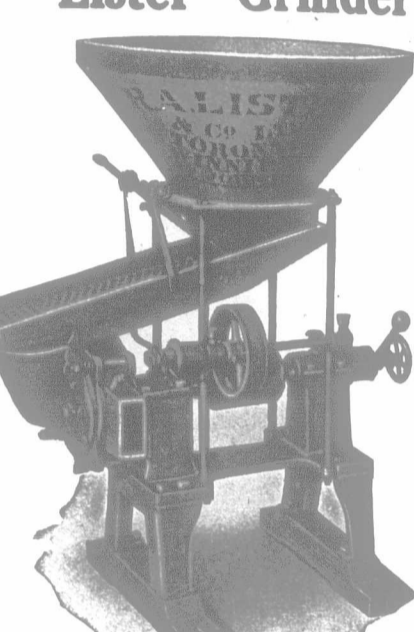
Won't you write and tell us about any experience you have had in regard to any of these questions? JUNIA.

FROM A SHUT-IN FRIEND.  
Dear Junia,—Here comes the Lankshire Lass again to greet you all.

As the Christmas season is near us, and the glad New Year, too; I write to send my best greetings to each one of you.

How fast Father Time has hurried on.

**The Lister Grinder**



**Quality in Grain Grinders**

The present-day Canadian farmer insists on quality in his farm equipment. All the Lister Lines are celebrated for their high quality, and the Lister Grinder combines QUALITY with great EFFICIENCY and DURABILITY. We guarantee our grinder to do 10 per cent. more work than any other of its size, the same power being used. Write for Catalogue "GF."

**R. A. LISTER & COMPANY, Limited**  
Sole makers of the well-known LISTER GASOLINE ENGINE  
Toronto, Ontario  
Branches at Winnipeg, St. John, Camrose, Calgary and Montreal

**CHALLENGE COLLARS**

Acknowledged to be the finest creation of Water-proof Collars ever made. Ask to see, and buy no other. All stores or direct for 25c.

Made in Canada

**THE ARLINGTON CO. of Canada, Ltd.**  
58 FRAZER AVENUE TORONTO

All "ARLINGTON COLLARS" are good, but our CHALLENGE BRAND is the best  
MADE IN CANADA

**Harab FERTILIZERS**

Write for FREE Fertilizer Booklet and prices.  
**THE ONTARIO FERTILIZERS, LIMITED**  
West Toronto, Ont.

**DO YOU NEED FURNITURE?**

Write for our large photo-illustrated Catalogue No. 7. It's free to you.  
**The ADAMS FURNITURE CO., Limited**  
Toronto, Ontario

**FREE**—We will give free to any person interested in stock or poultry one of our 80-page illustrated books on how to feed, how to build hen-houses; tells the common diseases of poultry and stock, with remedies for same; tells how to cure roup in four days; tells all about our ROYAL PURPLE Stock and Poultry Foods and Remedies. Write:  
**W. A. JENKINS MFG. CO.**  
London Canada

Please mention "The Farmer's Advocate."

GEOMET  
Paper  
Elevate silage  
er than any other  
first uses centrif  
a steady stream  
high pressure th  
easy to operate  
gate the Paper  
time. Write tod  
York  
soon to be i  
feel as if I  
visit before  
I cannot go  
way. I wor  
doing or ar  
ever you do,  
—not in giv  
those who ha  
ures—they do  
out those wh  
many, perhap  
Yes, and do n  
ple. They m  
mas, and a  
good. Just  
look on the  
see and feel  
come.  
There are st  
war is on.  
over! Some  
where one co  
There was wo  
Children's Sh  
but I am not  
or not. One  
them.  
By the way,  
why your ma  
maple syrup w  
pies or pu  
the right amo  
of cakes, esp



"British through and through"

# BUY DIRECT

We pay freight to any point in Old Ontario

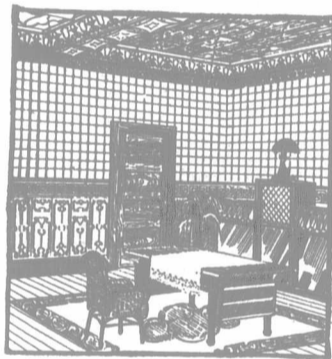
The Metallic Roofing Co., Limited, is determined that the farmers of Ontario shall have the fullest opportunity of buying British-made goods, with the least possible trouble and at the lowest possible price and we now advertise

## "Metallic" Ceiling and Wall Plates

for sale direct from the factory at rock bottom prices for cash. There being so many patterns and styles, it is impossible to quote prices here—so just write us for information that will open your eyes. "Metallic" Ceiling and Wall Plates come in many beautiful, registered designs. The patterns are clean and sharp. The sheets are British-made, always true and straight and can be laid on any surface.

Of course we have always sold direct to farmers

during our whole 30 years' business, whenever they wished to buy that way, so it is no new thing with us for any of our products. Just now, however, we wish to make it specially easy for Ontario farmers to beautify their homes, churches, schools and other buildings with these beautiful, clean, fire-retardant, British-made "Metallic" Plates and offer big bargains in reduced prices. We also pay freight to any point in Old Ontario, which amounts to another big cut in price. Now is the time to buy.



Just drop us a card—We send you full information, illustrated catalogues, etc., without committing you in any way. Cut prices also made on the famous "Eastlake" Shingle, Rock and Brick-face Siding, "Empire" Corrugated Iron. Address:

### The Metallic Roofing Co.

Manufacturers Limited Toronto  
Established 1885

### Papec Pneumatic Ensilage Cutters

"The Wonderful Papec"

Elevate silage to any height at 600 to 800 R. P. M., with one fifth less power than any other blower cutter. This is due to the fact that the Papec first uses centrifugal force, then with its six fans moving the cut silage in a steady stream—not in bunches—the elevating is accomplished under high pressure through a small pipe. Iron and semi-steel construction; easy to operate. Built in sizes for any power from 4 H. P. up. Investigate the Papec now—and save time, annoyance and money at cutting time. Write today for our new illustrated catalog. It is FREE.

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

### THE PAPEC



IT THROWS AND BLOWS

soon to be into another new year! I feel as if I must write again; give my visit before Christmas in this way, for I cannot go and call on you any other way. I wonder what you all intend doing or are going for Christmas. Whatever you do, make somebody glad, dears, not in giving presents or doing for those who have plenty, and many pleasures—they do not need it. Go and search out those who need cheer; there are so many, perhaps nearer than you think. Yes, and do not forget the dear old people. They may not see another Christmas, and a little cheer will do them good. Just try it, and see the glad look on the dear old faces. Let them see and feel they are wanted and welcome.

There are sad times now this dreadful war is on. Oh, that it may soon be over! Someone in the Nook asked where one could get a Belgian child. There was word of some coming to the Children's Shelter in Guelph a while ago, but I am not sure whether they came or not. One could find out by writing them.

By the way, "Aronacle," I do not see why your maple sugar grgtd, or the maple syrup would not do to sweeten pies or put in cakes. If you could get the right amount needed in some kind of cakes, especially the dark ones, I

should think it would be nice in them instead of sugar for those who care for maple syrup. About keeping cookies crisp, you can if they are kept in airtight cans, so I have found, for years. Do not let it stand open at all; take out cookies, and close at once. If you have good cream, no other shortening is needed in cakes. Try one teaspoon soda to one quart of flour. It has never failed me yet. Always add a pinch of salt to all baking; it makes it nicer. Did you ever try the cookie and fruit cake recipe I gave once made with sour cream? They are always good. I prefer cream to any other shortening when it can be had.

I used to love baking and putting up tasty meals; had lots of it to do in my day of usefulness, and sorry to be laid aside now; it gives so much pleasure doing for others. It makes one more lonely not to be able to do it now, and to be always at home. Wouldn't I enjoy a peep into the stores at Christmas? Even that would be a treat, but I have other ways of pleasure, and feel happy knowing there is far better laid up for me, so I keep trusting all the way, nearing the glory land day by day. While I wait, I long to do so much to brighten others' pathway. If only I could just see the good Junia and Hope are doing. What helpful writings they

give us. Wishing all a most joyous Christmas season and a bright New Year, thanking one and all who have shown me any kindness, your sh in friend,  
LANKSHIRE LASS  
Wellington Co., Ont.

[Don't you think, Ingle Nook friends, that it would be nice to give "Lankshire Lass" a letter-party for Christmas Day? I, for one, will write her. How many will follow? All letters addressed to her, in care of me, will be forwarded at once. Be sure to leave plenty of room for re-addressing on the envelope.—Junia.]

#### TRANSPLANTING GERANIUM.

Dear Junia,—I have been a silent reader of your Nook for a long time, and received much help from it. Now, like many others, I have come for help. Can you tell me how to transplant a geranium so the leaves will not wither and fall? Also, do you know of any firm to which untanned muskrat skins could be sent to be turned into ready-to-wear furs?  
GRAY EYES.  
P. E. I.

When starting geraniums by "slips," some of the leaves often fall off, but this will do no harm, as the plant quickly revives. Geraniums, indeed, are among the easiest of plants to propagate in

this way. To "transplant" a geranium (do you mean to move it to a larger pot?) turn the pot on its side and knock it gently on some hard surface to loosen the ball of soil, then place your hand over the surface and invert. Soil, plant and all will come out together, without disturbing the roots, and may be readily transferred to a larger pot and packed about with rich fresh earth. Water well. Shifted in this way the leaves should not fall off.

Write to the nearest fur manufacturer in regard to your furs.

#### STAIN ON DRESS.

Dear Junia,—Will you kindly mention something to take a tea stain out of brown dress goods?

We have taken "The Farmer's Advocate" for about five years, and find it a very valuable paper. Wishing you all success.  
GERANIUM.  
Peterboro Co., Ont.

I can find no method for taking out the stain. Am afraid you will have to dye the whole dress a darker brown. A professional dyer could probably do the work satisfactorily.

# Buy High-Grade Flour

MAKE the best bread and pastry you've ever tasted. Prices of flour and feeds are listed below. Orders may be assorted as desired. On shipments up to 5 bags buyer pays freight charges. On shipments over 5 bags we will prepay freight to any station in Ontario east of Sudbury and south of North Bay. West of Sudbury and New Ontario add 15 cents per bag. Prices are subject to market changes. Cash with orders.



## Cream of the West Flour

the hard wheat flour that is guaranteed for bread

GUARANTEED FLOURS	Per 98-lb. bag
Cream of the West (for bread)	\$3.40
Toronto's Pride (for bread)	3.15
Queen City (blended for all purposes)	2.95
Monarch (make delicious pastry)	2.95

FEED FLOURS	
Tower	1.85

CEREALS	
Cream of the West Wheatlets (per 6-lb. bag)	.35
Norwegian Rolled Oats (per 90-lb. bag)	3.10
Family Cornmeal (per 98-lb. bag)	2.15

FEEDS	Per 100-lb. bag
Bullrush Bran	\$1.35
Bullrush Middlings	1.45
Extra White Middlings	1.60
Whole Manitoba Oats	1.95
Crushed Oats	2.00
Chopped Oats	2.00
Whole Corn	1.65
Cracked Corn	1.75
Feed Cornmeal	1.65
Whole Feed Barley	1.90
Barley Meal	1.95
Oatmeal	2.05
Geneva Feed (Crushed Corn, Oats and Barley)	1.90
Oil Cake Meal (old process)	1.90

Special prices to farmer's clubs and others buying in carload lots.

## The Campbell Flour Mills Company Limited

(West) Toronto

When writing advertisers, kindly mention "The Farmer's Advocate."

## We'll Build Your Barn

Don't worry your head over plans. We have over two hundred plans of barns actually built for Canadian farmers which you can pick and choose from. We'll make any alterations to suit your needs, or we'll get up entirely new plans for you. If you want to remodel or make any changes, we have experts who can do your planning for you—tell you what the change will cost and do the work if you want them to.

In all our plans we pay particular attention to light and ventilation and to the most modern and convenient layout of every foot of space. Our Steel Truss Barn which we have been erecting for farmers for the past two years is giving the best satisfaction. Owners tell us that if they had other barns to build they would be Steel Truss.

These men told us the size barn they wanted and gave us an idea of the layout. Our men then gave them working plans for the stable and foundation. When the foundation was up we had our builders on the job to put up the balance of the building in eight to ten days' time.

There was no worry or fuss to get men to do the job—no cutting timber in the bush—no hard work for the womenfolk feeding a large crew of men. We furnished all the material for the barns we erected and the Steel Trusses, the Acorn metal covering, the hardware, lumber, etc.

We made the barns fire and lightning proof, and can supply our Acorn Lightning Proof Ridge, approved by Prof. Day, of the O. A. C.

For those who want a lighter and cheaper wood construction, we are prepared to erect the latest type of Plank Frame Barns.

We have letters from those for whom we have erected Steel Truss Barns, telling us of their satisfaction. We want to put these letters and our entire set of plans before you, so that you will know just how we can serve you.

Send your name to-day for plans. They are free. Our entire plan service is free to those who are going to build.

### THE METAL SHINGLE & SIDING CO., Limited, Preston, Ontario

Factories at MONTREAL, TORONTO  
PRESTON, WINNIPEG, SASKATOON  
CALGARY and REGINA

### POULTRY AND EGGS

Condensed advertisements will be inserted under this heading at 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 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 advertisements inserted for less than 50 cents.

**BRONZE turkeys**—Extra good color and bone; weight from 25 to 29 lbs. each; also good pullets, 16 to 18 each. Chas. Gould, R.R. No. 1, Glencoe, Ont.

**BARRED Rocks, Silver Campines, Silver Spangled Hamburgs, White Leghorns, Mammoth Pekin ducks.** L. J. Gibbons, Iroquois, Ont.

**BREEDER** of high-class Barred Rocks and Pekin ducks. Two hundred cockerels at reasonable prices. Leslie Kerns, Freeman, Ont.

**MAMMOTH Bronze turkeys**—Fine, heavy birds; bred from prize stock. R. G. Rose, Glanworth, Ont.

**MAMMOTH Bronze Turkeys** bred from prize winning stock. Good healthy birds. W. K. Ritchie, Elmvale, Ont.

**MAMMOTH Bronze turkeys**, bred from prize-winners; good healthy stock. Toms, 24 to 28 lbs., \$7; hens, 15 to 17 lbs., \$4. W. W. Hodgins, No. 4, Denfield, Ont.

**MAMMOTH Bronze turkeys**, both sexes, choice birds. D. Ashworth & Son, R.R. No. 2, Denfield, Ont.

**O.A.C.** Bred to lay Barred Rock Cockerels for sale at \$3.00 each. All hatched from eggs from Prof. Graham's famous bred-to-lay strain. R. Schuyler, Paris, Ont.

**PURE BRED Bronze Turkeys.** Fine, healthy, strong, heavy-boned birds. Bred from Bell's, Gould's and Snettinger's famous toms and hens. Satisfied customers, everywhere. W. T. Ferguson, Spencerville, Ont.

**PUREBRED Rouen Pekin and Aylesbury ducks.** Embden geese, Bronze turkeys. C. Maier & Son, Riverview Farm, Delaware, Ont.

### Stone and Stump Pullers

Capable of lifting 18,000 lbs.

#### SNOW PLOWS

For Township roads—for lumber camp roads—for sidewalks.

#### BOB SLEIGHTS

A. LEMIRE, Proprietor Wotton Que.

Please mention "The Farmer's Advocate."

### VILLA VIEW AND FAIRMONT HOLSTEINS

(The Home of King Seg's Alcarra Calamity)  
For Sale—Ten bull calves nine months old, one ready for service; all nicely marked and well grown, from record of merit dams with records up to 22.11. Prices from \$50 to \$100.

Arbogast, Bros., Sebringville, Ont.

P. S. Arbogast, Mitchell, R.R. No. 2.

### News of the Week

During the week important news has come from two wide apart zones. In the first place, Vice-Admiral Sturdee, in command of a British squadron, succeeded in sinking the German vessels, Scharnhorst, Gneisenau, Leipzig, and Nürnberg, near the Straits of Magellan. In the second, North Serbia has really succeeded in accomplishing a great victory over the Austrians, capturing great numbers of men, horses, and field-pieces.

Less spectacular victories have been won in South Africa, where De Wet has been taken prisoner, and at Korna, near the Persian Gulf, where 1,100 Turks under Subhi Bey, surrendered. It is also reported that on the Western battle-ground, Roulers and Armentieres have been captured by the Allies.

Russia has refused to accede to the Pope's suggestion that a truce be held for Christmas Day.

### Our Serial Story.

#### PETER.

A Novel of Which He is Not the Hero

By F. HOPKINSON SMITH.

Copyrighted by

Charles Scribner's Sons.

Chapter XXII.

Summer has come along the banks of the repentant stream the willows are in full leaf; stretches of grass, braving the coal smoke and dust hide the ugly red earth. The roads are dry again; the slopes of the "fill" once more are true,



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.

**FERRETS**—Rid your place of rats, drive rabbits. Calvin Jewell, Spencer, Ohio.

**FARM** to rent—First class farm, clay loam, 165 acres cleared land, buildings, fences, etc., the best. Lots 11 and 12 Edgeware Road, Yarmouth, 4 miles from St. Thomas, Ont. None but first class man with means need apply. For particulars address R. W. and M. G. Ballah, R.R. 8, St. Thomas, Ont.

**I DESIRE** position on fruit or grain farm on shares; have had several years experience on both; age 28; married. James F. Thomas, Oakland, Ont.

**WANTED** a good farm not less than 100 acres with stock and implements to work on shares. Western Ontario preferred. Apply Box R, Farmer's Advocate, London, Ont.

**WANTED** to rent, with option of buying in three or five years, 100 acres of good land, well built on, close to school, church and station. Apply Box V, Farmer's Advocate, London, Ont.

### FARM FOR SALE

**John Fisher & Co., Lumsden Bldg., Toronto.** Kingston Road farm, west of Bowmanville, 11½ acres, fronting on Kingston Road, mile from town clay loam soil, seven-roomed dwelling, good bank barn (36x90), driving-shed and piggery, good springs, twenty acres maple bush, orchard. Price \$70 per acre. Easy terms.

**Maplewood Herd** Aberdeen - Angus—A few young cows and heifers for sale; no bulls. Address: A. W. McEWING, R.R. No. 1, Blyth, Ontario C. P. R. or G. T. R.

**"Granger's Notice"**—Cedar Fence Posts to 6½ inches at small end, 8 ft. long, 5½ inches only; 500 to car. Anchor posts 7 inches up to 9 inches, 25c. each. F.O.B. Grooterham, BOX 52. GOODERHAM, ONT.

Please mention "The Farmer's Advocate."

all the arches in the mouth of the tunnel are finished; the tracks have been laid and the first train has crawled out on the newly-tracked road where it haggled, snorted and stopped, only to crawl back and be swallowed by The Beast.

And with the first warm day came Miss Felicia. "When your wretched, abominable roads, my dear, dry up so that a body can walk without sinking up to their neck in mud—" ran Miss Felicia's letter in answer to Ruth's invitation,—"I'll come down for the night," and she did, bringing Ruth half of her laces, now that she was determined to throw herself away on "that good-for-nothing—Yes, Jack, I mean you and nobody else, and you needn't stand there laughing at me, for every word of it's true; for what in the world you two babes in the wood are going to live on no mortal man knows;" Ruth answering with her arm tight around the dear lady's neck,—a liberty nobody,—not even Peter, ever dared take—and a whisper in her ear that Jack was the blessedest ever, and that she loved him so sometimes she was well-nigh distracted—a statement which the old lady remarked was literally true.

And we may be sure that Peter came too—and we may be equally positive that no impassable roads could have held him back. Indeed, on the very afternoon of the very day following the receipt of the joyful telegram, he had closed his books with a bang, performed the Moses act until he had put them into the big safe, slipped on his coat, given an extra brush to his hat and started for the ferry. All that day his face had been in a broad smile; even the old book-keeper noticed it and so did Patrick, the night-watchman and sometimes porter; and so did the line of depositors who inched along to his window and were greeted with a flash-light play of humor on his face instead of the more sedate, though equally kindly expression which always rested on his features when at work.

But that was nothing to the way he hugged Jack and Ruth—separately—then Ruth, then Jack—and then both together again, only stopping at MacFarlane, whose hand he grabbed with a "Great day! hey? Great day! By Cricky, Henry, these are the things that put new wine into old leather bottles like you and me."

And this was not all that the spring and summer had brought. Fresh sap had risen in Jack's veins. This girl by his side was his own—something to work for—something to fight for. MacFarlane felt the expansion and put him in full charge of the work, relieving him often in the night shifts, when the boy would catch a few hours' sleep, and when, you may be sure, he stopped long enough at the house to get his arms around Ruth before he turned in for the night or the morning, or whenever he did turn in.

As to the injury which McGowan's slipshod work had caused to the "fill," the question of damages and responsibility for the same still hung in the air. The "fill" did not require rebuilding—nor did any part of the main work—a great relief. The loss had not, therefore, been as great as MacFarlane had feared. Moreover the scour and slash of the down-stream slope, thanks to Jack's quick work, required but few weeks to repair; the culvert, contrary to everybody's expectation, standing the test, and the up-stream slope showing only here and there marks of the onslaught. The wing walls were the worst; these had to be completely rebuilt, involving an expense of several thousands of dollars, the exact amount being one point in the discussion.

Garry, to his credit, had put his official foot down with so strong a pressure that McGowan, fearing that he would have to reconstruct everything from the bed of the stream up, if he held out any longer, agree to arbitrate the matter, he selecting one expert and MacFarlane the other; and the Council—that is, Garry—the third, MacFarlane had chosen the engineer of the railroad who had examined McGowan's masonry an hour after the embankment had given way. McGowan picked out

brother personaling it office who, v Garry, rned tion might d invariab in anyb position

This down t pendent Garry envelope official mittee when a tions a be draw a major week, to

It wa gened r the one official quite a Jack's justable self acc young gathered violet w low reli in light fumes, a sniffed nothing postal-c and, the

This from an at, or p of unusi per left- the wor

It was good w banks w all, in boarders

Jack v "Call "the fir the scor formatic that ma

As th from his prise wa truth b that ge of his h ding,—an and aga stopped perfunct his brav account newspaper his new into his contrary tunity o toward since he was by social a Jack w night," morning house

"They s Mr. G going to which B was wel Portmar Grayson much do board t Mrs. Br she nor Portmar has ofte scoop i vet Rut Miss Fe out-of-to Mrs. B long dis sufferabl MacFarl all odds and as f have fal Jack t pocket.

brother contractor and Garry wrote a personal letter to Holker Morris, following it up by a personal visit to the office of the distinguished architect, who, when he learned that not only Garry, MacFarlane, and Jack were concerned in the outcome of the investigation, but also Ruth—whose marriage might depend on the outcome,—broke his invariable rule of never getting mixed up in anybody's quarrels, and accepted the position without a murmur.

This done everybody interested sat down to await the result of the independent investigations of each expert, Garry receiving the reports in sealed envelopes and locking them in the official safe, to be opened in full committee at its next monthly meeting, when a final report, with recommendations as to liability and costs, would be drawn up; the same, when adopted by a majority of the Council the following week, to be binding.

It was during this suspense—it happened really on the morning succeeding the one on which Garry had opened the official envelopes—that an envelope of quite a different character was laid on Jack's table by the lady with the adjustable hair, who invariably made herself acquainted with as much of that young gentleman's mail as could be gathered from square envelopes sealed in violet wax, or bearing family crests in low relief, or stamped with monograms in light blue giving out delicate perfumes, each one of which that lady sniffed with great satisfaction; to say nothing of business addresses and postal-cards,—the latter being readable, and, therefore, her delight.

This envelope, however, was different from any she had ever fumbled, sniffed at, or pondered over. It was not only of unusual size, but it bore in the upper left-hand corner in bold black letters the words:

ARTHUR BREEN & COMPANY,  
BANKERS.

It was this last word which set the good woman to thinking. Epistles from banks were not common, never found at all, in fact, among the letters of her boarders.

Jack was even more astonished. "Call at the office," the letter ran, "the first time you are in New York,—the sooner the better. I have some information regarding the ore properties that may interest you."

As the young fellow had not heard from his uncle in many moons, the surprise was all the greater. Nor, if the truth be known, had he laid eyes on that gentleman since he left the shelter of his home, except at Corinne's wedding,—and then only across the church, and again in the street, when his uncle stopped and shook his hand in a rather perfunctory way, complimenting him on his bravery in rescuing MacFarlane, an account of which he had seen in the newspapers, and ending by hoping that his new life would "drop some shekels into his clothes." Mrs. Breen, on the contrary, while she had had no opportunity of expressing her mental attitude toward the exile, never having seen him since he walked out of her front door, was by no means oblivious to Jack's social and business successes. "I hear Jack was at Mrs. Portman's last night," she said to her husband the morning after one of the ex-Clearing House Magnate's great receptions. "They say he goes everywhere, and that Mr. Grayson has adopted him and is going to leave him all his money," to which Breen had grunted back that Jack was welcome to the Portmans and the Portmans to Jack, and that if old Grayson had any money, which he very much doubted, he'd better hoist it overboard than give it to that rattlebrain.

Mrs. Breen heaved a deep sigh. Neither she nor Breen had been invited to the Portmans', nor had Corinne (the Scribe has often wondered whether the second scoop in Mukton was the cause)—and yet Ruth MacFarlane, and Jack and Miss Felicia Grayson, and a lot more out-of-town people—so that insufferable Mrs. Bennett had told her—had come long distances to be present, the insufferable adding significantly that "Miss MacFarlane looked too lovely and was by all odds the prettiest girl in the room, and as for young Breen, really she could have fallen in love with him herself!"

Jack tucked his uncle's letter in his pocket, skipped over to read it to Ruth

# DEAF

People—thousands who believed themselves completely deaf—are hearing again, clearly and perfectly, with the aid of a remarkable, new scientific invention. Will you try the—

Hearing  
in the  
Palm of  
your  
hand.



## New 8-Tone Mears Ear Phone

at our risk? It is an ingenious inconspicuous little device which has improved the hearing of thousands of sufferers from deafness. It embodies eight different adjustments, any of which can be changed with one touch of the finger to suit any condition of the hearing.

**Free Trial** Prove its powers at our risk. Will you try a Mears Ear Phone for 15 days in your home, absolutely free? Will you believe the evidence of your own ears? That is all we ask. Send for our free trial offer.

**Special Direct Offer** The new 8-Tone Ear Phone can be had only direct from our Montreal Office. To advertise our new direct-selling plan and to introduce the Perfected Mears 8-Tone instrument, we are now making a Special Introductory Offer direct to you. Write at once for particulars.

**Valuable Book on DEAFNESS FREE!**

Write for valuable book on deafness—mailed free—explains all the causes of deafness; tells how to stop the progress of the malady and how to treat it. Write at once—now—for this FREE Book and our Special Introductory Offer. Send to-day—now, 1

**Dupuis Freres**  
Dept 101 MONTREAL, CANADA

## GRAND TRUNK RAILWAY SYSTEM

DOUBLE TRACK ALL THE WAY  
**Toronto - Chicago**  
**Toronto - Montreal**

Unexcelled Train Service  
Highest Class of Equipment

WINTER TOURS to  
**CALIFORNIA, FLORIDA and**  
**SUNNY SOUTH**

The Grand Trunk Railway is the most direct route from all points East through Canada, via Chicago, Detroit or Buffalo.

**FAST TRAINS—CHOICE OF ROUTES**  
Full particulars and berth reservations at G. T. R. ticket offices.

## WANTED

Oat Straw  
Mixed Hay  
Clover Hay

WRITE FOR PRICES  
**F. WILMORE**  
Strachan Ave. Toronto

Please mention "The Farmer's Advocate."

## OTTAWA WINTER FAIR

OTTAWA

January 19, 20, 21, 22, 1915

Eastern Ontario's Great Winter Fair.

Most modern and completely equipped Winter Fair Buildings in the Dominion.

**\$12,000.00 Offered in Prizes**

Entries close January 6th, 1915.

**JOHN BRIGHT, President, W. D. JACKSON, Secretary**  
OTTAWA, ONT. OTTAWA, ONT.

**MOFFAT Ranges**

Are acknowledged best.  
Write for Free Booklet.  
**THE MOFFAT STOVE COMPANY LTD.**  
Weston, Ont.

## Learn to Stuff Birds

Do you ever hunt or fish? Be sure to write today for our free book. Find out how to stuff and mount birds, animals and game birds and tan skins. Fine business, very fascinating and profitable. Every hunter and fisherman should have this book. Don't go another day without it. Book is free and prepaid.  
**Write Today!** Every trophy you take is valuable. You can make big money mounting for others. Write today—and get free book. Act now!  
Prof. J. W. ELWOOD, Taxidermist, 7649 Elwood Bldg., Omaha, Neb.

**Pull out The stumps** **With The Hercules**  
All Steel, Triple Power Stump Puller  
Biggest stump pulled in five minutes or less. Clears an acre of land a day. Makes your stump land money land. 30 days free trial—3 year guarantee. Get our new book and special low price offer now.  
Hercules Mfg. Co., 1936 23rd St., Centerville, Ia.

## Winter Session

Opens January 4th in all departments of the CENTRAL BUSINESS COLLEGE, Yonge and Gerrard Streets, Toronto. Our Catalogue and Gerard Streets, Toronto. Staff, explains our superiority in Equipment, Methods and Results. You are invited to write for it if interested in the kind of school work which brings best success. Address:  
**W. H. SHAW, President**

Please mention "The Farmer's Advocate."

## Chiclets

REALLY DELIGHTFUL  
**THE DAINTY MINT - COVERED CANDY - COATED CHEWING GUM**

and MacFarlane, in explanation of his enforced absence for the day, and kept on his way to the station. The missive referred to the Morfordsburg contract, of course, and was evidently an attempt to gain information regarding the proposed work, Arthur Breen & Co. being the financial agents of many similar properties.

"I will take care of him, sir," Jack had said as he left his Chief. "My uncle, no doubt, means all right, and it is just as well to hear what he says—besides he has been good enough to write to me, and of course I must go, but I shall not commit myself one way or the other—" and with a whispered word in Ruth's ear, a kiss and a laugh, he left the house.

As he turned down the short street leading to the station, he caught sight of Garry forging ahead on his way to the train. That rising young architect, chairman of the Building Committee of the Council, trustee of church funds, politician and all-round man of the world—most of which he carried in a sling—seemed in a particularly happy frame of mind this morning judging from the buoyancy with which he stepped. This had communicated itself to the gayety of his attire, for he was dressed in a light-gray check suit, and wore a straw hat (the first to see the light of summer) with a green ribbon about the crown,—together with a white waistcoat and white spats, the whole enriched by a red rose bud which Corinne had with her own hands pinned in his buttonhole.

"Why, hello! Jack, old man! just the very fellow I'm looking for," cried the joyous traveller. "You going to New York?—so am I,—go every day now,—got something on ice,—the biggest thing I've ever struck. I'll show that uncle of yours that two can play at his game. He hasn't lifted his hand to help us, and I don't want him to,—Cory and I can get along; but you'd think he'd come out and see us once in a while, wouldn't you, or ask after the baby; Mrs. Breen comes, but not Breen. We live in the country and have tar on our heels, he thinks. Here,—sit by the window! Now let's talk of something else. How's Miss Ruth and the governor? He's a daisy,—best engineer anywhere round here. Yes, Cory's all right. Baby keeps her awake half the night; I've moved out and camp upstairs; can't stand it. Oh, by the way, I see you are about finishing up on the railroad work. I'll have something to say to you next week on the damage question. Got all the reports in last night. I tell you, my old chief, Mr. Morris, is a corker! What he doesn't know about masonry isn't worth picking up;—can't fool him! That's what's the matter with half of our younger men; they sharpen lead-pencils, mix ink, and think they are drawing; or they walk down a stone wall and don't know any more what's behind it and what holds it up than a child. Mr. Morris can not only design a wall, but he can teach some first-class mechanics how to lay it."

Jack looked out the window and watched the fences fly past. For the moment he made no reply to Garry's long harangue—especially the part referring to the report. Anxious as he was to learn the result of the award, he did not want the facts from the chairman of the committee in advance of the confirmation by the Council.

"What is it you have on ice, Garry?" he asked at last with a laugh, yielding to an overpowering conviction that he must change the subject—"a new Corn Exchange? Nobody can beat you in corn exchanges."

"Not by a long shot, Jack,—got something better; I am five thousand ahead now, and it's all velvet."

"Gold mine, Garry?" queried Jack, turning his head. "Another Mukton Lode? Don't forget poor Charlie Gilbert; he's been clerking it ever since, I hear."

"No; a big warehouse company; I'll get the buildings later on. That Mukton Lode deal was a clear skin game, Jack, if it is your uncle, and A. B. & Co. got paid up for it downtown and uptown. You ought to hear the boys at the Magnolia talk about it. My scheme is not that kind; I'm on the ground floor, got some of the promoter's stock. When you are through with

### A Quick Hair Restorer

The Princess Hair Rejuvenator does its work quickly and satisfactorily. It has no odor, is as clear as water, contains no injurious ingredients, neither greasy nor sticky, and restores hair less than half gray or faded hair to its original color in ten days. Price \$1 postpaid.



Superfuous Hair, Moles etc., removed permanently by Electrolysis. Satisfaction assured always. Send stamp for booklet "F" and sample of Hair Rejuvenator.

Hiccott Dermatological Institute  
61 College Street, Toronto. Estab. 1892

Save \$100 and get tone, durability and all around excellence equal to the world's best pianos. The

### Sherlock-Manning

20TH CENTURY PIANO is undoubtedly "Canada's Biggest Piano Value" Write Dept. 4 for catalogue L. 67 THE SHERLOCK-MANNING PIANO CO., London (No street address necessary) Canada

### '1900' Gravity Washer

Sent free for one month's trial. Write for particulars. "1900" WASHER COMPANY 357 Yonge St., Toronto, Ont. (Factory 79-81 Portland Street, Toronto)

### You Can Earn a Good Living Raising Poultry

Get living expenses—Increase your income Thousands make money this way with SUCCESSFUL INCUBATORS SUCCESSFUL BROODERS Life Preservers—Life Preservers High-grade poultry—all leading varieties. Why don't you do the same? Learn how easy it is to start. Booklet "How to Make 40 out of 50 Chickens"—10¢. Catalogue FREE. Write today. Address: Deo Helms Incubator Co., 608 Second St., Deo Helms, Ia.

### Cotton Seed Meal

Good Luck Brand Guaranteed 41% Protein. Write for quotations. H. FRALEIGH, Box 1, FOREST, ONT. Also dealer in Flax Seed and Linseed Meal.

### WANTED

We have again advanced our prices for good quality cream. We could use yours. It will be worth your while to write us.

Toronto Creamery Company, Limited Toronto, Ontario

### CREAM WANTED

We are offering highest prices for cream to cheese factory patrons and others having a supply during the fall and winter. Express paid and cans supplied. Write us. VALLEY CREAMERY OF OTTAWA, LTD. 319 Sparks St., Ottawa

### Cream Wanted

Big price for butter fat. We want your cream. Write us; cans supplied.

GALT CREAMERY Galt, Ontario

**Richards**  
QUICK NAPHTHA  
THE  
WOMAN'S SOAP  
MADE IN CANADA

Please mention "The Farmer's Advocate."

your railroad contract and get your money let me know. I can show you a thing or two—open your eyes! No Wall Street racket, remember,—just a plain business deal."

"There won't be much money left over, Garry, from the 'fill' and tunnel work, if we keep on. We ought to have a cyclone next to finish us with; we've had about everything else."

"You're all through, Jack," replied Garry with emphasis.

"I'll believe that when I see it," said Jack with a smile.

"I tell you, Jack, you are all through. Do you understand? Don't ask me any questions and I won't tell you any lies. The first thing that strikes you will be a check, and don't you forget it!" Jack's heart gave a bound. The information had come as a surprise and without his aid, and yet it was none the less welcome. The dreaded anxiety was over; he knew now what the verdict of the Council would be. He had been right from the first in this matter, and Garry had not failed despite the strong political pressure which must have been brought against him. The new work now would go on and he and Ruth could go to Morfordsburg together! He could already see her trim, lovely figure in silhouette against the morning light, her eyes dancing, her face aglow in the crisp air of the hills.

Garry continued to talk on as they sped into the city, elaborating the details of the warehouse venture in which he had invested his present and some of his future commissions, but his words fell on stony ground. The expected check was the only thing that filled Jack's thoughts. There was no doubt in his mind now that the decision would be in MacFarlane's favor, and that the sum, whether large or small, would be paid without delay.—Garry being treasurer and a large amount of money being still due McGowan on the embankment and boulevard. It would be joyous news to Ruth, he said to himself, with a thrill surging through his heart.

Jack left Garry on the Jersey side and crossed alone. The boy loved the salt air in his face and the jewelled lights flashed from the ever-restless sea. He loved, too, the dash and vim of it all. Forcing his way through the crowds of passengers to the forward part of the boat, he stood where he could get the full sweep of the wonderful panorama:

The jagged purple line of the vast city stretching as far as the eye could reach; with its flat-top, square-sided, box-like buildings, with here and there a structure taller than the others; the flash of light from Trinity's spire, its cross aflame; the awkward, crab-like movements of innumerable ferry-boats, their gaping alligator mouths filled with human flies; the impudent, nervous little tugs, spitting steam in every passing face; the long strings of sausage-linked canalers kept together by grunting, slow-moving tows; the great floating track-yards bearing ponderous cars—eight days from the Pacific without break of bulk; the slippy, far-reaching fingers of innumerable docks clutching prey of barge, steamer, and ship; the stately ocean-liner moving to sea, scattering water-bugs of boats, scows and barges as it glided on its way—all this stirred his imagination and filled him with a strange resolve. He, too, would win a place among the masses—Ruth's hand fast in his.

(To be continued.)

### Santa Claus and Little Billee.

By John Kendrick Bangs.

Copyright, The Frank A. Munsey Co. He was only a little bit of a chap, and so, when for the first time in his life he came into close contact with the endless current of human things, it was as hard for him to "stay put" as for some wayward little atom of flotsam and jetsam to keep from tossing about in the surging tides of the sea.

His mother had left him there in the big toy-shop, with instructions not to move until she came back, while she went off to do some mysterious errand. She thought, no doubt, that with so many beautiful things on every side to delight his eye and hold his attention, strict obedience to her commands would

not be hard. But, alas! the good lady reckoned not upon the magnetic power of attraction of all those lovely objects in detail. She saw them only as a mass of wonders which, in all probability, would so dazzle his vision as to leave him incapable of movement; but Little Billee was not so indifferent as all that.

When a phonograph at the other end of the shop began to rattle off melodious tunes and funny jokes, in spite of the instructions he had received, off he pattered as fast as his little legs would carry him to investigate. After that, forgetful of everything else, finding himself caught in the constantly moving stream of Christmas shoppers, he was borne along in the restless current until he found himself at last out upon the street—alone, free, and independent.

It was great fun at first. By and by, however, the afternoon waned; the sun, as if anxious to hurry along the dawn of Christmas Day, sank early to bed; and the electric lights along the darkened highway began to pop out here and there, like so many merry stars come down to earth to celebrate the gladdest time of all the year. Little Billee began to grow tired; and then he thought of his mama, and tried to find the shop where he had promised to remain quiet until her return. Up and down the street he wandered until his little legs grew weary; but there was no sign of the shop, nor of the beloved face he was seeking.

Once again, and yet once again after that, did the little fellow traverse that crowded highway, his tears getting harder and harder to keep back, and then—joy of joys—whom should he see walking slowly along the sidewalk but Santa Claus himself! The saint was strangely decorated with two queer-looking boards, with big red letters on them, hung over his back and chest; but there was still that same kindly, gray-bearded face, the red cloak with the fur trimmings, and the same dear old cap that the children's friend had always worn in the pictures of him that Little Billee had seen.

With a glad cry of happiness, Little Billee ran to meet the old fellow, and put his hands gently into that of the saint. He thought it very strange that Santa Claus's hand should be so red and cold and rough, and so chapped; but he was not in any mood to be critical. He had been face to face with a very disagreeable situation. Then, when things had seemed blackest to him, everything had come right again; and he was too glad to take more than passing notice of anything strange and odd.

Santa Claus, of course, would recognize him at once, and would know just how to take him back to his mama at home—wherever that might be. Little Billee had never thought to inquire just where home was. All he knew was that it was a big gray stone house on a long street somewhere, with a tall iron railing in front of it, not far from the park.

"Howdidoo, Mr. Santa Claus?" said Little Billee, as the other's hand unconsciously tightened over his own.

"Why, howdidoo, kiddie?" replied the old fellow, glancing down at his new-found friend, with surprise gleaming from his deep-set eyes. "Where did you drop from?"

"Oh, I'm out!" said Little Billee bravely. "My mama left me a little while ago while she went off about something, and I guess I got lost."

"Very likely," returned the old saint with a smile. "Little two-by-four fellers are apt to get lost when they start in on their own hook, specially days like these, with such crowds hustlin' around."

"But it's all right now," suggested Little Billee hopefully. "I'm a found again, ain't I?"

"Oh, yes, indeed, you're found all right, kiddie!" Santa Claus agreed.

"And pretty soon you'll take me home again, won't you?" said the child.

"Surest thing you know!" answered Santa Claus, looking down upon the bright but tired little face with a comforting smile. "What might your address be?"

## St. Lawrence Sugar



### Children Need Sugar

Pure sugar is necessary to the health of young or old. Good home-made candy, sugar on porridge, fruit or bread—not only pleases but stimulates.

Buy St. Lawrence Extra Granulated in bags and be sure of the finest pure cane sugar, untouched by hand from factory to your kitchen.

Bags 100 lbs., 25 lbs., 20 lbs., Cartons 5 lbs., 2 lbs.

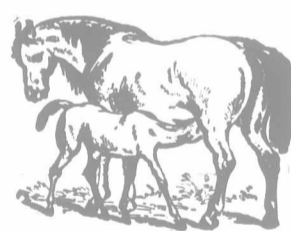
FULL WEIGHT GUARANTEED. Sold by best dealers.

St. Lawrence Sugar Refineries, Limited, - Montreal.

### Save Your Foals USE

## Foaline

TRADE MARK REGISTERED



A useful and instructive booklet on NAVEL DISEASE and JOINT-ILL. It contains many testimonials and references from users, and may be had by writing to—

Wallen Drug Co., Winnipeg, Canada

For Sale: Gallant Baron [8003] (13876) Sired by Baron's Pride (9122). The greatest sire Scotland has ever had. Gallant Baron is 8 years old, sound and right in every way; a splendid foal-getter and a most beautiful horse. He is full brother to Bowhill Baron, stud horse for the Colony Stock Farm, B. C. This horse has stood in this neighborhood since a two-year-old, and it becomes necessary to part with him on account of so many of his get. There is no better stock horse to be found, and his colts will be shown by the dozen. He will be sold for half the price that he could be bought for from any importer. Brandon Bros., Forest, Lambton Co. Ont. L.-D. Phone.

### CUSTOM ROBE AND FUR TANNING

Send your Cattle and Horse Hides, Furs and other Skins to me, and have them tanned soft and pliable for Robes, Coats, Furs, etc.

B. F. BELL, DELHI, ONT.

Strong Sleek Horses

"MAPLE LEAF" Oil Cake Meal Contains over 25 Protein. Contains over 35 Carbo Hydrates. Write today for free sample and prices. The Can-da Linseed Oil Mills, L. d. Toronto and Montreal.

Mention this Paper

"My what?" asked Little Billee.

"Your address," repeated Santa Claus. "Where do you live?"

The answer was a ringing peal of childish laughter.

"As if you didn't know that!" cried Little Billee, giggling.

"Ha, ha!" laughed Santa Claus. "Can't fool you, can I? It would be funny if, after keeping an eye on you all these years since you was a babby, I didn't know where you lived, eh?"

"Awful funny," agreed Little Billee. "But tell me, Mr. Santa Claus, what sort of a boy do you think I have been?" he added with a shade of anxiety in his voice.

"Pretty good—pretty good," Santa Claus answered, turning in his steps and walking back again along the path he had just traveled—which Little Billee thought was rather a strange thing to do. "You've got more white marks than black ones—a good many more—a hundred and fifty times as many, kiddie. Fact is, you're all right—'way up among the good boys; though once or twice last summer, you know—"

"Yes, I know," said Little Billee meekly, "but I didn't mean to be naughty."

"That's just what I said to the book-keeper," said Santa Claus, "and so we gave you a gray mark—half white and half black—that doesn't count either way, for or against you."

"Thank you, sir," said Little Billee, much comforted.

"Don't mention it; you are very welcome, kiddie," said Santa Claus, giving the youngster's hand a gentle squeeze.

"Why do you call me 'kiddie' when you know my name is Little Billee?" asked the boy.

"Oh, that's what I call all good boys," explained Santa Claus. "You see, we divide them up into two kinds—the good boys and the naughty boys—and the good boys we call kiddies, and the naughty boys we call caddies, and there you are."

Just then Little Billee noticed for the first time the square boards that Santa Claus was wearing.

"What are you wearing those boards for, Mr. Santa Claus?" he asked.

If the lad had looked closely enough he would have seen a very unhappy look come into the old man's face, but there was nothing of it in his answer.

"Oh, those are my new-fangled back-and-chest protectors, my lad," he replied. "Sometimes we have bitter winds blowing at Christmas, and I have to be ready for them. It wouldn't do for Santa Claus to come down with the sneezes at Christmastime, you know—no, sirree! This board in front keeps the wind off my chest, and the one behind keeps me from getting rheumatism in my back. They are a great protection against the weather."

"I'll have to tell my papa about them," said Little Billee, much impressed by the simplicity of this arrangement. "We have a glass board on the front of our ortymobile to keep the wind off Henry—he's our shuffler—but papa wears a fur coat, and sometimes he says the wind goes right through that. He'll be glad to know about these boards."

"I shouldn't wonder," smiled Santa Claus. "They aren't very becoming, but they are mighty useful. You might save up your pennies and give your papa a pair like 'em for his next Christmas."

Santa Claus laughed as he spoke, but there was a catch in his voice which Little Billee was too young to notice.

"You've got letters printed there," said the boy, peering around in front of his companion. "What do they spell?" "You know I haven't learned to read yet."

"And why should you know how to read at your age?" said Santa Claus. "You're not more than—"

"Five last month," said Little Billee proudly. "It was such a great age!"

"My, as old as that?" cried Santa Claus. "Well, you are growing fast! Why, it don't seem more than yesterday that you was a pink-cheeked baby, and here you are big enough to be out alone!"

That's more than my little boy is able to do."

Santa Claus shivered slightly, and Little Billee was surprised to see a tear glistening in his eye.

"Why, have you got a little boy?" he asked.

"Yes, Little Billee," said the saint. "A poor white-faced little chap, about a year older than you, who—well, never mind, kiddie—he's a kiddie, too—let's talk about something else, or I'll have icicles in my eyes."

"You didn't tell me what those letters on the board spell," said Little Billee.

"Merry Christmas to Everybody!" said Santa Claus. "I have the words printed there so that everybody can see them; and if I miss wishing anybody a merry Christmas he'll know I meant it just the same."

"You're awful kind, aren't you?" said Little Billee, squeezing his friend's hand affectionately. "It must make you very happy to be able to be so kind to everybody!"

## II.

Santa Claus made no reply to this remark, beyond giving a very deep sigh, which Little Billee chose to believe was evidence of a great inward content. They walked on now in silence, for Little Billee was beginning to feel almost too tired to talk, and Santa Claus seemed to be thinking of something else. Finally, however, the little fellow spoke.

"I guess I'd like to go home now, Mr. Santa Claus," he said. "I'm tired, and I'm afraid my mama will be wondering where I've gone to."

"That's so, my little man," said Santa Claus, stopping short in his walk up and down the block. "Your mother will be worried, for a fact; and your father, too—I know how I'd feel if my little boy got losted and hadn't come home at dinner-time. I don't believe you know where you live, though—now, honest! Come! 'Fess up, Billee, you don't know where you live, do you?"

"Why, yes, I do," said Little Billee. "It's in the big grey stone house with the iron fence in front of it, near the park."

"Oh, that's easy enough!" laughed Santa Claus nervously. "Anybody could say he lived in a gray stone house with a fence around it, near the park; but you don't know what street it's on, nor the number, either. I'll bet fourteen wooden giraffes against a monkey on a stick!"

"No, I don't," said Little Billee frankly; "but I know the number of our ortymobile. It's—'N. Y.'"

"Fine!" laughed Santa Claus. "If you really were lost, it would be a great help to know that; but not being lost, as you ain't, why, of course, we can get along without it. It's queer you don't know your last name, though."

"I do, too, know my last name!" blurted Little Billee. "It's Billee. That's the last one they gave me, anyhow."

Santa Claus reflected for a moment, eyeing the child anxiously.

"I don't believe you even know your papa's name," he said.

"Yes, I do," said Little Billee indignantly. "His name is Mr. Harrison."

"Well, you are a smart little chap," cried Santa Claus gleefully. "You got it right the very first time, didn't you? I really didn't think you knew. But I don't believe you know where your papa keeps his bake-shop, where he makes all those nice cakes and cookies you eat."

Billee began to laugh again.

"You can't fool me, Mr. Santa Claus," he said. "I know my papa don't keep a bake-shop just as well as you do. My papa owns a bank."

"Splendid! Made of tin, I suppose, with a nice little hole at the top to drop pennies into?" said Santa Claus.

"No, it ain't either!" retorted Little Billee. "It's made of stone, and has more than a million windows in it. I went down there with my mana to papa's office the other day, so I guess I ought to know."

"Well, I should say so," said Santa Claus. "Nobody better. By the way, Billee, what does your mama call your

## The Farmer Finds

that the makers of PURITY FLOUR are always in the market for the highest grade of Manitoba Hard Wheat. We operate nearly a hundred Elevators in the choicest Western wheat country to secure the world's best wheat for making the world's best flour.

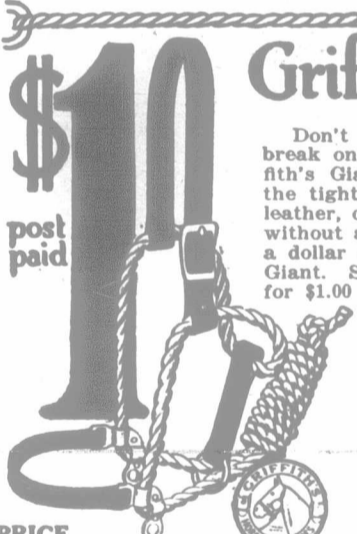


# PURITY FLOUR

More Bread and Better Bread—Better Pastry Too

## Two halters for the price of one

You haven't a horse that can break this Giant Halter. You can't get the same strength or as tight a hold anywhere under \$2.00.



## Griffith's Giant Halters

Don't let a strong young colt pull out of halter or break one. It's likely to teach him a bad habit. Griffith's Giant Halter will hold him—the harder he pulls the tighter it holds. Strong, well-sewn double harness leather, or Russett belting leather, and 1/4 inch hard rope without a weak spot or a wearing point! You can save a dollar and get a better halter by asking for Griffith's Giant. Sold in stores everywhere, or sent, charges paid, for \$1.00 (including shank)—\$1.25 west of Fort William. Write TO-DAY.

### A Big List of Griffith's Money Savers

Halters and harness specialties keep our big plant busy. We make them cheaper because we make tremendous quantities. Get a full list of bargains. Ask for "Hold Your Horses"—a free book. Send for a Griffith's Handy Rope Tie if your dealer hasn't got it—a new idea, can't slip, can't break—25c prepaid (30 cts. West of Fort William), cheaper than you could make it.

Dealers Everywhere Sell Griffith's Goods  
G. L. GRIFFITH & SON Dept. A  
Stratford, Ont.

PRICE INCLUDES SHANK

This tag on the genuine. Look for it.

## Clydesdales and Percherons

I have not exhibited at any shows during 1914. I am still in the horse business, and at present have the best lot of Stallions and Mares I ever had at any one time, 29 head: 17 Clyde Stallions and 4 Mares, 5 Percheron Stallions and 3 Mares; a visit to my stables will convince you I have more high-class horses than can be found in any one stable in Canada, and won't be undersold by any dealer in Canada, always a pleasure to show stock to intending purchasers, sale or no sale.

T. H. HASSARD, - - MARKHAM, P.O., G.T.R.  
Locust Hill Station only 3 miles, C.P.R. Long-Distance Phone.

## 1914 Stallions—CLYDESDALES—Fillies 1914

We made the grade on a darkened ship without meeting a Kaiser cruiser. Our 1914 importation are home. Stallions and fillies especially selected for character, quality and breeding. If you want a topper, come and see them.

Smith & Richardson, Columbus P.O.

Myrtle C.P.R.

Brooklin G.T.R.

A few choicely-bred young stallions always on hand and for sale. Prices and terms right. Visitors welcome.

BARBER BROS.

GATINEAU PT. QUE.



Imp.—Clydesdales, Stallions and Fillies—Imp.  
We have had lately landed, an exceptionally choice importation of Stallions and Fillies. They have the big size, the clean flat quality bone and the most fashionable breeding. Our prices are consistent with the times.

JOHN A. BOAG & SON

QUEENSVILLE, ONTARIO

When writing advertisers, kindly mention "The Farmer's Advocate"

The Most Popular Feed  
in Canada To-day is

Good Luck Brand  
**Cotton Seed  
Meal**

Here is the reason :

1. It has proven itself to possess a feeding value equal to more than twice that of good wheat bran. (See Ont. Agr. College Report, 1911, page 144.)
2. It contains more protein than any other mill product.
3. It is naturally a great milk producer.
4. It is guaranteed with the Dominion Government to contain not less than 41 per cent. of protein. It frequently contains more than this amount. Wheat bran contains only 14 per cent. protein.
5. Good Luck Brand Cotton Seed Meal sells at a reasonable price.

WE pride ourselves on our "Good Luck" Brand Cotton Seed Meal, and so will you when you once commence feeding it. Do not allow your dealers to substitute. Insist on the bag with the "Good Luck" tag. There are plenty of cheaper Cotton Seed Meals, but their quality is inferior, and oftentimes they are very dangerous to feed.

If your dealer does not handle "Good Luck" Brand Cotton Seed Meal, write us direct. We can supply carlots or less, and the smallest order will be carefully looked after and will receive our immediate attention.

We carry a stock of this high-grade Cotton Seed Meal at the following points, and can quote prices appearing below:

LONDON	TORONTO	MONTREAL
\$30.00	\$31.00	\$32.00
BELLEVILLE	PRESCOTT	
\$32.00	\$32.00	

These are ton-lot prices. Same price on all orders except carlot orders. Can you handle a carlot for your neighbors or your club? On less than ton lots the price is 5 cents more per 100 pounds. No orders accepted for less than 500 pounds.

TERMS: Cash with order. (If cheque is sent be sure to add exchange.)

NOTICE: State definitely from which point you desire us to make shipment. Address all communications to

**Crampsey & Kelly**  
TORONTO ONTARIO  
"The Home of High Quality Feeds"

**ABSORBINE**  
TRADE MARK REG. U.S. PAT. OFF.

will reduce intamed, swollen Joints, Sprains, Bruises, Soft Bunches; Heals Boils, Poll Evil, Quittor, Fistula, or any unhealthy sore quickly as it is a positive antiseptic and germicide. Pleasant to use; does not blister under bandage or remove the hair, and you can work the horse. \$2.00 per bottle, delivered. Book 7 K free.

**ABSORBINE, JR.**, antiseptic liniment for manking Reduces Painful, Swollen Veins, Gout, Wens, Strains Bruises, stops pain and inflammation. Price \$1.00 per bottle at dealers or delivered. Will tell you more if you write Manufactured only by **W. F. YOUNG, P.D.F. 258 Lyman's Bldg., Montreal, Can.**

**FROST BITES**  
quickly relieved by using

**Douglas' Egyptian Liniment**

It stops bleeding instantly and will prevent Blood Poisoning. For Sale by all Dealers. Let us send you a sample.

**DOUGLAS & CO., NAPANEE, ONT.**

papa? "Billee," like you?" he added. "Oh, no, indeed," returned Little Billee. "She calls him 'papa,' except once in a while when he's going away, and then she says, 'Good-by, Tom.'"

"Fine again!" said Santa Claus, blowing upon his fingers, for, now that the sun had completely disappeared over in the west, it was getting very cold. "Thomas Harrison, banker," he muttered to himself. "What, with the telephone-book and the city directory, I guess we can find our way home with Little Billee."

"Do you think we can go now, Mr. Santa Claus?" asked Little Billee, for the cold was beginning to cut through his little coat, and the sandman had started to scatter the sleepy-seeds all around.

"Yes, sirree!" returned Santa Claus promptly. "Right away off now, instantly at once! I'm afraid I can't get my reinddeer here in time to take us up to the house, but we can go in the cars—hum! I don't know whether we can or not, come to think of it. Ah, do you happen to have ten cents in your pocket?" Santa added with an embarrassed air. "You see, I've left my pocketbook in the sleigh with my toy-money, and they won't take that on the cars."

"I got twenty-five cents," said Little Billee proudly, as he dug his way down into his pocket and brought the shining silver piece to light. "You can have it if you want it."

"Thank you," said Santa Claus, taking the proffered coin. "We'll start home right away; only come in here first while I telephone to Santaville, telling the folks where I am."

He led the little fellow into a public telephone station, where he eagerly scanned the names in the book. At last it was found—"Thomas Harrison, 7654 Plaza." And then, in the seclusion of the telephone-booth, Santa Claus sent the gladdest of all Christmas messages over the wire to two distracted persons: "I have found your boy wandering in the street. He is safe, and I will bring him home right away."

### III.

Fifteen minutes later there might have been seen the strange spectacle of a foot-sore Santa Claus leading a sleepy little boy up Fifth Avenue to a cross-street, which shall be nameless. The boy vainly endeavored to persuade his companion to "come in and meet mama."

"No, Billee," the old man replied sadly, "I must hurry back. You see, kiddie, this is my busy day. Besides, I never go into a house except through the chimney. I wouldn't know how to behave, going in at a front door."

But it was not to be as Santa Claus willed, for Little Billee's papa, and his mama, and his brothers and sisters, and the butler and the housemaids, and two or three policemen, were waiting at the front door when they arrived.

"Aha!" said one of the police, seizing Santa Claus roughly by the arm. "We've landed you, all right! Where have you been with this boy?"

"You let him alone!" cried Little Billee, with more courage than he had ever expected to show in the presence of a policeman. "He's a friend of mine."

"That's right, officer," said Little Billee's father; "let him alone—I haven't entered any complaint against this man."

"But you want to look out for these fellers, Mr. Harrison," returned the officer. "First thing you know they'll be makin' a trade of this sort of thing."

"I'm no grafter!" retorted Santa Claus indignantly. "I found the little chap wandering along the street, and as soon as I was able to locate where he lived I brought him home. That's all there is to it."

"He knew where I lived all along," laughed Little Billee, "only he pretended he didn't, just to see if I knew."

"You see, sir," said the officer, "it won't do him any harm to let him cool his heels—"

"It is far better that he should warn them, officer," said Mr. Harrison kindly. "And he can do that here, come in, my man," he added, turning to Santa Claus with a grateful smile. "Just for a minute, anyhow. Mrs.

Harrison will wish to thank you for bringing our boy back to us. We have had a terrible afternoon."

"That's all right, sir," said Santa Claus modestly. "It wasn't anything, sir. I didn't really find him—it was him as found me, sir. He took me for the real thing, I guess."

Nevertheless, Santa Claus, led by Little Billee's persistent father, went into the house. Now that the boy could see him in the full glare of many electric lights, his furs did not seem the most gorgeous thing in the world. When the flapping front of his red jacket flew open the child was surprised to see how ragged was the thin gray coat it covered; and as for the good old saint's comfortable stomach—strange to say, it was not!

"I—I wish you all a merry Christmas," faltered Santa Claus; "but I really must be going, sir—"

"Nonsense!" cried Mr. Harrison. "Not until you have got rid of this chill, and—"

"I can't stay, sir," said Santa. "I'll lose my job if I do."

"Well, what if you do? I'll give you a better one," said the banker.

"I can't—I can't!" faltered the man.

"I—I've got a Little Billee of my own at home waitin' for me, sir. If I hadn't," he added fiercely, "do you suppose I'd be doin' this?" He pointed at the painted boards and shuddered. "It's him as has kept me from—from the river!" he muttered hoarsely; and then this dispenser of happiness to so many millions of people all the world over sank into a chair, and, covering his face with his hands, wept like a child.

"I guess Santa Claus is tired, papa," said Little Billee, snuggling up closely to the old fellow and taking hold of his hand sympathetically. "He's been walkin' a lot to-day."

"Yes, my son," said Mr. Harrison gravely. "These are very busy times for Santa Claus, and I guess that, as he still has a hard night ahead of him, James had better ring up Henry and tell him to bring the car around right away, so that we may take him back—to his little boy. We'll have to lend him a fur coat to keep the wind off, too, for it is a bitter night."

"Oh," said Little Billee, "I haven't told you about these boards he wears. He has 'em to keep the wind off, and they're fine, papa!" Little Billee pointed to the two sign-boards which Santa Claus had leaned against the wall. "He says he uses 'em on cold nights," the lad went on. "They have writing on 'em, too. Do you know what it says?"

"Yes," said Mr. Harrison, glancing at the boards. "It says, 'If You Want a Good Christmas Dinner for a Quarter, Go to Smithers's Cafe.'"

Little Billee roared with laughter. "Papa's trying to fool me, just as you did when you pretended not to know where I lived, Santa Claus," he said, looking up into the old fellow's face, his own countenance brimming over with mirth. "You mustn't think he can't read, though," the lad added hastily. "He's only joking."

"Oh, no, indeed, I shouldn't have thought that!" replied Santa Claus smiling through his tears. "I've been joking, have I?" said Little Billee's papa. "Well, then Mr. Billee, suppose you inform me what it says."

"Merry Christmas to Everybody," said Little Billee proudly. "I couldn't read it myself, but he told me what it said. He has it printed there so that if he misses saying it to anybody they'll know he means it just the same."

"By Jove, Mr. Santa Claus," cried Little Billee's papa, grasping the old man warmly by the hand, "I owe you ten million apologies! I haven't believed in you for many a long year; but now, sir, I take it all back. You do exist, and, by the great horn spoon, you are the real thing!"

### IV.

Little Billee had the satisfaction of acting as host to Santa Claus at a good luscious dinner, which Santa Claus must have enjoyed very much, because, when explaining why he was so hungry, it came out that the poor old chap had been so busy all day that he had not had time to get any lunch—no, not even one of those good dinners at

**Lump Jaw**

The first remedy to cure Lump Jaw was

**Fleming's Lump Jaw Cure**

and it remains to-day the standard treatment, with years of success back of it, known to be a cure and guaranteed to cure. Don't experiment with substitutes or imitations. Use it, no matter how old or bad the case or what else you may have tried—your money back if Fleming's Lump Jaw Cure ever fails. Our fair plan of selling, together with exhaustive information on Lump Jaw and its treatment, is given in

**Fleming's Vest-Pocket Veterinary Adviser**

Most complete veterinary book ever printed to be given away. Durable bound, indexed and illustrated. Write us for a free copy.

**FLEMING BROS., Chemists**  
25 Church Street Toronto, Ont.



### COMMISSION MEN PAY MORE.

Dealers at the Stock Yards pay more for cattle that have been dehorned. The hides are worth more, and the flesh has less bruises. It pays to dehorn your cattle. Write for booklet telling about the KEYSTONE DEHORNER.

R. H. McKENNA, 219 Robert St., Toronto.

### ABERDEEN-ANGUS CATTLE OXFORD SHEEP

For Sale—Good young show bulls and females; also a few Oxford rams. Thos. B. Broadfoot, Fergus, Ontario. G.T.R. and C.P.R.

### ABERDEEN-ANGUS CATTLE

For Sale—Several young bulls from the imported sire and prize-winner, "Pradamere." Address: A. Dinsmore, Manager, "Grape Grange" Farm Clarksburg, Ontario.

### Beaver Hill Aberdeen - Angus

Choice, young Bulls fit for service. Females all ages, for sale. Alex. McKinney R.R. No. 2, Erin, Co. Wellington, Ontario

### Twoedhill Aberdeen - Angus

Excellent young Bulls of serviceable ages. Heifers in calf, etc. James Sharp, R.R. No. 1, Terra Cotta, Ont. C.P.R. and G.T.R., Cheltenham Station.

### SHORTHORNS

Locharbar Stock Farm is offering a choice lot of young bulls of breeding age, some cows and heifers the get of Broadkirk Prince (Imp.) a noted milk and beef-producing strain, some heifers at 1st calf giving 35 to 40 lbs. milk a day. Prices and terms reasonable. Also M. Bronze Turkey pairs and rios furnished not akin.

D. A. GRAHAM, Wyoming, Ont.

### SHORTHORNS

3 bulls from 7 to 15 months, some are herd headers both in quality size and breeding, some are thick, fleshy, sappy bulls that will get good steers, also 10 heifers and a few young cows bred on milking lines; prices easy. Write me your wants.

Stewart M. Graham, Lindsay, Ont.

### Spring Valley Shorthorns

Herd headed by the two great breeding bulls, Newton Ringleader (Imp.) 73783, and Nonpareil Ramsden 83422. Can supply a few of either sex.

KYLE BROS., DRUMBO, ONTARIO  
Phone and Telegraph via Ayr.

### Oakland 62 Shorthorns

Visitors say our herd, numbering 62 head, look like good breeders, feeders and milkers. Now that is just what they are, many fine heifers and bulls for sale. No fancy prices.

JNO. ELDER & SONS, - HENSALL, ONT.

DR. BELL'S Veterinary Medical Wonder. 10,000 \$1.00 bottles to horsemen who will give the Wonder a fair trial. Guaranteed for inflammation of the Lungs, Bowels, Kidneys, Fevers, Distempers, etc. Send 10 cents for mailing, packing, etc. Agents wanted. Write address plainly. Dr. Bell, V.S., Kingston, Ont.

Fletcher's Shorthorns. Imp. stock bull, Royal Bruce=55038=(89909) 273853, for sale or exchange. Royal Bruce is a choice-bred Bruce Mayflower; was imported by Mr. Arthur Johnston for his own use. Young stock of either sex for sale. Geo. D. Fletcher, Erin, R.R. No. 2. Long-Distance Telephone. Erin Station, C.P.R.

1854 Maple Lodge Stock Farm 1914

We have sold all the sheep advertised. Have now for sale three young bulls of fine quality and nicely bred for both beef and milk. Come and see our herd.

Miss C. Smith, - Clandeboye, R. R. 1

### 6 SHORTHORN BULLS

25 females, reds and roans, servicable, best type and quality, size: cows milking up to 50 lbs R.R. No. 3, THOMAS GRAHAM Port Perry Ont.

### Spruce Lodge Shorthorns and Leicesters.

Have always on hand to offer a good selection of young bulls and heifers from the best milking families; also a choice selection of Leicesters of both sexes, including a choice imp. 3-year-old ram, suitable for show purposes. W. A. Douglas, Caledonia, Ont., R.R. No. 2

Smithers's father had dinner Hen and, bidd Santa Claus went out o

Christmas Billee awo rich gifts, tures with the reality dream thin light when than himse little fello spend the him a letter This was w 'Dear Litt

"You mu your papa le boy who little boy, have him f Day. Tre sake, and worth lovin get me, Li often in the will see me to Twenty-continue m in the Pala ful window all good cl "Good-by piest of h all of you

When Litt to him the little tear upon Little "Why, w mana?" h

"With ha his mother yesterday little boy "You hav Christmas. Billee, taki hand. Thi with a sr might have of Santa C

As for th seen 'him ap bank there John, who Claus's voi goes down home at n into the b trim, just f that it is

Indeed, the sudden and Little Bille "Have Street, Jo

"Twenty-messenger, much puzzl "Why, itz rather vagu "Well, to said John, Third Stre beautiful you know, travel. I'

to go abro "Abroad! ning at J "Why, itz abroad! Twenty-See

"Really? "Remondus Who'd ha that's the a week of vacation t From w that his su Santa Cla without fo

GRANDSON OF THE P

For the solstein sa granddaugh one, Pontic slection to without re portunity

Smithers's cafe, to which Little Billee's father had jokingly referred. And after dinner Henry came with the automobile, and, bidding everybody good night, Santa Claus and Little Billee's papa went out of the house together.

Christmas morning dawned, and Little Billee awoke from wonderful dreams of rich gifts, and of extraordinary adventures with his new-found friend, to find the reality quite as splendid as the dream things. Later, what was his delight when a pale boy, not much older than himself—a male, thin, but playful little fellow—arrived at the house to spend the day with him, bringing with him a letter from Santa Claus himself! This was what the letter said:

"Dear Little Billee:  
 "You must not tell anybody except your papa and your mama, but the little boy who brings you this letter is my little boy, and I am going to let you have him for a playfellow for Christmas Day. Treat him kindly for his papa's sake, and if you think his papa is worth loving tell him so. Do not forget me, Little Billee. I shall see you often in the future, but I doubt if you will see me. I am not going to return to Twenty-Third Street again, but shall continue my work in the Land of Yule, in the Palace of Good-Will, whose beautiful windows look out upon the homes of all good children.

"Good-by, Little Billee, and the happiest of happy Christmases to you and all of yours. Affectionately,  
 "SANTA CLAUS."

When Little Billee's mama read this to him that Christmas morning a stray little tear ran down her cheek and fell upon Little Billee's hand.

"Why, what are you crying for, mama?" he asked.

"With happiness, my dear little son," his mother answered. "I was afraid yesterday that I might have lost my little boy forever, but now—"

"You have an extra one thrown in for Christmas, haven't you?" said Little Billee, taking his new playmate by the hand. The visitor smiled back at him with a smile so sweet that anybody might have guessed that he was the son of Santa Claus.

As for the latter, Little Billee has not seen him again; but down at his father's bank there is a new messenger, named John, who has a voice so like Santa Claus's voice that whenever Little Billee goes down there in the motor to ride home at night with his papa, he runs into the bank and has a long talk with him, just for the pleasure of pretending that it is Santa Claus he is talking to. Indeed, the voice is so like that once a sudden and strange idea flashed across Little Billee's mind.

"Have you ever been on Twenty-Third Street, John?" he asked.

"Twenty-Third Street?" replied the messenger, scratching his head as if very much puzzled. "What's that?"

"Why, it's a street," said Little Billee rather vaguely.

"Well, to tell you the truth, Billee," said John, "I've heard tell of Twenty-Third Street, and they say it is a very beautiful and interesting spot. But, you know, I don't get much chance to travel. I've been too busy all my life to go abroad."

"Abroad!" roared Little Billee, grinning at John's utterly absurd mistake. "Why, Twenty-Third Street ain't abroad! It's up-town—near—oh, near—Twenty-Second Street."

"Really?" returned John, evidently tremendously surprised. "Well, well, well! Who'd have thought that? Well, if that's the case, some time when I get a week off I'll have to go and spend my vacation there!"

From which Little Billee concluded that his suspicion that John might be Santa Claus in disguise was entirely without foundation in fact.

**Gossip.**

**RANDOLPHS AND GRANDDAUGHTERS OF THE GREAT PONTIAC KORNDYKE BY AUCTION.**

For the first time in the history of Holstein sales in Canada, grandsons and granddaughters of the breed's greatest sire, Pontiac Korndyke, will be sold by auction to the highest bidder absolutely without reserve. This unparalleled opportunity for the Holstein breeders of

Ontario will be presented at the forced sale of the herd of Colver V. Robbins, on Wednesday, December 30, 1914. The sire of these richly-bred young things is King Korndyke Inka De Kol, a son of Pontiac Korndyke. He cost Mr. Robbins a great deal of money, but the high-class standard of his herd on the lines of official backing in their breeding, official R. O. M. and R. O. P. records, and superior individual excellence, made it an imperative duty to purchase a sire with breeding of a producing standard high enough to ensure his being capable of transmitting his ancestral qualities to his offspring, and now, after all these years of intelligent effort to get together a herd of Holsteins second to none, circumstances over which he has no control compel him to sell the result of his lifetime's work. It is a sore ordeal, but the breeders generally will get the benefit. The sale will be held at the farm. Conveyances will meet all morning trains at Fenwick, T. H. & B.; Perry, M. C. R., and Marchville, G. T. R., on the day of sale. Write for catalogue to Colver V. Robbins, Wellandport, R. R. No. 3.

**R. W. WALKER & SONS' HOLSTEINS.**

R. W. Walker & Sons, whose R. M. D. address is now Port Perry instead of Utica as formerly, and whose large herd of 4-per-cent. Holsteins (we say 4-per-cent. Holsteins because almost every one of them that has been in the R. O. M. and R. O. P. tests has showed a butter-fat test of 4 per cent. and over), and the great cow, Madam B. 3rd's Alma 2nd, that won championship honors in the dairy test at the Toronto November show last year has freshened again, and her tests this year run from 4-per-cent. to 5-per-cent. butter-fat, and all her daughters in milk have a test of 4 per cent. We started out to say that the herd are going into winter quarters in grand condition, and show their capabilities in their splendidly-balanced and developed udders. With their usual appreciation of using only the best in high-class sires on the herd, the Messrs. Walker have lately purchased a half-interest in the great bull, King Segis Pontiac Duplicate, whose thirteen nearest dams have records averaging 26.88 lbs., a son of King Segis Pontiac, with 80 A. R. O. daughters, he by King Segis, with 82 A. R. O. daughters, dam by King of the Pontiacs, with 89 A. R. O. daughters, he by Pontiac Korndyke, with 86 A. R. O. daughters. This is the best breeding the breed produces. He is thus three-quarters brother in blood to the \$50,000 King Segis Pontiac Alcartra. Assistant in service is Pontiac Hengerveld Pietertje, a grandson of Hengerveld De Kol, with 116 A. R. O. daughters. His dam is a daughter of Dutchland Sir Hengerveld Maplecroft, a brother of De Kol Ormelle, with a R. O. P. record of 29,591 lbs. All the younger things, including the several young bulls for sale, are the get of Imperial Pauline De Kol, whose fifteen nearest dams' records averaged 26 lbs.

**Trade Topic.**

**FAST MONTREAL-TORONTO-DETROIT-CHICAGO TRAIN SERVICE.**

These solid de luxe trains, carrying buffet-library-compartment-observation cars, electric-lighted standard sleepers, together with standard dining-car service between Montreal-Toronto-Detroit-Chicago, via Canadian Pacific and Michigan Central railroads, are known as "The Canadian," and operated daily through the Michigan Central twin tubes between Windsor and Detroit.

Westbound: Leaving Montreal 8.45 a.m., arriving Toronto 5.40 p.m.; leaving Toronto 6.10 p.m., leaving London 9.33 p.m., arriving Windsor 12.10 a.m., arriving Detroit 11.35 p.m. (central time); leaving Detroit 11.55 p.m., arriving Chicago 7.45 a.m.

Eastbound: Leaving Chicago 6.10 p.m. (central time); arriving Detroit (M.C.R. Depot) 12.35 a.m.; leaving Detroit (M.C.R. Depot) 12.43 a.m.; leaving Detroit (Fort Street) 11.40 p.m.; leaving Windsor (C.P.R.) 1.20 a.m. (Eastern time); leaving London 5.15 a.m.; arriving Toronto 8.30 a.m.; leaving Toronto 9.00 a.m., arriving Montreal 6.10 p.m.

Full particulars from Canadian Pacific ticket agents, or write M. G. Murphy, District Passenger Agent, Toronto.

**Make Your Stock Profitable**

How? By using CALDWELL'S STOCK FEEDS. These guaranteed, high-quality feeds have raised many a dairyman's margin of profit. We print and publish the analysis of each product, besides guaranteeing the ingredients to the Government.

**CALDWELL'S MOLASSES MEAL**

(84% Purest Cane Molasses and 16% Edible Moss)

A complete balanced ration—unequaled as a builder of cattle, horses, sheep and hogs. Contains food elements of great value that are lacking in the most expensive straight diet of cereals. Cuts down feed bills; makes ordinary feed more palatable and more beneficial. CALDWELL'S MOLASSES MEAL gives better results and saves money as well. Send for booklet.

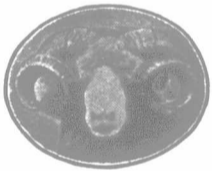
**CALDWELL'S Cream Substitute CALF MEAL**

contains Linseed, Wheat, Oat, Corn, Locust Bean, Pea and Molasses Meal in correct proportions to ensure highest results. Fully equal to whole milk for rearing calves. Enables you to sell your milk and yet raise just as good calves. Tests prove it without an equal for "weaning-up" purposes. Send for booklet.

**CALDWELL'S DAIRY MEAL**

A high protein, carefully-proportioned cow ration for the production of milk. Prepared from carefully-selected materials thoroughly re-cleaned, guaranteed free from mill sweepings, oat hulls or other cheap "fillers." Will get you bigger milk yields and keep your herd in prime condition. Send for booklet.

**The Caldwell Feed & Cereal Co., Limited**  
 Largest Feed Mills in Canada  
 DUNDAS, - - - ONTARIO



**Angus Bulls and Dorset Rams**

For Sale—Young bulls of the best Aberdeen Angus type. They are unexcelled for crossing in grade herds. Dorset Horn Ram Lambs at a low figure for immediate delivery. They are good. Write for prices.  
 FORSTER FARM, - - - OAKVILLE, ONT.

**ABERDEEN-ANGUS CATTLE**

**ELMPARK**

**SUFFOLK SHEEP**

Choice young bulls that have won their colors. Choice cows and heifers that have done the same. Suffolk flock headers of highest quality, also shearing and ewe lambs. Come where the best is bred for your breeding stock.  
 JAMES BOWMAN, GUELPH, ONTARIO

**1909—CANADA'S CHAMPION HEREFORD HERD—1914**  
 From 1909 to 1914 our herd has maintained their supremacy as Canada's Champion Herd. We have several 20-months' old bulls bred in the leading herds of the United States, and others got by our noted champion, Refiner, all of high-class quality. Females all ages. Get the best when selecting a herd-header. L. O. Clifford, Oshawa, Ont.

**100 ESCANA FARM SHORTHORNS 100**  
 For sale, 25 Scotch bull calves from 6 to 12 months; 25 Scotch heifers and young cows bred to Right Sort, imp., and Raphael, imp., both prize-winners at Toronto.

MITCHELL BROS., Props., Burlington P.O., Ont. Jos. McCrudden, Mgr. Farm 1/4 mile from Burlington Junction.

**PLEASANT VALLEY FARMS SHORTHORNS**

Herd headed by Imp. Loyal Scot. Have for sale, 10 high-class young bulls of herd-heading quality and several of the milking type. Also females of the leading families. Consult us before buying. Farm 11 miles east of Guelph: GEO. AMOS & SONS, MOFFAT, ONTARIO. C.P.R., 1/2 mile from station.

**10 Shorthorn Bulls, 9 Imported Clydesdale Mares**

Our bulls are all good colors and well-bred. We also have Shorthorn females of all ages. In addition to our imported mares, we have 7 foals and yearlings. Write for prices on what you require. Bell Telephone. W. G. PETTIT & SONS, Burlington Junction, G.T.R., 1/2 mile. Freeman, Ontario

**Scotch—SHORTHORNS—English**—If you want a thick, even fleshed heifer for either show or breeding purposes, or young cows with calves at foot, or a thick, mellow beautifully-fleshed young bull, or a right good milker bred to produce milk; remember I can surely supply your wants. Come and see. A. J. HOWDEN Myrtle C.P.R.; Brooklyn, G.T.R. COLUMBUS, P.O., ONT.

**Belmont Farm Shorthorns** Herd headed by "Nero of Cluny" (imp.) and Sunnyside "Marquis." For Sale—a number of young bulls and heifers, also young cows sired by "Missie Marquis" with calves at foot. F. W. SMITH & SON, R. R. No. 2, - SCOTLAND, ONTARIO - Long-Distance Telephone

**SALEM STOCK FARM HOME OF THE CHAMPIONS**

Special prices of Twenty Shorthorn Bulls during Winter Fair Week. Many of them are good enough to head the best herds. Others big and growthy that will sire the best kind of steers. Elora is only thirteen miles from Guelph. Three Trains daily each way. J. A. WATT, - - - ELORA, ONTARIO


**Woodholme Shorthorns and Berkshires**  
 Young bulls, cows and heifers of choicest Scotch breeding and high-class quality. Also young sows bred and ready to breed.  
 G. M. FORSYTH, - - - Claremont, P.O. and Stn., C.P.R.

**H. SMITH - HAY P.O., ONT.**

**12 SHORTHORN BULLS** and as many heifers for sale. Write your wants. You know the Harry Smith Standard.

**HIGH-CLASS SCOTCH SHORTHORNS**

We have a choice selection of richly-bred young herd headers, the thick, mellow, good doing kind. Visit our herd and make your own selection.  
 RICHARDSON BROS., - - - COLUMBUS, ONTARIO  
 Myrtle C.P.R.; Oshawa, C.N.O. and G.T.R.; Brooklyn, G.T.R. Sts.



**Purina Dairy Feed**

Gives very satisfactory results in tests of milk production.

Every ingredient used in its manufacture is a staple feed. No filler used.

Write us for circulars and prices.

The Chisholm Milling Co., Limited, Toronto

**20 ROSEDALE STOCK FARM SHORTHORN BULLS 20**

Some of them fit to head the best herds in the country. Some are from heavy milking dams. Six are from imported dams.

G.T.R. C.P.R. WESTON P.O. **J. M. GARDHOUSE** Street Railway and Long-Distance Telephone

**SHORTHORNS** I have 15 young Shorthorn bulls, some fit for service now. Part of them are bred and made so that they are fit to head the best herds in any country; some of them are of the thick, straight, good-feeding kind that will produce money-making cattle; some of them are bred from the best-milking Shorthorns, and the prices of all are moderate. I have SHROPSHIRE and COTSWOLD rams and ewes of all valuable ages. Write for what you want I can suit you in quality and price.

**Robert Miller, Stouffville, Ontario**

**Poplar Hall Shorthorns** If you want a herd-header of the highest breeding, visit our farm; sired by the great Uppermill Omega, Imp.; we have C. Butterfles and Lovelys, Marr Roan Ladys and Cinderellas, from 7 to 18 months of age.

MILNER BROS., R.R. No. 2, CLAREMONT, ONTARIO  
Claremont C.P.R. Pickering G.T.R. Greenburn C.N.R., Sta

**BULLS AND FEMALES** At greatly reduced prices, as my sale had to be called off on account of the weather. Herd must be reduced, as I am short of feed and stabling. Low prices for quick sale.

Myrtle, C. P. R. and G. T. R. **John Miller, Ashburn, Ont.**

**IRVINE DALE SHORTHORNS** Herd is headed by Gainford Select (a son of the great Gainford Marquis). A number young bulls of choice breeding and out of good milking strains. Also a few heifers.

J. Watt & Son :: Elora Station :: Salem, Ontario

**SHORTHORNS and CLYDESDALES** We have a nice bunch of bull Sept., and are offering females of all ages; have a choice lot of heifers bred to Clansman=87809= One stallion three years old, a big, good quality horse, and some choice fillies, all from imported stock.

A. B. & T. W. Douglas Long-Distance Phone Strathroy, Ontario

**Brampton Jerseys** We are busy. Sales were never more abundant. Our cows on yearly test never did better. We have some bulls for sale from Record of Performance cows. These bulls are fit for any show ring.

B. H. Bull & Son :: Brampton, Ontario

**Don Jerseys** Young bulls of breeding age, young cows and heifers got by our richly-bred stock bulls Fontaines Boyle and Eminent Royal Fern, and out of prize-winning and officially record dams.

David Duncan & Son, R.R. No. 1, Todmorden, Ontario

**Woodbine Holsteins** Young bulls and bull calves, sired by Duke Beauty Pieterje; sire's dam's record 32.52 lbs. butter, and his two granddams are each 30-lb cows, with 30-lb. daughter with 30-lb. granddaughter. Three generations of 30-lb. cows. If you want a bull that will prove his value as a sire, write:

A. KENNEDY & SON, R.R. No. 2, Paris, Ont.  
Stations: Ayr, C.P.R.; Paris, G.T.R.

**Holstein-Friesian Association of Canada** Application for registry, transfer and membership, as well as requests for blank forms and all information regarding the farmer's most profitable cow, should be sent to the Secretary of the Association,

W. A. CLEMONS, St. George, Ontario

**Maple Grove Holsteins** Do you know that Tidy Abbecker is the only cow in the world that produced three sons who have each sired 30-lb butter cows, and two daughters with records greater than her own? She was bred, reared and developed at Maple Grove. Do you want that blood to strengthen the transmitting power of your herd, at live and let live prices then write:—H. BOLLERT, TAVISTOCK, ONT. R.R. NO. 1

**Great Yearling Holstein Bull For Sale** out of the cow Victoria Burke with the wonderful record of 100 lbs. milk in 1 day, 686.6 lbs. in 7 days, 2,538.2 lbs. in 30 days and 30.82 lbs. of butter in 7 days, 122.08 lbs. of butter in 30 days. This cow ranked fourth in 1913 Records, 30 day class. The bull is sired by Fairview Korndyke Pontiac with ten sisters all with records over 30 lbs. butter in 30 days. Come and see or write:

JAMES A. CASKEY, - MADOC, ONT.

**BUY THE BEST 4 Holstein Bulls** ready for service and several calves. Females all ages, cows in R.O.P. and R.O.M. milking up to 19,000 pounds. Bulls in service—"King Segis Pontiac Duplicate" and "King Fayne Segis Clothilde."

R. M. HOLBY, R. R. 4, Port Perry, Ont.  
Manchester, G.T.R. 1177, C.P.R.

**The Maples Holstein** Herd offers sons of Prince Aggie Mechthilde from Wayne Calamity 2nd, Canadian champion 2-year-old for butter in R. O. P. test, 16,714 lbs. milk, 846 lbs. butter. These fellows are ready for service. Write for prices to WALBURN RIVERS, R.R. No. 5, Ingersoll, Ont.

**Holsteins, Yorkshires and Cotswolds.** For R.O.P. and untested females, bred to and calves of both sex sired by Ourville Sir Abbecker, whose 4-year-old dam gave 19,375 lbs. milk in 310 days. Also Yorkshires of both sex. Write: Richard Honey & Sons, Minster Farm, Brickley, Ont.

**Lakeside Ayrshires** The herd is headed by the well-known Auchinbrain Seafoam (Imp.)=35755= . A few young bulls for sale from Record of Performance Dams, imported and home-bred.

Geo. H. Montgomery, Proprietor Dominion Express Building, Montreal. D. McArthur, Manager, Phillipsburg, Que.

**Alancroft Dairy & Stock Farm** BEACONSFIELD, P. Q., CANADA A FEW Pure-bred Ayrshires and Pure-bred French-Canadian Bulls for Sale.

Correspondence or visit solicited. E. A. SHANAHAN, Secretary, Merchants Bank Building, Montreal, Canada

**High-Class Ayrshires** If you are richly-bred young bull out of a 50-lb. a-day and over cow, imported or Canadian-bred dam or sire, write me. Females all ages. Prices are easy.

D. A. MACFARLANE, KESLO, QUEBEC

**City View Ayrshires**—Present offering: Two yearling heifer and three 3-year-olds finishing their two-year-old test.

James Begg & Son, R. R. No. 1, St. Thomas

**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 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.

**Veterinary.**

**Lump on Shoulder.**

Mare has a lump on her shoulder. When she is used for work it enlarges and becomes sore. It has been blistered without results.

D. R.

Ans.—This is a fibrous tumor, and local applications will do little or no good. It must be carefully dissected out, the wound stitched, and then dressed three times daily until healed with an antiseptic, as a five-per-cent. solution of carbolic acid. It will be wise to get a veterinarian to operate.

V.

**Lumps on Fetlock.**

A year and a half ago a soft lump appeared on the front of the near fore fetlock of a colt now rising three years of age. I lanced this and pus escaped. The lump then became hard, and is now the size of a hen's egg. She is not lame. What can I apply to remove it permanently?

W. S. S.

Ans.—It is not probable that any application will remove it. It can be reduced to a greater or less extent by rubbing well once daily with the following liniment, viz.: Four drams each of iodine and iodide of potassium, mixed with four ounces each of alcohol and glycerine. It is probable that it could be removed by an operation by a veterinarian, but as it is so close to the joint none but a veterinarian should operate.

V.

**Inversion of Vagina.**

Heifer calves last January, and after calving she inverted the neck of the womb. My veterinarian treated her and applied a truss, and we placed a platform under her hind legs, and she got all right. She will be due to calve again in February, and is again inverting the neck of the womb.

C. J.

Ans.—It is not the neck of the womb, but the vagina that is inverted. Build a false bottom in her stall (the stall must be a narrow one with the sides running well back so that she cannot turn her hind part off) one foot higher behind than in front. Wash the inverted portion thoroughly with one part laudanum to ten parts water, then replace it and tie her in the stall. If she continues to press, inject a little of the solution of laudanum into the vagina occasionally. If this does not check the inversion, apply the truss again. The truss will not cause trouble, but, of course, must be removed when parturition commences. It will be wise not to breed her again, as the trouble will probably recur.

V.

**Partial Paralysis.**

Calf was kept in stable all summer and fed on skimmed milk, bran, oats and oat chop, and nice hay. When three months old I had to tie it, and I let it out three times weekly for exercise. It was fat and well until about 4½ months old, when it became lame or stiff. It is now 6 months old, and is very poor, and so stiff that it has great difficulty in rising. It eats well, and I am feeding one-half pail pulped turnips daily, with good hay, and a little molasses.

L. G. M.

Ans.—It is suffering from partial paralysis, no doubt caused by too high feeding and too little exercise. If, instead of being tied and allowed exercise only three times weekly after three months of age, it had been kept in a box stall or yard, or allowed plenty of exercise daily, it is probable it would have done all right. Give it one-half pint raw linseed oil, and repeat in twelve hours. If this does not cause purgation, repeat every twelve hours until it does. Follow up with twenty grains nux vomica three times daily. Continue giving it the pulped roots, good hay and bran, and chopped oats with the hulls sifted out, and keep in a comfortable box stall, as large as possible, or make some provision under which it can take regular exercise. If it will not exercise voluntarily, force it to exercise, and give a dose of raw oil whenever the symptoms indicate that it is needed.

V.

**Warts.**

Mare is troubled with warts, especially one between her hind legs, just posterior to the mammae. This has been removed three times, once by a knife, and twice by a cord tied tightly around it. It looks as though it might return. The mammae is slightly swollen.

R. M. A.

Ans.—Apply butter of antimony to the raw surface where the wart has been taken off once daily, with a feather. Pick off the scab occasionally in order to allow the dressing to reach the remains of the wart. If this does not check the re-growth, she must be cast and firmly secured, and all diseased tissue carefully dissected out. In some cases these growths are malignant, and the re-growth cannot be prevented. We do not think the swelling of the mammae will be serious unless it be involved with the growth.

V.

**Miscellaneous.**

**Sweet Clover.**

I have seen considerable in the papers this fall re sweet clover, and should like some information about it. The articles referred to seemed to take it for granted that everyone knew it. Now, I confess my ignorance in regard to it. I don't know as I ever saw it. My reasons for asking about it are: From what I saw about it, it grows a crop the first year. My land that I seeded the past season was a failure owing to the prolonged drought, and I will be short of hay and pasture grass another year, besides having my rotation upset. Would you advise sowing sweet clover for pasture or hay? I also had intended sowing a piece of poor land with peas and plowing down for manure, as I am short of manure, but as peas have taken to soaring, I was wondering if sweet clover would do instead. What time would it require to be sown, and quantity to the acre, to be fit to be plowed in for fall wheat? Is it hard to kill? Would once plowing be sufficient to kill it? What would it cost per acre to seed it? Is crimson clover the same as sweet clover? Would it be of any use for my purpose, or what would you advise? I have tried buckwheat, but don't see much in it.

ENQUIRER.

Ans.—We have from time to time during the past year published a great deal of information about sweet clover. This past summer we tried a small plot of it at Weldwood, and the results were very gratifying. The cattle ate it readily, and it seemed to be especially good feed, and that which was made into hay is indeed very good hay. One of the strongest points in favor of sweet clover is its value for plowing down. It may be sown with a nurse crop of barley early in the spring, or as we did, sow it alone twenty pounds per acre after seeding. It must be sown thick in order that it does not grow a rank, woody plant. It should suit your purpose for plowing down very well. You should, however, plow it down before it seeds, or just about the time it shoots to flower. The crimson clover is not the same plant. It costs about 20c. to 25c. per lb.

**LAST CALL FOR E. C. GILBERT'S HOLSTEIN SALE.**

Long before this every one interested will have received a catalogue giving full particulars of the breeding and official backing of the Holsteins to be sold at E. C. Gilbert's sale at Talbotville, on Tuesday, Dec. 22nd. The large number, 45 head, to be sold, is a guarantee that among the lot will be found something to suit the ideal of any one attending, no matter how high his standard may be. The cattle will be sold and will be offered in right nice field condition. An electric car leaves London and St. Thomas every hour, passing through Talbotville, where conveyances will meet every car from 10 a. m. to 1 p. m. Arrange to attend the sale.

The Reason.—Mrs. Whittler—"What delightful manners your daughter has!" Mrs. Biler (proudly)—"Yes. You see, she has been away from home so much." —Smart Set.

**Questions.**

1. Where can I obtain...  
2. What...  
Ans.—1...  
Department

Kindly in...  
able paper...  
subscription...  
journals de...  
and grocer...  
Ans.—Wri...  
lean Pub.

Please gi...  
old colt th...  
not lame...  
Ans.—Do...  
made of tw...  
mercury an...  
ounces of...  
the parts...  
once daily...  
third day...  
The anima...  
cannot bite...  
the oil, let...  
scab comes...  
off blister...

1. What...  
vise a man...  
2. Would...  
a Durham...  
3. What...  
gest for wi...  
have a flock...  
and one Ba...  
bred. The...  
they are no...  
of oats in...  
half waters...  
and water...  
a week, and...  
they move...  
scratch.

4. I had...  
a growth...  
womb abou...  
and three-q...  
called a vet...  
this ring h...  
there was n...  
The cow di...  
have her...  
good cow...  
bred her ag...  
Ans.—1. I...  
high-class...  
advise cross...  
to handle p...  
one of the...  
steins, F...  
get them, p...  
horns will...  
possible for...  
best breed...  
you get, an...  
ment given...  
2. We wo...  
breeds...  
3. For wi...  
better than...  
Rocks, Whit...  
Reds, or Bu...  
get a laying...  
mer layers...  
class by her...  
you feed the...  
about six in...  
This will in...  
should also...  
rolled oats...  
get green fe...  
mangels, or...  
grit and oys...  
4. If the...  
ing well, w...  
should not...  
better consu...  
ever, and fin...  
which he pe...  
more her fo...



**Questions and Answers.**  
Miscellaneous.

**Engineers License.**

1. Where can engineers' license papers be obtained in Ontario to run and operate steam boilers?
2. What are the fees for same?

H. C. J.

Ans.—1 and 2. Write the Secretary, Department of Agriculture, Toronto.

**Retail Journal.**

Kindly inform me, through your valuable paper, the names, addresses and subscription prices of the Canadian journals devoted to the retail mercantile and grocers' interests?

G.

Ans.—Write the Canadian Grocer, Maclean Pub. Co., Toronto.

**Sweeny.**

Please give treatment for three-year-old colt that was sweened this fall, but not lame.

W. G.

Ans.—Do not work. Get a blister made of two drams each of biniodide of mercury and cantharides, mixed with two ounces of vaseline. Clip the hair off the parts, and rub well with the blister once daily for two days, and on the third day wash off and apply sweet oil. The animal should be tied so that it cannot bite the parts. When applying the oil, let loose and oil daily until the scab comes off. As soon as the scab is off blister again if necessary.

**Cows, Hens, etc.**

1. What class of cows would you advise a man to get for dairy purposes?

2. Would you suggest a cross between a Durham and a Guernsey, or Ayrshire?

3. What class of hens would you suggest for winter and summer laying?

I have a flock of twenty Barred Rock hens, and one Barred Rock cockerel, very well bred. The hens are one year old, and they are not laying. I feed two quarts of oats in the morning and one and a half quarts corn at night. Lots of milk and water. I clean their coop out once a week, and they do not lay, nor will they move out from the building to scratch.

4. I had a cow calve last March with a growth around the outside of the womb about three inches in diameter and three-quarters of an inch in size. I called a veterinarian and he found that this ring had to be cut off entirely, as there was no other way to save the cow. The cow did well all summer, and I still have her. She is five years old and a good cow. Would you advise me to breed her again?

C. A. L.

Ans.—1. If you are going into the high-class dairy business we would not advise crossing. If you do not feel able to handle pure breeds, get grades of any one of the good dairy breeds, as Holsteins, Ayrshires or Jerseys. If you can get them, heavy-milking grade Short-horns will prove profitable. It is impossible for us to state which is the best breed. It all depends on the strain you get, and upon the care and management given.

2. We would not favor crossing these breeds.

3. For winter layers there is nothing better than a laying strain of Barred Rocks, White Wyandottes, Rhode Island Reds, or Buff Orpingtons. Be sure you get a laying strain of them. For summer layers, the White Leghorn is in a class by herself. We would suggest that you feed the whole grain in a litter of about six inches of rather short straw. This will induce them to scratch. You should also give them a mash, such as rolled oats, and besides this they should get green feed in the form of cabbage or mangels, or sprouted oats, and plenty of grit and oyster shell.

4. If the cow is now healthy and doing well, we see no reason why she should not breed all right. You had better consult your veterinarian, however, and find out whether the operation which he performed would in any way injure her for breeding purposes.

**Voting.**

1. Can a man owning property in a rural-school section, he not being a ratepayer and living in an incorporated village, vote in said section for trustee?

2. Can a man owning property in a rural-school section, he living in an incorporated village, vote for trustee of said section?

3. A farmer's son, twenty-one years of age, and on the voters' list, goes West for two or three months during harvest and returns home. Has he a legal vote at annual rural-school meeting, he residing in said section?

I. X. L.

Ans.—1. We think not.

2. Yes.

3. Yes, if he is a ratepayer.

**Payment for Machinery.**

1. I gave two notes for machinery, one due this fall and the other next fall. Not being notified of their maturity, I wrote the company and received no answer; but some time later the agent called and said that the company say they have no notes in their possession and he cannot find them at home, and he thought they were sent in with some other notes. Now he asks for new notes. Should I have given them?

2. What steps should be taken by the agent or by the writer before doing so?

3. Can the company collect the amount of the notes (the order given for the implement being in their possession), even though they do not be found?

R. W.

Ans.—1, 2 and 3. You should be careful before giving new notes. Of course, the company can collect the acknowledged price for the machinery, but you must be careful not to give them a double hold. Why not pay the note that is due this fall and have your receipt made out so as to make the lost note null and void, and then have a new note drawn in place of the one due next fall, and so worded as to make that note null and void? You should insist before you pay or give new notes that you be released from the others which are believed to be lost.

**Hen Lice, Worms, Black Teeth.**

1. What is good to kill hen lice on a colt five months old, without having to clip the colt?

2. I have a mare which seems to keep very thin. I think she has worms. She is in foal. Would you advise feeding meal? If not, tell me something that is good for worms.

3. At what age should black teeth be taken out of pigs? Do black teeth hurt young pigs when the sow is on grass?

A SUBSCRIBER.

Ans.—1. Get some proprietary louse-killer. It is usually effective. Be sure and work the powder well into the animal's hair. Another very good mixture may be made of ordinary cement and hellebore, four of cement to one of hellebore.

2. The meal mentioned would be all right for the horse, but, of course, would not cure it of worms. Try 1½ ounces each of powdered sulphate of iron, sulphate of copper and tartar emetic. Mix and make into 12 powders. Give a powder every night and morning in damp food, or mix in a half pint of cold water as a drench. After the last powder has been given, feed bran only for 8 or 10 hours, and then give 1½ pints of raw linseed oil. Give water in small quantities, and often.

3. While many people believe that black teeth are troublesome in swine, it is generally believed that in themselves they do no damage, and swine breeders should not bother much about them. Of course, if it is discovered that hogs have decayed teeth and are suffering from them, they should be removed.

The Provincial Fruit Branch announces its intention of holding apple-box packing schools again this season. The packing school is not a demonstration of how to pack, but an opportunity for those wishing it to learn how to pack by actually doing the work themselves under a competent instructor. The length of the course this year will be only two days, and the work is in charge of the District Representatives. At least ten pupils must be guaranteed in each school.

**45 Pure - bred Holsteins 45**

BY AUCTION

On Tuesday, December 22nd, 1914

At Royalton Stock Farm

(A short distance from Talbotville Station, on the Traction Line between London and St. Thomas, where conveyances will meet all cars both from London and St. Thomas, between the hours of 10 and 1 p.m.)

Mr. E. C. Gilbert will sell by auction, 45 head of high-class Holstein cattle. Seven young bulls from nine to eleven months of age; the balance females, heifers and mature cows. Heavy milkers and high testers; very many of them over 4% B.F., richly bred on producing lines and high-class individuals.

Terms—Cash or six months on bankable paper with 6%.

For Catalogue, write E. C. Gilbert, R.R. No. 7, St. Thomas, Ontario. MOORE & DEAN, SPRINGFIELD, ONTARIO, AUCTIONEERS.

Sale at 1 P.M.

**WHERE ELSE CAN YOU BUY**

Grandsons and Granddaughters of Pontiac Korndyke at Public Auction and at your own price. 25 head mostly young and all rich in the blood of such noted sires as Johanna Rue 4th Lad, Peterje Hengerveldt, Count Dekol or Pontiac Korndyke. 30 females, 5 bulls. Remember the date, Wednesday, Dec. 30th. At the same time and place a nice lot of Tamworth Swine; 8 good young Horses, heavy and light harness; Delaval Cream Separator, etc.; quantity of Corn in shock, etc. Farm can be reached by coming to Fenwick, Perry or Marshall Stations where trains will be met. Write for Catalogue.

GOLIVER V. ROBINS, WELLANDPORT, ONT.

**LAKEVIEW HOLSTEINS**

Senior herd bull—Count Hengerveldt Fayne De Kol, a son of Pieterje Hengerveldt's Count De Kol and Grace Fayne 2nd. Junior herd bull—Dutchland Colantha Sir Mona, a son of Colantha Johanna Lad and Mona Pauline De Kol. Third bull—King Canary Segis whose sire is son of King Segis Pontiac, and whose dam is 27-lb., three-year-old daughter of a 30-lb. cow. Write for further information to—

E. F. OSLER, BRONTE, ONT.

**SUMMER HILL FARM**

**Holstein Cattle and Yorkshire Hogs**

We offer for sale a dozen bulls, some ready for service, from high official record dams. If you are wanting a bull, better write us and let us tell you how good they are. Can also spare a few good heifers. Yorkshire hogs all ages.

D. C. FLATT & SON

HAMILTON Phone 7165 R.R. No. 2 ONTARIO

**Holstein Cattle** (Prince Hengerveldt of the Pontiacs, herd sire.)

Stock for sale. Large herd to select from. Hamilton Farms, St. Catharines, Ontario

**Cloverlea Dairy Farms** Herd headed by Pontiac Norine Korndyke, a splendid young bull with the best of high record backing, also a large perfect individual. Bull calves for sale, 1 born Nov. 6, 1914, a large straight calf and out of one of our best bred heifers, will be sold reasonable if taken soon.

GRIESBACH BROS., Phone Collingwood, Ont.

**Evergreen Stock Farm—High-Class Registered Holsteins**

For sale: Two exceptionally fine young bulls, one ready for service, and dams have good official records. Also three heifer calves, six, seven and ten months old; good individuals and bred right. Write for particulars, or come and see them.

A. E. HULET, R.R. No. 2, Norwich, Ont. Bell 'phone.

**Holsteins and Percherons at Beaver Creek Stock Farm**

In Holsteins—Present offering—A number of cows, also a few bull calves. In Percherons—2 Stallions, rising three years and five years respectively, also one yearling filly and one 1914 filly. Will exchange the two stallions for one and a cash difference.

Albert Mittelfeldt, Smithfield Station, T. H. & B. R. R. Wellandport, Ontario

**OURVILLE STOCK FARM**

Offers: Five bulls ready for service, sired by Royalton Korndyke Duke, whose dam gave 31.76 lbs. butter in 7 days. All are from tested dams.

LAILAW BROS. R.R. No. 1 AYLMER, ONT.

**60 Consignment Sale 60**  
OF PURE-BRED  
**HEAD Ayrshire Cattle HEAD**

From the herds of the Southern Counties Ayrshire Breeders' Club, to be held at Butler's Sale Barn, INGERSOLL, ONT., on

Wednesday, December 30th, 1914, at 1 p.m.

Offering consists of show cows, record cows, dairy test winners, high-class young bulls and heifers with breeding that spells production. Come and see these beautiful animals. Select one or more and keep your boys' interest in the farm. We are going to make this an annual event, and would like all interested in dairy cattle to attend, whether you want to purchase or not. Every animal pledged to absolute sale. Low rates on all railroads.

Terms—Cash or credit up to six months on bankable paper, 6% interest. Catalogues ready. Send for yours to-day.

JOHN McKEE, President J. L. STANSELL, Sec.-Treas.  
Norwich, Ont. Straffordville, Ont.

MOORE & DEAN, Auctioneers.

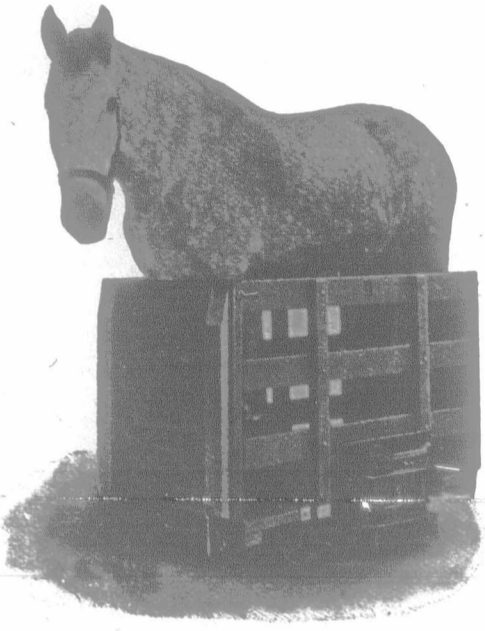
We have little to spare from our own herd but can fill orders from other herds of different ages up to car load lots. A few choice March 31st Boars on Hand. Prices right.

ALEX. HUME & CO., R. R. No. 3 CAMPBELLFORD, ONT.

**Woodburn Stock Farms**

We are offering for immediate sale: 25 choice boars ready for service, 25 young sows bred. These are of first quality from our prize-winning herd.

E. BRIEN & SONS, Proprietors RIDGETOWN, ONTARIO



"Grey Dan," weight 1,612 lbs., being weighed on an

### Aylmer Three-Wheel Wagon and Stock Scale

CAPACITY 2,000 lbs.

Delivered at any Railway Station in Ontario, complete with rack,

**\$35.00**

Government Certificate accompanies each scale.

Scale shipped same day as money received.

**THE AYLMER PUMP & SCALE CO., LIMITED**  
Aylmer, Ont.

## Farnham Farm Oxford Downs

"The Oldest Established Flock in America"

We are making a Special Offer for 30 days of 50 fine registered yearling ewes, bred to our imported ram to lamb in April. Also 50 ram lambs amongst them, a lot of big, strong fellows for flock-headers. Also a few nice ewe lambs, and a few good Hampshire ram lambs. C.P.R. Guelph and Arkell. Phone: Guelph, 240 ring 2. G.T.R., Guelph St. and Telegraph. **Henry Arkell & Son, Route 2, Guelph, Ontario**

**Tower Farm Oxfords**—A choice lot of ram and ewe lambs, sired by Hamptonian, No. 279, imported prizewinner at the Royal; also a few yearling rams and ewes.  
**EPHRAIM BARBOUR, Erin, Ont.**

**Sheep, Swine and Seed Corn**—Youn<sup>g</sup> stock of both sexes in Dorset Horn and Shropshire sheep, and in Swine: Poland Chinas, Duroc Jerseys, Berkshires and Chester Whites. Also Seed Corn, all varieties. Consult me before buying.  
**CECIL STOBBS, LEAMINGTON, ONT.**  
Phone 284 M.C.R., P.M. and Electric Ry.

**Shropshires and Gotswolds** Imported ewes. Will be pleased to book orders for delivery later of any kind wanted.  
**JOHN MILLER, R.R. No. 2, CLAREMONT, ONT.**  
Pickering Station, G.T.R., 7 miles.

I have now for sale 30 extra large, well covered shearing rams, 100 shearing ewes and a very fine lot of lambs from my 1908, 1909, 1910; and S. H. Romeo 27th, 24653, is the peer of them all.  
Our brood sows, in view of the above, could not but be of a very high class, combining great size, true type, and easy feeding qualities. For Sale—20 sows in farrow, 10 boars fit for use. A grand lot of young stock. Write us today.  
**H. S. McDIARMID, - FINGAL, P.O., ONT.**  
Shedden Station. L.-D. 'Phone via St. Thomas

**ALLOWAY LODGE, STOCK FARM**  
**Southdown Sheep**  
Look up this year's record at the shows. Breeding stock of all ages for sale.  
**ROBT. McEWEN, BYRON, ONTARIO** - Near London

**Maple Grove Yorkshires**  
200 Head  
Are as good as the best, because they combine the bloods of the following noted sires:—M. G. Champion 20102, Champion boar at Toronto, 1906; S. H. Jack, Imp. 28515, Champion boar at Toronto, 1908, 1909, 1910; and S. H. Romeo 27th, 24653, is the peer of them all.  
Our brood sows, in view of the above, could not but be of a very high class, combining great size, true type, and easy feeding qualities. For Sale—20 sows in farrow, 10 boars fit for use. A grand lot of young stock. Write us today.  
**H. S. McDIARMID, - FINGAL, P.O., ONT.**  
Shedden Station. L.-D. 'Phone via St. Thomas

**OXFORD DOWN SHEEP**  
Shorthorn Cattle, Yorkshire Hogs—Present offering: Lambs of either sex. For prices, etc. Write to **John Cousins & Sons**, "Buena Vista Farm," - **Harriston, Ont.**

**Newcastle Tamworths, Shorthorns and Clydesdales**—For sale at once: Two choice sows in pig, 2 years old; one extra choice year-old sow bred; boar ready for service; sows bred and ready to breed; choice lot of pigs nearly ready to wean: all from the choicest stock on both sides; 3 choice young bulls 10 to 12 months old; several heifers bred to my present stock bull, Broadlands; all from splendid milking dams. One registered 3-year-old filly; 1 5-year-old and a 12-year-old brood mare; all of splendid quality; prices right. **A. A. Colwill, Newcastle, Ont.** L.-D. 'Phone.

**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. **H. J. Davis, Woodstock, Ont.** Long-Distance 'Phone. C.P.R. and G.T.R.

**THE SPRUCEDALE STOCK FARM**  
of all ages, bred from show stock. Prices right for immediate sale.  
**A. WATSON & SONS, R.R. No. 1, ST. THOMAS, ONT.**  
'Phone Fingal Via St. Thomas

**YORKSHIRES AND BERKSHIRES**  
In Duroc Jerseys we have either sex of any desired age, bred from winners and champions for generations back. In Jerseys we have young cows in calf, and young bulls, high in quality and high in producing blood.  
**MAC. CAMPBELL & SON, NORTHWOOD, ONTARIO**

**ELMHURST LARGE ENGLISH BERKSHIRES**  
From our recent importation of sows, together with the stock boar Suddon Torredon we can supply select breeding stock, all ages. Satisfaction and safe delivery guaranteed.  
**H. M. VANDERLIP, Breeder and Importer, CAINSVILLE P.O., ONTARIO**  
Langford Station on Brantford and Hamilton Radial.

**BERKSHIRES FOR SALE**  
Registered boars and sows weaned, straight and thrifty, from prizewinning stock on either side at Toronto, London and Guelph winter shows, 1913. \$10 each. **Ira Nichols, Box 988, Woodstock, Ont.**

**TAMWORTHS**  
Boars ready for service. Sows and pigs of all ages for sale, registered. Write for prices before buying elsewhere.  
**John W. Todd, R. R. No. 1, Corinth, Ontario**

**Canada's Champion Herd of Registered Hampshire Swine**  
This herd has won over 90% of all prizes offered for the breed at leading Ontario Fairs. Write for particulars and prices.  
**HASTINGS BROS., Telephone CROSSHILL, ONT.**

**Poland China and Chester White**  
An offering choice young stock in Swine and Shorthorns, many are winners and the produce of winners at Toronto, London and Guelph. Moderate. **Geo. G. Gould, R.R. 4, Essex, Ont.**

**BERKSHIRES**  
My Berkshires for many years have won the leading prizes at Toronto, London and Guelph. Highclass and Salties the best strain of the breed, both sexes, any age.  
**ADAM THOMPSON, R.R. No. 1, STRATFORD, ONT.**  
SHAKESPEARE STATION, G.T.R.

**Cloverdale Large English Berkshires**  
Sows bred, others ready to breed; boars ready for service; 200 from six to twelve weeks old, both sexes, pairs not akin. All breeding stock imported from Imp. stock. Prices reasonable.  
**C. J. LANG, Hampton, Ont.** R. R. No. 1

**Pine Grove Yorkshires**—Bred from prize-winning 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.**

## Questions and Answers. Miscellaneous.

### Setting Aside Will—Landlord and Tenant—Live Stock Inspectors.

1. Is the failure of one party to a will all that is necessary to break it, or what?
2. Could a widow who has been left a certain amount per year as long as she lives, out of her husband's estate, which was willed to another person, break the will, or cause the property to be sold if she considered she did not get her third, or would the will stand as a decision to this?
3. A rents farm from B, and B allows him so much for repairing barns. (a) Would a clause stating this above agreement if placed in the lease, give A a just claim on property for repairs? (b) Would it spoil validity of lease in any way?
4. What are the license fees for a (a) County, (b) Provincial Auctioneer, or (c) does the former vary?
5. What qualifications are necessary, and how could a person become a Government Inspector of Live Stock? About what salary do they receive?
6. How would metal-sheeting siding compare with lumber for a barn as to cost and durability?

- Ans.—1. No. It depends upon a variety of circumstances.
2. The will would not be set aside for the reason suggested alone. Other and much stronger grounds would be required. But the widow is not compelled to accept the provisions in her favor contained in the will. She may elect to take, instead, her dower, that is to say, her estate for life in one-third of her husband's lands, if any.
3. (a) We think not. (b) No.
4. (a) These are fixed by by-law of the Municipal Council of the particular County. (b) We do not find any statutory provision for Provincial auctioneers, or the licensing of such. (c) Yes.
5. Write the Department of Agriculture (Live-stock Branch), Ottawa, for the desired information.
6. Quite favorably.

### Miscellaneous Enquiries.

1. My neighbor, who is going to build his line fence, said all trees which were in the fence corners were his, as they would be on his side when he built the fence. Can I cut them before he builds his fence? He cut all on his side a few years ago.
2. A sells his 200-acre farm to B for \$12,000. B pays \$2,000 down, and gives for the remainder a mortgage on the farm. B at the same time has a house and lot in town clear of debt. If the value of the farm falls below the mortgage value, can A take B's house and lot to make up the mortgage value?
3. If there are children in a school section who do not go to school, who should report them to the inspector, and what is the penalty?
4. Some limbs of my apple trees hang over my neighbor's fence, who claims the apples. Can he cut off the limbs even with the fence?
5. I have lived in my uncle's house for twelve years, paying the taxes, but no rent. Can he claim the house, as he offers it for sale?
6. Can I buy and sell fowl without a license?
7. Last summer I lost a swarm of bees which I followed to a tree in my neighbor's woods. Can I cut down the tree for the honey in the fall without asking him?
8. How far must bee hives be from a street, or a neighbor's fence in a village?
9. When does a farmer's time start in doing Statute Labor, when he gets to the place he is putting the gravel, which is between his place and the pit, or does it start when he gets to the pit?
10. What is the difference between Local Option and the Canadian Temperance Act?
11. Is G. E. Cantwell, M.P.P., for Prescott, a Liberal or Conservative?

Ans.—1. There is an actual line somewhere between you and your neighbor. Trees on his side belong to him, and on your side they are yours. It is not legal for you to cut trees belonging to your neighbor.

2. B accepts the mortgage as security for the balance due him. The house and lot do not enter into the transaction at all, and can not be appropriated for that purpose.
3. The trustees should report this matter to the inspector, who will deal with it as occasion demands.
4. The neighbor may gather the apples and cut the limbs off even with the line fence.
5. This sojourn there does not entitle you to ownership of the property.
6. Yes.
7. No.
8. This is a matter which will depend on judgment. If one wilfully puts hives of bees where they are a menace to neighbors or public, he is endangering his own position.
9. The time starts when the man and team leave home. Where people are interested in their roads, they are usually at the pit at 7 a.m.
10. Write the Secretary of the Dominion Temperance Alliance, Toronto.
11. Write him.

### Soft Water.

1. Is rainwater out of a cement cistern as good for horses as hard water?
  2. Will lime improve soft water for heaves?
- J. A. P.
- Ans.—1. If it is clean and pure, yes  
2. No.

### Where Calendars are Made.

Would you kindly let me know where I could get calendars made, and what they would cost me by the hundred?

W. G.

Ans.—The London Printing and Lithographing Co., of London, Ont., have a department devoted to this work. Write them, stating the class of calendar you wish made, and procure prices from them.

### Mating Turkeys.

Last spring I had a young turkey hen that failed to mate with the male bird, and eggs were not fertile. Can you tell me, through your paper, if it might be possible she would mate next spring? Hen is a fine, big bird, and I would like to keep her.

D. E. S.

Ans.—We cannot say. A big, healthy bird, should be a breeder.

### Eczema.

Kindly inform me, through the columns of your paper, if there is anything that I could get to cure eczema in horses? They are dry in the hair, hide is full of dust, have itchiness all over body, head, mane, and tail. Veterinary calls it eczema.

A. M.

Ans.—Your veterinarian is doubtless correct. Eczema in horses is often very hard to treat. Unless the animal's hair is very short, have him clipped. It will be necessary at this season of the year after clipping to keep in a warm place or blanketed. Give each horse a thorough washing with strong, warm, soft-soap suds, well applied with a scrubbing brush. After this, dress thoroughly every second day until cured with a warm, five-per-cent. solution of Creolin in water. Give each horse one ounce of Fowler's Solution of Arsenic mixed with a pint of cold water and then mixed up with chop or bran, or as a drench, twice daily every second week for six weeks.

### Potato Digger.

Three farmers, A, B and C, buy potato planter and digger in partnership, one-third share each, with the understanding that nobody but themselves are to use them. C sells his share to D without asking A's and B's consent. A and B refuse to accept D as partner, and offer to buy his share at a price which all agree to. D refuses to sell, and wants to buy A's and B's shares.

1. Has C any legal right to sell his share without consulting or getting the consent of A and B?
  2. Can A and B compel D to sell to them at agreed value, or can I compel them to accept him as partner or sell to him?
- M. R. H.

Ans.—1. We see nothing in the agreement as far as indicated in the question to hinder C from selling his right or share in the potato-digger, but it would have been wiser to have consulted A and B first.

2. We think A and B cannot compel D to sell to them at agreed value. We see no reason why D cannot insist upon being a partner in the deal if he has bought C out, but D cannot compel A and B to sell to him.

# DESIRABLE PREMIUMS

We offer to our present subscribers for sending in bona-fide new yearly subscriptions, accompanied by \$1.50 each, the following valuable premiums (terms given under each heading). Present subscribers, if not already paid in advance, are expected to send their own renewal at the same time as sending in new subscriptions.

During the last few months the premiums we have been offering, among others the

## Magnificent 21-Piece China Tea-Set

of beautiful delicate pattern, have been greatly enhanced in value, in fact no further supply of these tea-sets can be obtained at any price. Fortunately, however, we had secured a large importation before the European trouble began, and are, therefore, in a position to offer this premium for obtaining **THREE NEW YEARLY SUBSCRIPTIONS**, accompanied by \$4.50, for which we will send this premium, carefully packed, express prepaid, to any place in Ontario or Quebec.



### Complete Kitchen Equipment

A utensil for every purpose. All made of the highest grade of crucible steel. Rubberoid finish, hardwood handles, mounted with nickel-plated ferrules. All six articles for **ONE NEW SUBSCRIBER** or \$1.00 cash.

### Farmer's Advocate Knives

Manufactured by Joseph Rodgers, Sheffield, England. Jackknife and Penknife, both nickle-handled and having two blades. Manufactured specially for "The Farmer's Advocate," worth retail \$1.00 each. **ONE NEW SUBSCRIBER FOR EACH KNIFE.**

### Sanitary Kitchen Set

Best quality steel; five pieces and rack which can be hung on the wall. **ONE NEW SUBSCRIBER.**

### Bibles

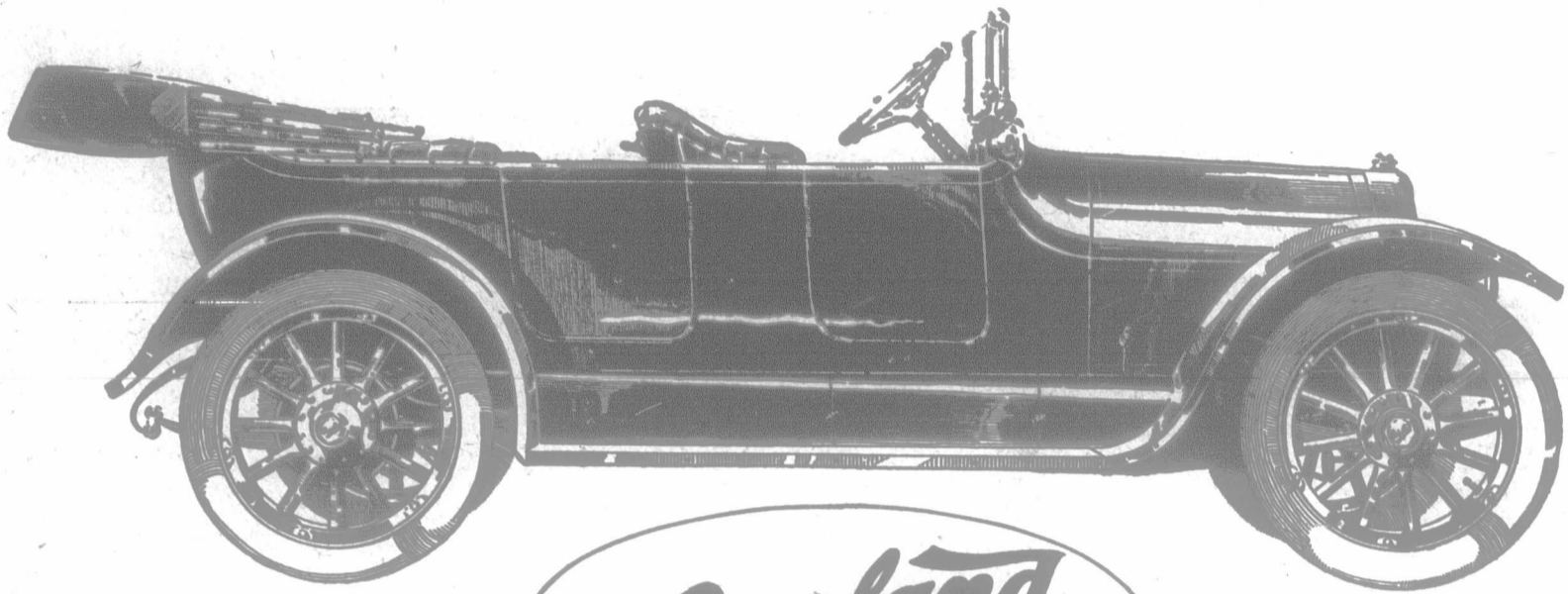
Old and New Testaments in beautifully clear, legible type; references, concordance to both Old and New Testaments. Index to names of persons, places and subjects occurring in the Scriptures. Twelve full-page maps; all excellent in type and outline. This book is of most convenient size, being 7x10 inches when open; weight, 23 ounces; and would sell at regular retail price from \$1.00 to \$1.50. **ONE NEW SUBSCRIBER.** Or size 9x13 inches open, with center reference and chromatic index for **TWO NEW SUBSCRIBERS.**

You may have cash commission, or your own subscription advanced six months, for every new subscription, (accompanied by \$1.50) received. Send for **FREE SAMPLE COPY** to show prospective subscribers.

Address:

**The Farmer's Advocate and Home Magazine**

London :: :: :: Canada



Model 80



\$1425

## Get a Big New Overland For the Big New Year

Nineteen fifteen is just a stone's throw away.

The most conservative estimates promise the biggest, best and most prosperous year you have ever had the pleasure and privilege of living through.

So now, as never before, you need a car.

And what is more—you need an Overland.

Here's why.

The Overland offers the greatest intrinsic value for the very least amount of actual money.

Regardless of price—it is one of the handsomest cars ever built. The beautiful full stream-line body is one of the most admired designs of the season.

Regardless of price—it is one of the most comfortable cars ever built. The long underslung rear springs make it ride with absolute ease and smoothness at all times. So do the large tonneau, deep and soft upholstery, and large tires.

Regardless of price—it is one of the most convenient cars ever built. It is electrically started and electrically lighted. All of the electric controls are conveniently located on the steering column. You can operate every button without changing your driving position.

Regardless of price—it is one of the most complete cars. There are demountable rims, with one extra, a high-tension magneto,

built-in ventilating type windshield, mohair top and boot, magnetic speedometer and curtain box. In fact, every modern improvement.

Then remember this—

The first cost is not only considerably less, but so is the operating cost. In both directions you save money.

Also remember that every Overland is backed by a world-wide service.

So by all means get an Overland—and get it now.

Then, and only then, you'll make 1915 just that much bigger, better and more delightful for your whole family.

Act to-day.

### BRIEF SPECIFICATIONS

Motor 35 h. p.  
New full stream-line body  
Tonneau: longer and wider  
Upholstery: deeper and softer

Windshield; rain-vision, ventilating type, built in  
Electric starter  
Electric lights  
Thermo-syphon cooling—no pump needed

High-tension Magneto; no dry cells necessary  
Five bearing crankshaft  
Rear-axle; floating type  
Wheel base, 114 inches  
34" x 4" tires

Demountable rims—one extra  
Left-hand drive  
Center control  
Body:—beautiful new Brewster Green finish

### MODEL 81 PRICES:

5 Passenger Touring Car \$1135  
2 Passenger Roadster \$1065

### MODEL 80 PRICES:

5 Passenger Touring Car—\$1425  
2 Passenger Roadster—\$1390  
4 Passenger Coupe—\$2150

### MODEL 81 PRICES:

Delivery Wagon with closed body \$1195  
Delivery Wagon with open body \$1135

ALL PRICES F. O. B. HAMILTON, ONTARIO

Handbook car catalogue on request. Please address Dept. 186

The Willys-Overland of Canada, Limited, Hamilton, Ontario