

PUBLISHED EVERY WEEK. \$1.50 PER YEAR.

# THE FARMER'S ADVOCATE

AND HOME MAGAZINE

PERSEVERE  
SUCCEED  
FOUNDED 1877

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

Vol. XLIV.

LONDON, ONTARIO, DECEMBER 16, 1909.

No. 899

## Here Are the Two Strongest Fence Locks Ever Made

The Frost Woven Fence Lock is the strongest and most secure Lock known. It will not work loose or slip.

One reason is because it possesses more inches and weight of Wire than any other Lock. But the principal reason is because the Frost method is the most practical.

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

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

### Lateral Not Kinked

The Frost Lateral is not kinked.

The Lateral in nearly every other Fence is kinked. This weakens it. And when subjected to great strain: snap! she goes. Because all contraction-strain falls on the Lateral.

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

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

### Frost Metal Lock

The Frost Field-Erected Fence Lock permits the use of No. 7 Hard Steel Stays. (2 sizes larger and heavier than the Uprights

used in Woven Fence.) These are immovably bound to uninked coiled Laterals.

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

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

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

### Make Our Own Wire

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

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

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

We've engaged a Wire Expert with 25 years' experience behind him. And we've built special

Wire-Making and Galvanizing Mills, and installed the most modern machinery made.

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

### Two-thirds of Its Life

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

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

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

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

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

Frost Galvanizing will now stick to the Wire through thick and thin. No Galvanizing enemy

can rust it. That's why the Frost Fence will last 12 to 15 years longer than most others.

### "Gives and Takes"

Any "Coilless" Wire Fence will snap when severely expanded!

Frost Wire is coiled. When contraction is necessary, instead of snapping, these coils lend their surplus.

And when expanded, they "take in" that surplus, like a spring, instead of letting the Fence sag and lose its shape.

For this reason the Frost Fence can be stretched tighter than any other in Canada. Just think of the great saving in Posts this means!

No other Machine-made Fence has these "Give" and "Take" features. A few Field-Erected Fences have them. But they simply cannot hold out against constant expansions and contractions. Simply because such ordinary Wire will not stand for it. It is bound to give 'way.

Both the Frost Woven and the Frost Field-Built Fences have these "Gives" and "Takes."

No matter how often expanded or contracted, Frost Fences will act and remain the same.

### Send for Samples

While the new Frost Fence is the best for Canadian use, it costs you no more than others.

We are anxious to send you free samples of the Frost Fence, Locks, and Booklet.


Drop us a card to-day.

The Frost Wire Fence Co.,  
Limited, Ontario  
Hamilton,


Agents  
Wanted  
in Open  
Districts.

# "Frost" Fence

**LOOK**



The two upper pictures show absolutely all there is to the light, simple, sanitary Sharples Dairy Tubular Cream Separator bowl. It can easily be washed perfectly clean in three minutes and has twice the skimming force of common bowls. Wears a lifetime. The World's Best.



The lower picture shows a common, disk-filled bowl with 42 disks. Other sorts are about equally bad.

Simplicity is only one of many Tubular advantages. Do you wonder that Tubular sales exceed most, if not all, others combined? That Tubulars probably replace more common separators every year than any one maker of such machines sells? The manufacture of Tubulars is one of Canada's leading industries. America's oldest separator concern.

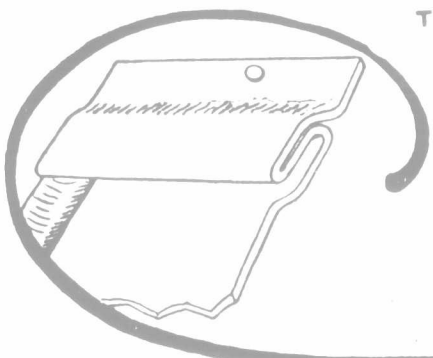
Write for Catalogue No. 193

**29 yrs**

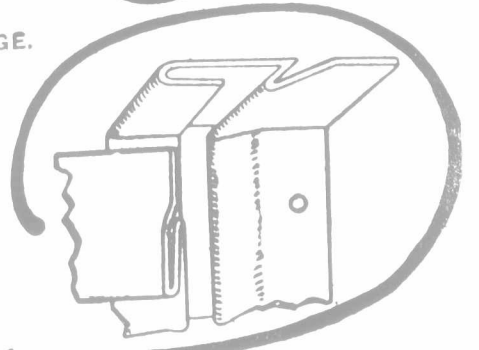
**THE SHARPLES SEPARATOR CO.**  
Toronto, Ont., Winnipeg, Man.

# "Galt" Shingles

THIS IS THE SHEET METAL AGE.



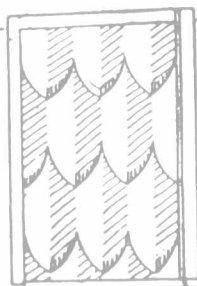
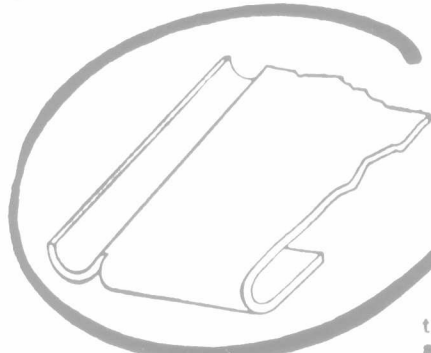
To have been first shows antiquity—to have become first proves merit. The new "Galt" Shingle owes its enormous popularity and sales—not to the age, but to the brains of its inventors and makers.



Our claims for the "Galt" Shingle are firmly based on the superiority of its constructional features here illustrated.

We originated the Gale-proof, Closed-end side lock. We perfected the continuous interlocking, over-lapping, easy-fitting and invisible top lock.

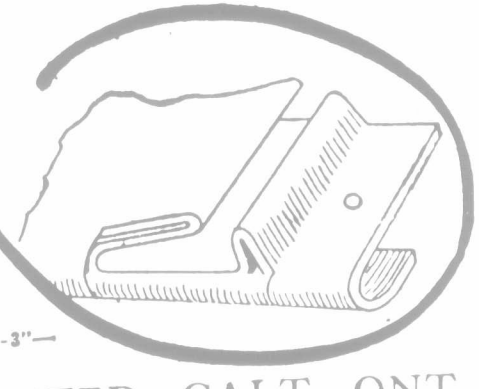
We use only the Best British Galvanized Steel Plates—there are none better. Our bold Gothic Tile pattern is very handsome in appearance. "Galt" Shingles are accurately made, which insures quick and easy application. Covered nailing flanges at both top and sides insures strength and rigidity.



Pronounced by roofing experts to be the most perfect shingle ever made.

They cost no more than the others.

We have a lot more to tell you about them in Catalog "B-3"—ask for it.



**THE GALT ART METAL CO., LIMITED, GALT, ONT.**

Sales and Distributing Agents: Dunn Bros., Winnipeg and Regina.

## Synopsis of Canadian North-west Land Regulations.

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

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

In certain districts a homesteader in good standing, may pre-empt a quarter-section alongside his homestead. Price, \$3.00 per acre. Duties—Must reside six months in each of six years from date of homestead entry (including the time required to earn homestead patent) and cultivate fifty acres extra.

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

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

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



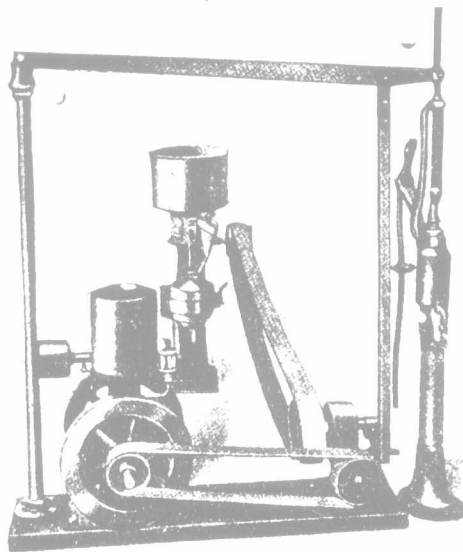
They will make it brighter and neater, are stronger, more durable, and cost less than any other tie when all is considered. Your cows will be kept clean and comfortable. Ask us how to lay out your stable, and why it pays to use "BT" Stanchions

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

**Well DRILLING & PROSPECTING MACHINES.**  
Fastest drillers known. Great money earners!  
**LOOMIS MACHINE CO., TIFFIN, OHIO.**

## IDEAL GASOLINE ENGINES

1/2 TO 40 HORSE-POWER.



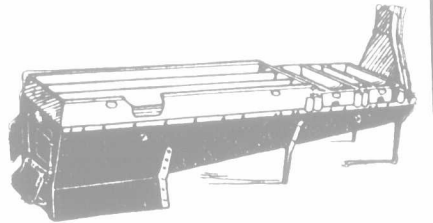
Windmills,  
Grain Grinders,  
Pumps,  
Tanks,  
Water Boxes,  
Concrete Mixers,  
Etc., Etc.

Send for catalogue.

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

## CHAMPION EVAPORATORS

MAKE BETTER SYRUP



Place your order now. Make your maple grove pay next spring as it never paid before. A "Champion" Evaporator will get every dollar possible out of your sap without any extra effort on your part. Our free booklet tells you all you want to know about syrup-making. Write for it to-day.

**THE GRIMM MFG. CO.,**  
58 WELLINGTON ST., MONTREAL.

The Favorite and the Best Value for the Money of Them All is

## TOLTON'S

### NO. 1 DOUBLE ROOT CUTTER

POINTS OF MERIT:

1. To change from pulping to slicing is but the work of a moment.
2. There are two separate wheels, one for pulping and the other for slicing.
3. The united force of both wheels is always used in doing the work in either capacity.
4. The hopper is between the wheels and does not choke.

THE ONLY DOUBLE ROOT CUTTER MANUFACTURED. Fitted with Roller Bearings Steel Shafting and all that is latest and best in principle, material and construction. SEND FOR DESCRIPTIVE CIRCULAR AND PRICES.

**TOLTON BROS., LIMITED, DEPT. F., GUELPH, ONT.**

## The Very Best

Grain, Stock and Fruit Farms that are for sale in Ontario are listed with us. Those wishing to buy a Farm should write us. We have farms at all prices for sale. Write for list.

ADDRESS:  
**The UNION TRUST COMPANY, Ltd.**  
Real-estate Dept.  
174 176 Bay St. Toronto, Ont.

## PLANK FRAMES

For barns, sheds, rinks, etc., shipped all complete; correct and at lowest prices. Order early.

**ALF. A. GILMORE, PROP.,**  
Huntingdon Steam Mills, HUNTINGDON, QUE.

Please Mention The Farmer's Advocate

# Niagara Brand Lime-Sulphur Spray

MANUFACTURED IN CANADA

NIAGARA is the Standard of Value for fruit-tree sprays. It is used by the most successful fruit-growers in every fruit district of the Pacific Northwest and in many of the Eastern States, and has already proven its worth in Ontario.

## THERE IS A REASON WHY.

NIAGARA is made under special process (of which we have secured all rights for Canada). The only known process by which is made a permanent and reliable solution of lime and sulphur of sufficient strength to meet all requirements. Anybody can make a Spray which may do sometimes. The process by which NIAGARA is made insures the best work at all times. NIAGARA is the best known remedy for Apple Scab, Leaf Curl, and most all forms of fungi, San Jose Scale, Oyster-shell Bark Louse, Bilster Mite, Aphid, Bud Moth, and all sucking insects and parasitic life. Potato and Tomato Blight and Mildew of Grape have been successfully treated. NIAGARA Brand Lime-Sulphur Solution has been proven by the highest authorities, after several years' work, equal to Bordeaux as a fungicide, and far less dangerous to use. It is ready prepared and cheaper.

## ARSENATE OF LEAD.

ARSENATE OF LEAD has almost entirely supplanted Paris Green as a poison for Codling Moth and other insects requiring a poison treatment. Such dissatisfaction as may have arisen because of burning or failure can be attributed to an improperly combined arsenate. NIAGARA BRAND ARSENATE OF LEAD is specially prepared with a view to efficiency and safety. PRICES—Because of manufacturing ourselves, and buying materials in large quantities, we are prepared to offer these Sprays at a much lower price than obtained last season. PUMPS—We are Canadian Agents for the famous BEAN SPRAY PUMPS—hand and power. Also a full line of hose, nozzles, etc. SPRAY BOOK—We are preparing a book, which we trust will be of value to fruit-growers, and will be mailed to you upon request.

NIAGARA BRAND SPRAY COMPANY, LTD., BURLINGTON, ONTARIO.

NIAGARA SPRAYER CO. Middleport, N. Y.

BEAN SPRAY PUMP CO. Cleveland, Ohio.

OREGON SPRAY CO. Portland, Oregon.

MEDFORD SPRAY CO. Medford, Oregon.

HOOD RIVER SPRAY MFG. CO. Hood River, Oregon.

REMEMBER—WHEREVER FRUIT EXCELS, NIAGARA SPRAY IS USED.



**Tone Is Always First**

Tone is the most important feature of a piano—because, on the quality and permanency of tone, depends the value of the piano.

The magnificent, singing tone of

### New Scale Williams Piano

unapproachable in sweetness, mellowness and majesty—is possible because the New Scale Williams Piano not only is more heavily strung on its massive plate and scale than other Pianos, but also because of the Harmonic Tone Prolonging Bridge which prevents the introduction of faulty and imperfect tones.

If your home needs a piano to complete its coziness, perhaps our plan of buying a New Scale Williams on easy payments will interest you. Write for full particulars and copies of our illustrated booklets.

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

BRANCH OFFICES:  
Winnipeg, Man., 323 Portage Ave.  
Montreal, Que., 723 St. Catherine St. W.  
London, Ont.,  
261 Dundas St.  
116A

## Cowan's

### Nut Milk Chocolate

A chocolate confection of rich milk chocolate and fresh shelled walnuts. Simply exquisite. In ¼ and ½ pound cakes.

The Cowan Co. Limited, Toronto. 91

### Build Concrete Silos

Any size with the London Adjustable Silo Curbs. Send for Catalogue. We manufacture a complete line of Concrete Machinery. Tell us your requirements.

London Concrete Machinery Co. Ltd., 19 Marmora Street, Ontario, London.  
Largest manufacturers of Concrete Machinery in Canada

### INVENTIONS

Thoroughly protected in all countries. EGERTON R. CASE, Registered U. S. Patent Attorney, TEMPLE BUILDING, TORONTO. Booklet and drawing sheet FREE.

IN THE HUNTING SEASON.  
Hotel Visitor—"Are there ever any deer about here?"  
Gillie—"Well, there was 'im, but the gentlemen were aye shootin' and shootin' at it, and I'm thinkin' it left the deer tract."—Punch.

### TRADE TOPIC.

An exceptionally interesting feature prepared for the Ontario Winter Fair at Guelph, is the Gilson "Goes Like Sixty" Patent Air-cooled Engine, attached to a binder for operating the harvester. This outfit created a sensation when it appeared last year in the Western wheat fields, and was instrumental in saving millions of bushels of wheat which otherwise would have been lost. With this machine, the wheat was harvested in fields that were so wet that the horses sank in mud up to their hocks, and it was impossible to get the work done in the ordinary way. This invention attracted attention all over the United States, and was noted at the time in "The Farmer's Advocate." The Gilson Manufacturing Co. was highly complimented in all the leading technical journals, and by university professors, for its progressiveness in meeting an actual demand of great value so successfully.

### THE SPICE OF LIFE.

The depot of a certain little Southern town is about a mile from the business part of the town. One night a sleepy, weary traveling man said to the darky who was driving him to the hotel: "Old man, why in the name of heaven did they put this depot so far from town?"

The darky scratched his head in thought, and replied: "Wa'l, boss, I's forced to admit dat I hasn't give de matter sufficient cogitation, but jest' jumped up fer a answer like dis, I s'pose dey done dat so as to have de depot as near as possible to de railroad."

While Governor of Tennessee, Senator Robert L. Taylor was once approached by an old negro woman, who asked a pardon for her mis and, sent to the penitentiary for stealing a hog.

"How long has he been in jail?" was asked.

"Goin' on two years now," came the answer. "But, law, he ain't no good to them, and wa'n't no good to me nohow, an' I speck they'd be glad to get rid of him."

"Why do you want to get him out if he was of no use to you?"

"To tell the truth, giviner, we done gettin' short of meat."

A certain bishop, before he became known to fame, was a minister of a remote parish in Perthshire, and was not considered a particularly attractive preacher. At his suggestion, alterations in the transept of his church were made which did away with a large number of seats. After the alterations had been finished, he met the headie in the church.

"What do you think of the improvements, John?" he asked. "Improvements?" exclaimed John, in disdain. "They're no improvements at all. Whair are ye goin' to put the folk?" "Oh," was the reply, "we have abundance of room, John, considering the size of the congregation."

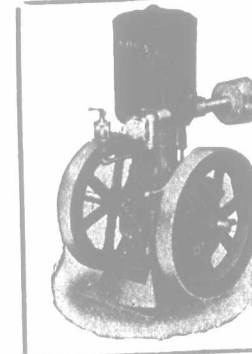
"That's a very wad the noo," retorted the headie; "but what will we do when we get a popular member?"

## Debentures

If you are looking for an ABSOLUTELY SAFE investment you will find it in our Debentures. Our Assets of over \$11,000,000 provide ample security for your money. The Debentures are issued for sums of \$100 and upwards, and for periods of from one to five years. They are a profitable investment, earning 4% interest. Banking and Debenture Book-let mailed free on request.

### Huron & Erie

Loan and Savings Co.  
LONDON, CANADA  
Incorporated 1864  
Assets over \$11,000,000



When you are buying an engine think of POWER, DURABILITY, ECONOMY.

## "LONDON"

### GAS AND GASOLINE ENGINES

Give you all 1½ to 50 h.-p. Catalogue 14G.

SOLE MANUFACTURERS:  
Scott Machine Co., Ltd., London, Canada.

## STRENGTH AND ECONOMY

You can depend absolutely on PEERLESS Fencing to hold live stock under any and all conditions. It is made of all No. 9 steel wire heavily galvanized and has lots of spring in it, making ample provision for contraction and expansion due to changes in the temperature, sudden shocks, etc.

## PEERLESS

The Fence That Saves Expense

is held together by the Peerless lock which holds the wires securely and makes Peerless Fence absolutely stock proof. The lock cannot be slipped or knocked loose. Write for our new book—it will interest you. It's free.

THE BANWELL HOXBIE WIRE FENCE CO. Ltd., Dept. B  
Hamilton, Ont. Winnipeg, Man.

### CLERICAL SLIPS.

The reverend editors of the church monthlies are usually very careful in their work, but sometimes they trip. "At the graveside," wrote the vicar, in an account of the funeral of a church member, "the undertaker was seized with a fit, and, though medical assistance was hastily summoned, expired almost immediately."

"This unhappy event cast quite a gloom over the proceedings." The advertisements of these periodicals frequently exhibit peculiarities of phrasing and strange ambiguities which must puzzle the reader not a little. As, for instance, the following: "Gosp'l Hall. At 6.30. 'The Feast of Death.' All are welcome."

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# Bell PIPE TONE Organs

THE MOST SATISFACTORY ORGANS FOR HOME USE

IN BUYING A

## Bell Organ

you secure one with the charming tone of a pipe organ, and at a price that will please you. Buy a Bell and get the best made. We are the only makers of the patent Pipe Tone Reed Cells. Send for free catalogue No. 40.

The BELL Piano & Organ Co. GUELPH, (Limited.) ONTARIO. Largest makers of Pianos, Organs and 2 Playerpianos in Canada.

With An American Saw Mill All Sizes

Make Big Money This Winter

This simple, light running mill makes more and better lumber with less power and less help than any other. You can set up and operate any American mill with the directions before you. If you have no timber, your neighbors have. Don't let your engine lie idle.

124-Page Book, Free

Containing valuable suggestions about the care of saws, fully describing the features that make our mills best, giving prices and guaranty and full information about our Wood Saws, Shingle Machines and other wood working machinery. Write for book today.

American Saw Mill Machinery Co. 113 Hope St., Hackettstown, N. J. 154 Terminal Buildings, New York

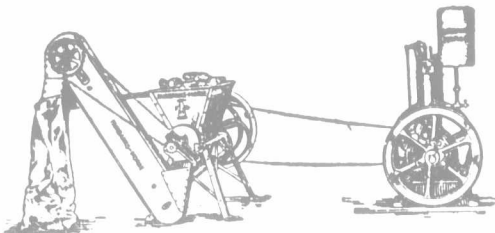
### This Cylinder Shows Why The "EUREKA" Root Cutter

is the best on the market. See how it is designed. Grooved knives, with the grooves on one blade opposite the teeth on the next. Instead of slicing or pulping, the "Eureka" turns out roots in shreds — thin narrow strips — suitable for any kind of feeding. The "Eureka" shreds from one to two bushels a minute, and turns so easily that a child can operate it. In the "Eureka" the feed is kept free from dirt, the feeder bottom being made with iron rods, thus allowing all dirt to drop out before it can reach the shredding cylinder. The sloping form of the cylinder makes the machine a self-cleaner. Write for catalogue which explains fully.

The Eureka Plaster Co. Limited Woodstock, Ont. 7A

# FAIRBANKS-MORSE ENGINES

Are Safe, Durable, Strong, and Economical



Why not Crush Your

## Corn in Your Own Barn?

Are you going to feed whole grain to your stock, or make the long trips through the cold winter weather to the crushing mill for chopped grain? Why not do your own crushing in your own barn? Use a Fairbanks-Morse Engine for this work, also for sawing, pumping, etc.

Fairbanks-Morse Engines are labor-savers and money-makers. Cut out this complete advertisement to-day and send for Catalogue FA.

NAME .....  
ADDRESS .....

The CANADIAN FAIRBANKS CO., Limited  
Fairbanks Standard Scales. Fairbanks-Morse Gas Engines.  
Montreal. St. John, N. B. Toronto. Winnipeg. Calgary. Vancouver.

## HIGH FINANCE

Doesn't offer the safety of an investment in

GOOD COWS and a

De Laval

Cream

Separator

One is as important as the other. Free Catalogue



The De Laval Separator Co.,  
173-177 William Street, Montreal  
VANCOUVER \* \* \* \* \* WINNIPEG

# Agents Wanted!

ACTIVE SUBSCRIPTION AGENTS FOR

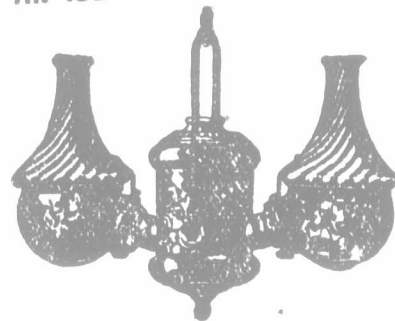
THE FARMER'S ADVOCATE AND HOME MAGAZINE WANTED IN EVERY LOCALITY.

Send for terms and sample copies. Specially liberal commission allowed for obtaining new subscribers.

The Farmer's Advocate, London, Ont.

# The Angle LAMP

AN IDEAL CHRISTMAS GIFT



### OUR PROPOSITION

is to send you a light which, burning common kerosene (or coal oil), is far more economical than the ordinary old-fashioned lamp, yet so thoroughly satisfactory that such people as ex-President Cleveland, the Rockefellers, Carnegies, Peabodys, etc., who care but little about cost, use it in preference to all other systems. We will send you any lamp listed in our catalogue "19" on thirty days' free trial, so that you may prove to your own satisfaction, that the new method of burning employed in this lamp makes common kerosene the best, cheapest and most satisfactory of all illuminants.

A LIGHT FOR COUNTRY HOMES that is convenient as gas or electricity. Safer and more reliable than gasoline or acetylene. Lighted and extinguished like gas. May be turned high or low without odor. No smoke, no danger. Requires filling but once or twice a week. It floods a room with its beautiful soft, mellow light that has no equal.

Write for our catalogue "60," and our proposition for a 30 Days' Free Trial.

THE 1900 WASHER CO.,  
357 Yonge St. Toronto, Ont.

## Bagpipes

We're the largest Bagpipe dealers in North America.



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

FREE CATALOGUE

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

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

Repairs promptly done. Write for catalogue to-day.

## ORME

Ottawa, Ontario.

## CENTRAL Business College

STRATFORD, ONT.

A Commercial school of the highest grade. A school without a superior in the Dominion. Catalogue free.

ELLIOTT & McLACHLAN, PRINCIPALS.

Write for "SEAL OF FORTUNE" to Canada's Leading Business School.

## THE NORTHERN Business College

OWEN SOUND, ONTARIO.

Students admitted any time. Information free.

C. A. FLEMING, PRINCIPAL.

## 7% GUARANTEED

Returns absolutely secure. A postal card will bring you information of a highly satisfactory investment.

ROBERT E. KEMERER,

Confederation Life Building, Toronto, Ont.

# The Farmer's Advocate

## and Home Magazine

"Persevere and Succeed."

Established 1866.

Vol. XLIV.

REGISTERED IN ACCORDANCE WITH THE COPYRIGHT ACT OF 1875.

LONDON, ONTARIO, DECEMBER 16, 1909

No. 899

### EDITORIAL.

With a lot of money invested in farm machinery, why is it not all under cover?

Young man on the farm, plan now to take in one of the agricultural college short courses this winter. It will do you good.

Not only do we need more labor on the farm to increase its product and its profit, but the labor must be skilled.

How many crops during the past season would show a net profit, above all expenses, of \$143.56 per acre, as was the case with "The Farmer's Advocate" demonstration apple orchard?

A season's watchful care and feeding of a herd of dairy cows and fattening cattle may be made an excellent "short course" for the young man in the stable, if accompanied by a study of ventilation, sanitation and nutrition.

One of the encouraging signs of the times for Ontario feeders is the strong demand and advancing prices of beef cattle on the Toronto market, good exporters being absorbed for home consumption.

Agriculture is a dull book to many because its covers are closed. If you would open the covers and delve into a study of the most fascinating, practical problems connected with any occupation, subscribe for "The Farmer's Advocate," procure a few books and bulletins, and read up. Read with an open though judicial mind, prepared to seize hold of that which is good, and, as rapidly as means permit, put it into practice. There is something lacking either in the brain or in the education of anyone who finds farming dull.

The potency of the epigram is all too little appreciated. Editors and writers frequently throw in epigrammatic pointers, expressing universally-conceded truisms. Such have a value, notwithstanding their familiarity. The logical article convinces, but its points are liable to be forgotten. An epigram epitomizes a truth and clinches it in the memory. It is difficult to say how many of the most famous successes have been made by men whose characters were influenced and whose purpose fixed by these emphatic truths, conveyed in forceful style by a writer or speaker, who simply expressed that which everybody knew, but might otherwise have forgotten or ignored. There is much virtue in reminders.

Notwithstanding the Fruit Marks Act, or, to be precise, the Inspection and Sale Act, dishonest packing of fruit is still too common. Some packers are so brazen as almost to ignore the law, winking at and encouraging all manner of departures from the legal standards. If the Act is to mean anything, and prove a reasonable advantage and protection to the honest grower, these acts of crookedness must be relentlessly hunted down. To this end, we welcome the several long lists of prosecutions under the Act given out to the press this fall. It is regrettable that they should be necessary, but, being necessary, it is encouraging to see them made. Protect the honest grower and packer, and build up a profitable industry. Honesty is the best and only worthy policy.

### Fallacies in Support of Gambling.

An anti-gambling bill has been introduced into the Dominion House of Commons by H. H. Miller, M. P. for South Grey, one of the members of the House of Commons who seem to esteem it their duty to represent the agricultural community. The bill has been sent on to a special committee, where the old, exploded arguments are being brought up that bookmaking is necessary to maintain racing, and that racing is necessary to encourage horse-breeding. More absurd fallacies have rarely been offered for the public to swallow. In the first place, it is not true that racing is necessary to improve the breed of horses. On the contrary, it has probably done more to injure two breeds than it has done to improve them. It has converted the Standard-bred, or the stock from which it has sprung, into an attenuated racing machine, not nearly so valuable for utility purposes as though it had been bred with more regard to conformation and scale. Undoubtedly, racing focussed early attention upon the breeding of the blood horse, and perhaps helped to develop it by selection of the fittest, but here, again, has it not tended to produce a race of weedy, hot-tempered, and dubiously useful stock? What has racing done to improve the breed of Clydesdales, Shires, Hackneys, or, in fact, any of our most useful breeds? In short, racing is necessary only to improve the breed of race-horses—not to improve our utility stock at all. Even if racing were necessary to improve the breed of horses, and gambling were necessary to encourage racing, would we be justified in sanctioning a policy which required an abuse to maintain it? Candidly examined by anyone with his eye fixed upon the general good, and not upon a selfish privilege or a sordid, selfish gain, the whole miserable argument falls to pieces like a house of cards. Race-track gambling is a problem that must be grappled with in Canada. It was bad enough before; it is worse now, since the radical legislation in many neighboring States has driven the dissolute army of race-track followers over to Canada. It is scarcely conducive to our national pride to preserve, under the ægis of British majesty and law, resorts at Windsor and Fort Erie, serving as rendezvous for the debauched and sporting element of such cities as Buffalo and Detroit.

### Better Methods of Training Colts.

Almost every farmer is interested in the subject of training colts. Nearly every one has done something at it, and each is satisfied in his own mind that he has a pretty good way of handling young horses at this interesting and important stage. It was, therefore, rather a delicate task imposed on "Whip," of deciding which competitors were entitled to the prizes in the colt-training-essay competition. However, his own well-established reputation as a horseman and writer will be generally accepted as prima facie evidence of just judgment. Certainly, the winning essay, published in this issue, details a rational, systematic and humane method of initiating colts into the gentle art of human service. If more of them were "broken" or trained in that way, there would be fewer vicious horses. Mr. Hamilton's essay will be succeeded by excellent articles of other essayists, all of which will be followed with keen interest by tens of thousands of appreciative readers. We need not recommend reading these articles. They will certainly be read, and read widely. We shall, however, be pleased to publish instructive and pertinent comments either upon the methods or the articles describing them. A more practical and popular feature has rarely if ever been taken up in the agricultural press.

### Scientific Education for the Farmer.

Last month, Archibald MacNeilage delivered an address to the West of Scotland Agricultural College Society, on "Scientific Education for the Farmer."

A mere list of the scientific problems enumerated, which the man who pursues mixed farming, all the world over, has to face, would nearly fill a page. His success and profit are in direct ratio to his scientific knowledge, however gained, and the skill with which he applies it.

He laid down and defended the propositions that:

This kind of education must begin in the day school. The child must be familiarized with nature. The rural school need not have a garden; if things are right, there will be a garden at home. The prime necessity is not a department-drafted scheme, but a teacher in love with the work. The appointment of a town-bred man or woman as teacher in such school is only possible where the aim is to turn out clerks and typists.

The student who comes to the agricultural college, without having been on the farm, is a hindrance. The details of farm practice should be taught on the farm.

An agricultural college in a city is an incongruity. It should certainly be planted in the country, and the students should be made familiar daily with the routine of farm work.

### The Young Man and the Farm.

Upon the attitude to his work of the young man, whether son or hired help, on the farm, will largely depend his satisfaction and success. Speaking from a lengthy and exemplary experience, and wider opportunities of observation than fall to the lot of many, John Campbell, in his wholesome article on the boy and the farm, in the Christmas "Farmer's Advocate," brought to bear on the subject a fulness of knowledge that makes his counsel of great value. Indeed, one has but to consider fairly the advantages of country life and the present outlook to realize that Mr. Campbell's advice to remain on the farm is sound, for the prospects are good, and growing better. He is well aware how the allurements of town life or speculative change work out. He knows how many dreams are unrealized. To farm well is a matter of knowledge and skilled application. It is not picked up in a day or a year, but every season spent aright on a farm adds so much value to the young man's capital of experience under those conditions, as well as what he earns. The father or the employer does well to encourage the young man by consultation with him, and by liberal dealings, if he desire faithful and efficient work. The latter, if he wishes to advance and win commendation, should make it his daily aim to promote the best interests of the farm. Not with how little can I manage to get through the day, but rather how well and how much can I accomplish. Entrusted with the care of stock or property, it becomes, in a sense, that of the young man himself, for the time being. How can I best care for it? should be his question. He should determine that the horses and harness will be in spick, span order when they go upon the road. If he is caring for a herd of dairy cows, or fattening a bunch of cattle, his ambition should be to make them the best on the line or in the township. Under his charge, cobwebs will not accumulate about the walls or windows of the stable, nor the floors be littered with dirt. Tools and appliances he will keep in their proper places, and so plan his work as not only to do it well, but to save unnecessary steps and loss of time. It

## THE FARMER'S ADVOCATE AND HOME MAGAZINE.

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pays to study, by every available means, the why and wherefore of each operation in the day's work, in order to improvement. This will invest it with an interest that it never possessed before. To take pride in one's work will almost certainly insure its successful performance. In nine cases out of ten, he who does the best for "the boss," will do the best for himself. At this season it is well to recall that, while dollars are useful, dollars are not the best thing in life. The spirit of thoughtfulness for others will do much to make the wheels of life turn smoothly. The fathers, by reason of advancing years, cannot toil as they once did, and it becomes the younger men to relax somewhat the burdens of the older, and in the days to come, one will usually discern, on looking back over the road of life, that there was gain, rather than loss, in keeping a rein upon the restlessness of youth for the sake of others.

### "Get Going, My Boy."

An Ontario farmer has three sons in the North-West. Writing to one of them recently, he penned the following: "Of course, most of us in starting, have to work for someone else. But, speaking generally, there is nothing in it, unless, as the one out of ten thousand, you reach a point where you direct the movements of others, and receive a proportionately high salary. Now, my boy, if you could start off with my experience of life, and your youthful vigor, taking advantage of the many opportunities presenting themselves, in a very few years you might be doing things. Just as long as you fill a laborer's position, no matter what the laborer's wages are, you work for less than would support you. That is, supposing the average laborer's time to be 30 years, which I am inclined to doubt, he could not save enough to keep him for the next ten. Why? Because human labor (and life) are the cheapest things on earth. Always so many who can only labor. Mr. Jones, who returned from England last week, told me he was glad to get away. So much being, as when he was, so many out of work. At the same time in Canada, such is not the

case; but I can recall when it was, and history repeats itself. Of all the trades, the man who tills the soil suffers, in the long run, least of all. Undoubtedly, during the 'good times,' the man who farms—the farmer—seems to gather things together the easiest. Much of that is due, however, to the farmer's indifference and the ease with which he spends his money. I am saying all this, because I would like to see you heading out for yourself at the earliest moment. Yes, I know that working for someone else relieves one of anxiety. But it is the planning for oneself, and anxiety as to the outcome, with more planning to insure success, that brings out whatever is effective in one. To work for someone else is to be just a horse. If you'll look around, you'll probably notice that the fellow who is doing things is not on someone else's payroll. Don't have to be called to work by the sound of somebody else's whistle or bell too long. Read this a few times; let it sink into your brain. Get going, my boy."

### A Christmas Suggestion.

For a friend or neighbor engaged or any way interested in agriculture, there is only one present that will be more appreciated and do him more good than a copy of "The Farmer's Advocate" Christmas Number. That one superior present would be a paid-up subscription to the paper for a year or more. Your present will thus begin with a handsome Christmas issue, and continue for 52 consecutive weeks, bearing your friend a weekly remembrance that cannot fail to stimulate his interest in agriculture, and if he be a farmer, help to make him a better farmer than he otherwise would be.

### Stallion Syndicates.

Defects of stallion syndicates have been pointed out by our correspondents. Despite the fact that in all too many cases syndicates have proven to be disastrous impositions on those honest farmers who put up their good money, inexperienced persons should not take it for granted that syndicates are altogether undesirable.

Much depends on the method of syndicating. If an unscrupulous horse-owner undertakes the formation of a syndicate, and turns over an inferior stallion to unsuspecting farmers, then all is wrong. There probably are a few firms syndicating stallions whose intentions are honorable, but, generally speaking, the proper way is for the farmers of a district to form their own syndicate, and then allow one or more of their most capable and responsible members to arrange for the purchase of a stallion of merit.

Experience shows that the ideal way of forming stallion syndicates—or any other organization—is for one or two or several men of the district interested in the enterprise to devote time and energy to perfect the organization, and then make a purchase, having the animal scrutinized by an expert horseman, and subject to passing as registered in the National Live-stock Records. Practically all the breeds represented in Canada now have records at Ottawa, in connection with the National system. Inquiries regarding pedigrees of pure-bred stock recognized in Canadian books are always promptly attended to if sent to National Live-stock Records, Ottawa. If these precautions are taken, the stallion syndicate generally can be termed a success. Of course, there is a chance that a sound horse, of good appearance may prove to be an uncertain breeder. In many districts this plan has worked out well, and a general improvement in horseflesh has been the result.

Canada requires more horses, and in many districts horses of better quality. The introduction of superior sires is the means of bringing about this desirable state of affairs. If private persons will not bring in the proper kind of stallions, farmers can make no mistake in the formation of a syndicate in a businesslike way. It is

the syndicate promoted by an outsider, with an ulterior purpose, that has brought the system so often into disrepute.

## HORSES.

### Training the Colt.

FIRST-PRIZE ARTICLE IN THE COLT-TRAINING-ESSAY COMPETITION.

By many the term "breaking" is used when referring to the education of the colt. My experience, however, has led me to conclude that the word "training" is more applicable, for this is what the colt requires; and if this training or educating be properly accomplished, there will be no need of "breaking" the colt, as breaking is only required when the colt has, through faulty training, acquired some trait of which he must be broken.

With extended experience, we find that colts are of varying dispositions. Not only is this apparent in colts of different breeding, but also among those of the same breed. Accordingly, we must at times vary our system somewhat.

My first conception of the art of training the colt was to hitch him with an older horse or two colts together, without any previous preparation, and expect him, by some way not easily explained, to grasp his whole education at once and go to work. I have since learned that such a course is out-of-date, and, while in a few cases we may get along if our colt be not a highly-bred, nervous animal—and we should know our colt well enough not to take any such chances—the results are not as good as when some time and care have been spent in gradually training the colt for such an experience.

As I always have my colts taught to lead (and as very few fail to accomplish this much of the colt's training satisfactorily, at least), and to allow me to pick up their feet, and to have their legs handled during the first twelve months of their life, I need hardly include this in their training proper, which is the "breaking" so often spoken of by many, given to the otherwise green and unhandled colt at two or, generally, three years of age.

As regards this later training of the colt at this more advanced age, it is difficult to offer definite and infallible rules, for the colt has developed a will and considerable strength, which he has always, thus far, used in obedience to his will. My first rule to observe, in starting to train the colt, is to practice patience, kindness and firmness always. In the first lessons, do not use harsh words, or the whip, unless absolutely necessary. A second rule which I always observe is that, under whatever conditions we are training the colt, we should have whatever harness we are using—and if he be hitched, the rig to which he is hitched—so strong that there will be no danger of anything breaking if the colt should offer any resistance, or make a sudden plunge or any movement unexpectedly. This is very important, as the colt very readily learns during the first lessons, and so should not be able to free himself of any part of the harness, or to win out over his trainer, who is endeavoring to gain mastery, through some part of the equipment giving way.

With the colt halter-broken, and accustomed to my handling him in the stable, I proceed to give him considerable training in the stable in a roomy box stall before taking him outside or hitching him. I always aim at introducing each part of his training very gradually, and having him learn each lesson well. The first step is to get him accustomed to the bit—a very important step, for a horse, in after years, with a poor mouth is not desirable. For the purpose I use a light, open bridle and an ordinary straight bit, putting this on him and turning him in a box stall for a short period of time at first, and gradually lengthening the periods. He soon learns to wear the bit quite naturally, and is now ready to have a little pressure applied to it, which teaches him to submit to the reins later. Accordingly, I now put a set of single harness (omitting the reins) on him, fastening all parts very securely so he cannot get them off or become tangled in them. Then I fasten a short rein from the rings on the back pad, along each side of his neck, forward, fastening to the rings of the bit on each side, making a part of this rein elastic, and tying it so as to exert very little pressure on the bit at first, to be gradually increased until he learns to wear this harness without fighting the bit or plunging. I give him two lessons, of an hour or two duration, twice daily for a week, and by this time he has learned to wear the harness quite naturally. Now, this training accustoms the colt to the pressure of the rein, and the touch of the different parts of the harness to his body, and to be harnessed, bitted and unharnessed, and is a very decided step accomplished in his training.

I now like to take him outside with the harness on, keeping inside of some enclosed yard, and give him his first lesson in driving, unhitched.

Care must be exercised in this handling that he does not, by a sudden plunge or increased speed, get away from the driver, and that is why I keep inside of an enclosure, rather than on the road, so that he could not get very far if he should get loose. I always find it very advisable to put the reins for this training through the shaft-tugs, rather than through the rings on the back-pad, as with them lower you can keep your colt straight in front of you, and so prevent him turning, as he is very likely to do if he can work the reins over his hips when they are through the rings on the back-pad. During these lessons I teach him to obey the restraint of the reins, and my bidding to go ahead when I tell him, and to stop and stand when I say "whoa!"; to move backward when I say "back-up!" and to slacken his pace and ease up when I say "steady!" Now, I consider this the most important part of his training when well learned to go ahead when told, and to stop and stand when told; and right here, above all things, do not, by a confusion of these terms mix or muddle the intellect of the colt, so that he does not know what you want him to do half of the time. Use your terms each one for each purpose, always.

At this stage of his training, I consider him ready to hitch and drive. Now, too great precaution cannot be taken at these first hitchings to see that everything—I mean the harness and rig—are strong, not likely to break, and adapted to the purpose you are using it for. Bad habits are very readily acquired at this stage, if anything goes wrong and you are unable to control your colt. I do not hitch the colt double the first time, but single, to a cutter with high shafts and cross-bar, and with sufficient length of shaft to obviate any danger of the colt striking the runner with his foot while in motion; or, if it be summer, a two-wheeled cart is preferred. I always harness him in ordinary single harness, hitching him quite snug in the harness, especially the breeching and side straps, using a straight bit and an ordinary side check, and at the first hitchings use what some term a "kicking strap," merely a strap fastened to the shaft, passed over the colt's hips, through the back-strap, and down, fastening to the other shaft; this prevents him getting out of the shafts, if he should try to. Give him short but frequent drives at first, gradually increasing the distance, so as not to tire him unduly. This also accustoms him to being hitched and unhitched. If the colt seemingly learns very fast, and is driving very nicely, always bear in mind that he is still only a colt; be ready for any emergency, harness him, hitch him, and drive him carefully.

To teach him to stand tied in harness, I use a strong rope, long enough to go around his neck, and knot, then through the ring of the bit, and tie to the object I am tying to. Be sure this rope is strong. I generally get a new rope for each colt, as the surest way to develop a puller is by using at first a poor halter. If you would save a broken shaft, perhaps, and probably a general mix-up avoid tying to a post or tree, or single object, or anything that at first the colt might

attempt to walk around, but rather tie to the side of a building until he has learned to stand.

When I finally hitch him double, I am very careful that there is nothing about the equipment that will irritate the colt. Colts well trained single are often very easily spoiled on being hitched double; the presence of the other horse is something altogether new, and they seem very easily irritated. I am very careful to hitch to a wagon or implement with a high pole, so that the whilletrees, or tugs, cannot possibly touch them on or near their heels, making them also pretty tight in the harness to avoid any slackness of tugs or belly-bands, that they might easily step over or through. Then, in turning at first double, always turn away from the colt for quite a while, as the pole often teases them. If, however, the colt should show any tendency to irritation, by switching the tail, or attempting to kick, by all means be very gentle and patient, and avoid any outburst of anger or whipping or loud talk, and patiently work away, all the time coaxing the colt, giving it every chance. I have handled many colts that were almost spoiled, and by kindness and coaxing only, although it has often taken a long while, I have completely won them over to be the most quiet and docile of horses. There will be times and cases where the use of the whip is imperative to overcome a stubborn will; at such times use it, but not unmercifully. But my experience is that firmness and common sense, practiced from the first, without undue whipping, is the better course, if it can be worked at all.

Although this may all seem some trouble, the trainer who loves a well-mannered horse has all the compensation he looks for if this be the result of his training. (CLARK HAMILTON, Dundas Co., Ont.)

## LIVE STOCK.

### Feeding the Pig.

The best feeders of stock seem to have a knack of knowing just what to feed, and how much. What to others may appear to be intuitive knowledge, will, on examination, usually be found to be the result of keen observation and painstaking, coupled with long experience. On coming into a stable, and looking at an animal, such a man will at a glance take note of a dozen things that the uninitiated would scarcely see, even if they were pointed out to him—such things as the condition of the droppings, the look of the hair, the brightness or dullness of the eye, the pose of the body, the curl of the tail, etc., from which he can unerringly interpret the thrift, or lack of it, in the animal viewed. It is men of this class, however—men who have learned a great deal without help—that are most ready to welcome fresh information on the feeding question, such as can be found in published analyses of foods, and in the reports of

experiments conducted at the different experiment stations.

At the Agricultural Experiment Station at Urbana, Illinois, an investigation was started five years ago, the purpose of which was to develop a new feeding standard for swine. The work is not completed yet, but circulars are issued from year to year showing the progress to date, and emphasizing such conclusions as have been established. Thirteen experiments in all have been conducted, involving the use of 618 pigs. Circular No. 133, published last month, has reached us, and we note a few of the more important conclusions:

It has been found that exercise is essential to best results. For maximum and most economical production, it seems absolutely necessary for the young and growing pig to have an abundance of exercise. Its chief value seems to be in the influence it exerts upon the respiratory and digestive functions. If pigs are changed from lots where they have had considerable exercise to lots where they do not have so much, their feed must be correspondingly reduced. Hence, they will also make smaller and usually more expensive gains.

Sudden changes in rations are warned against. As it takes time for a pig to become accustomed to a change, so that he will eat, digest and assimilate the new ration, as well as the old one, the more gradually such changes are made, the better.

It was found profitable to have pigs on pasture. By having access to grass, the pigs made better use of the foods given them than if these were given them in a small, dry lot.

Best results are obtained if a pig under five or six months of age is not fed more than he can fully make use of. In order to limit the nutrients to the amount that the pig can most profitably use, roughages may be introduced into the ration at this time. These serve a double purpose: First, they satisfy the appetite of the pig; and, second, they have a tendency to increase his capacity, so that, later in life, when he otherwise would not eat so much as he could profitably use, he will be able to consume a larger quantity of nutrients. This is in accord with the practice of the best Canadian hog-feeders, who make liberal use of clover or alfalfa pasture in summer, and of mangels or sugar beets in winter.

There is no standard for the amount of mineral nutrients required by the pig, and since the amount of mineral matter in the soil, the water and food supplied, varies so greatly, it is necessary, in order to get best results, to give the pig free access to a number of mineral substances, so that he can supply himself according to his appetite—a pretty safe guide. Salt, charcoal, air-slaked lime, bone meal (the two latter particularly in corn countries), wood ashes, clean soil, and soft-coal cinders, should be placed where the pig can get them at will.

It has been noted that the amount of water that a pig required, in proportion to weight, lessens steadily until the close of the fattening period. A pig, also, in his youth, needs a greater percentage of nitrogenous food than he requires in the later months of his life. If he has been started right, corn alone will do to put on the finish.

Unless pigs are running at pasture, three feeds per day are found to be more profitable than but two.

### Barley Chaff as Stable Absorbent.

A bright young farmer, discussing the matter of stable absorbents, informed us the other day that he always saves the barley chaff for this purpose when threshing, finding it excellent to scatter in the gutter to soak up urine. He even takes his wagon to some of the neighbors' barns when they are threshing, and carefully gathers up what they would otherwise merely blow out into the barnyard. The saving of nitrogen thus effected represents a considerable sum, realized through the medium of increased crop production. No farmer can afford to waste liquid manure. If he has not enough straw or chaff, perhaps he can use air-dried peat, or else he may buy land-plaster or raw ground phosphate-rock. Even dust might be used, but do not employ ashes or lime.

### Standing in Their Own Light.

I have taken "The Farmer's Advocate" for a year, and would not be without it as long as it is published, regardless of cost. It more than pays any man. Those who do not take it are standing in their own light. S. VAN SICKLE, Wentworth Co., Ont.

"There cannot be too much said about the benefits of underdrainage," writes a Carleton County Subscriber. "I had this year, off an acre and a half of underdrained land, fifty-four tons of turnips. Had it not been drained, I would not have had any such crop."



Tried and True.

## The Jersey Cow.

By Richard Reid.

For more than two hundred years the Jersey has existed as a distinct breed of cattle. Their origin is more or less shrouded in mystery. There are many theories as to what crosses produced them, but no one has satisfactorily solved the problem. The sacred cattle of India closely resemble the Jersey in many particulars; but, whatever their prehistoric origin, we know that in the seventeenth century the Channel Islands were stocked with cattle from Normandy and Brittany, in the northern part of France. But in 1789 the States of Jersey enacted laws forbidding the importation of cattle from France, and a few years later, the introduction into the Island of any member of the bovine race; a single exception was made in favor of steers for beef purposes.

Whatever benefits should result from keeping a breed strictly pure, the Jersey should possess these in a supereminent degree. Bred on an Island where no other cattle are allowed, by a rural population who were interested in the butter products only, there being little demand for milk, and combined with a system of mating for a special purpose for generations, we have, as a result, today, the highly-developed modern Jersey, that holds the proud position of "Queen of the Dairy."

The Jersey is the purest bred of all the domestic animals, the long line of special breeding fixing the characteristics so firmly that every animal of the breed possesses the propensity to transmit its own qualities to its offspring. As a proof, cross them with any dairy or beef breed, and the result of the first mating will show that the Jersey characteristics will predominate over that of any other.

One of the causes which has led to the wonderful improvement of the breed on the Island is that no bull is admitted for registration unless he has scored a certain number of points in conjunction with his dam, and the bull scoring the highest must remain in the parish for a length of time, at a nominal service fee, thus safeguarding the vital interests of the breed.

The earliest record of importation of Jerseys, consisting of twelve cows and heifers, into England, was in 1747, for the Duke of Richmond, at an average cost of £4 9d. In 1812, Lord Braybrooke imported twenty-three cows and a bull, at an average cost of £19, and to-day it is something rare to find an estate in England without one or more of the fawn beauties to produce the rich cream and milk for the nobility, and at the same time add beauty to the landscape of that picturesque country.

The first importation of Jerseys to America dates back to 1817. The Jersey cow was at first the fashionable ornament for rich farmers' lawns; but as her excellent dairy qualities became known to practical men, she became an important factor in the development of the dairy industry in the United States and Canada. So prime a favorite has she become that to-day there are many more registered Jerseys on the American continent than of any other breed of the bovine species; as a fact, there are more in the United States than all other dairy breeds combined, and the Jersey cow has attained this proud position solely on her ability to produce the richest milk and cream, and the highest quality of butter, at the lowest cost.

There is no breed of cattle on the continent today that sells for as high prices as the Jersey. At Mr. Cooper's annual sales, held in Coopersburg, Pa., there has been a steady advance in prices during the last ten years, one breeder paying \$10,000 for an aged bull, and the same purchaser, in the following year, \$10,200 for an eight-months-old calf from the same herd, the females selling from \$500 to \$3,600 each.

The first noted herd of Jerseys in Canada, was established in St. Lambert, Que., by R. H. Stephens, from a foundation procured from the Royal herd at Windsor, and sometimes referred to as the Dauncey-bred cattle. There has been no strain of Jerseys that has exerted so great an influence for lasting good on the dairy interests of this continent as the St. Lamberts. The females of this particular family were all large framed, deep-bodied, strong-constituted cows, having shapely udders, and being heavy producers. There are very few Jersey herds in Canada to-day that do not contain one or more animals possessing St. Lambert blood. Much credit for the development of this family must be given to Valancey E. Fuller, late of Hamilton, Ontario, and the late Captain Roloh, of Markham. So great has been the demand from the United States for pure St. Lamberts, that there are very few left in Canada. Too much cannot be said in praise of the work done by the late Mrs. E. M. Jones, of Brockville, in the interests of the Jersey breed in particular, and of dairying in general. This esteemed lady's work—"The Poor Man's Cow"—has found its way into the home of almost every buttermaker on the continent. It has been translated into several languages, and has done much to revolutionize the care and feeding of the dairy cow, and the handling of her products.

During the last five years there has been an introduction of many Island-bred cattle into this country, and their influence on the native-bred animals has not been very marked as yet, but there is no reason why the result of such a cross should not improve the appearance of our native Jerseys, and retain at the same time, and possibly improve, their usefulness at the pail.

There are many Jersey herdbooks on this continent for the registration of this particular breed, but the two most important are those of the American Jersey Cattle Club, of New York, and the Canadian Jersey Herdbook, of Ottawa. The first volume of the former was published in 1871. This Club was incorporated in 1880, and is to-day the wealthiest and most up-to-date organization

derful constitution, and the power to assimilate a large quantity of food.

The Canadian Jersey Herdbook was established in connection with the National Live-stock Records at Ottawa in 1906, on lines almost identical with that of the American Jersey Cattle Club. To January 1st, 1909, there have been recorded 683 animals, and 125 transfers of animals have been registered. The Canadian breeders are slow in transferring their patronage from the wealthy and influential Club to the south of us to that of the younger and weaker organization in our own country, but a feeling of patriotism, if no other, should induce the Jersey men of Canada to support the Club that is just as reliable, and in time will wield as great an influence as that of our

luster cousin across the line. A Record of Performance has been instituted by the Department of Agriculture at Ottawa for all dairy breeds. The Jersey breeders have not as yet availed themselves of the privileges of this Record to any great extent, although some 15 cows are under test at present.

The value of a dairy cow is not the amount of her products, but the net profit on a year's work, and this is where we claim the Jersey cow leads all others, especially in the production of cream and butter. Short-term tests are of very little value to the practical dairyman. The only true test is the net profit for a year.



A Typical Jersey Bull.

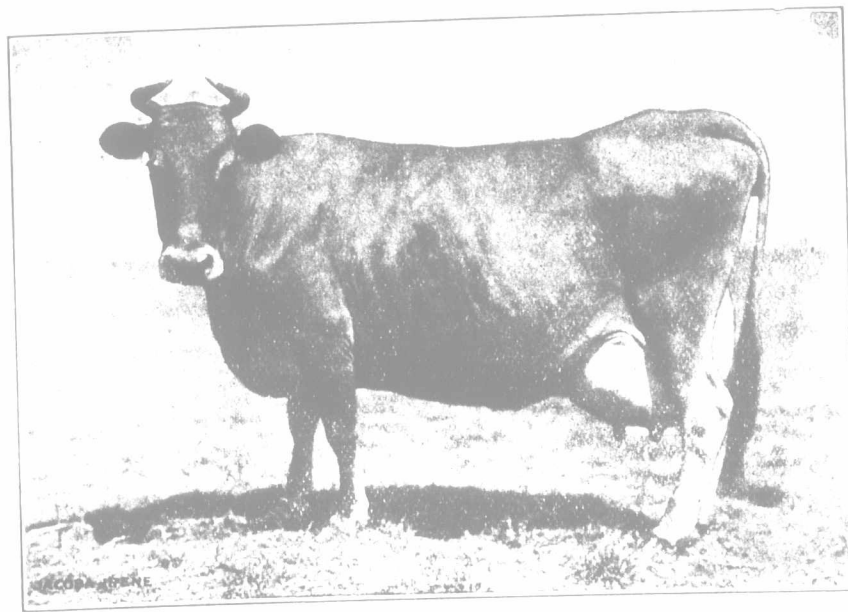
of its kind in America. The rules and regulations governing registration are very rigid. No animal is admitted for registration unless it can trace in unbroken lines to the Island. The Club has an agent on the Island who looks after the exportation of all cattle to America. Some 500 were sent across the Atlantic last year. Up to date, there have been registered in this book 86,938 bulls, and 232,055 cows. There is also a Register of Merit for cows making 700 pounds and over of butter in a year. These tests are supervised by representatives of State Agricultural Experimental Stations, and are, therefore, authenticated tests. The numbers entered to date are: Bulls, 43; cows, 527. No bull is admitted until he has four daughters which have passed the test. To September 11th, 1909, nineteen Jersey cows were recorded. The most notable is Jacoba Irene 146113, A. J. C. C. Her test began January

There have been three public breed tests on this continent: 1893, at World's Fair, Chicago; 1901, the Pan-American, at Buffalo; 1904, Louisiana Purchase Exposition, at St. Louis. At Chicago there were three tests: (a) a 15-day test for the economical production of cheese; (b) a 90-day test for the economical production of milk; (c) a 30-day test for the economical production of butter. Three breeds were entered for each test, Jerseys, Guernseys, and Shorthorns. In test (a) and (b), 25 cows from each breed were entered, and in (c) 15 cows from each breed. The results showed that the Jerseys (1) gave more milk, (2) made more cheese, (3) made more butter, (4) gave more solids other than butter-fat, (5) required less milk to make a pound of cheese, (6) required less milk to make a pound of butter, (7) produced a pound of made cheese of higher quality, (8) made butter of higher quality, (9) demonstrated their ability to profitably assimilate a greater quantity of feed and return a net increased profit.

At Buffalo there were three classes: (a) net profit butter-fat alone considered; (b) net profit butter alone considered; (c) net profit in total solids. Ten breeds, 5 cows from each breed, were entered from May 1st to November 1st. The results showed that in tests (a) and (b) the Jerseys stood second, close up to their cousins, the Guernseys. There is no doubt that if the test had extended over the full year, the Jerseys would have outstripped all competitors in class (c) the Jerseys stood seventh.

At St. Louis there were two tests: (a) economical production of butter for 120 days; (b) economical production of milk for all purposes of dairying. Three breeds were represented in test (a), Jerseys, Holsteins, and Brown Swiss; these and Shorthorns in test (b). The result showed that the average net profit per cow in test (a) was: Jerseys, \$39.52; Holsteins, \$29.23; Brown Swiss, \$23.13. In test (b): Jerseys, \$53.91; Holsteins, \$16.85; Brown Swiss, \$38.69; Shorthorns, \$30.18.

A typical Jersey cow should combine beauty with utility. To many, "Handsome is that handsome does" but there is no denying the fact that beauty of form should play an important part in



Jacoba Irene.

25th, 1908, and ended January 24th, 1909. This cow gave, in the year, 17,253.2 pounds milk, averaging 5.523 per cent. butter-fat. Estimating butter at 83 per cent. fat, allowing for losses in creaming and churning, this would make 1,126 pounds 6 ounces of marketable butter. Weight of this cow, 950 pounds; age, 9 years 10 months at the beginning of the test; cost of feed, \$96.13; and, estimating the butter at 25 cents a pound, there is a profit of \$185.16. Jacoba dropped a calf in 1908, and one in 1909. Two other cows entered in the Register of Merit this year made over 1,000 pounds each of butter. From the illustration it will be seen that Jacoba has a won-



all our domestic animals. Who would take pleasure in driving an ungainly "skate" through one of our city parks, even if he had a record of 2.10 on some grand-circuit track? Every breeder should derive a certain amount of pleasure in having on his farm as handsome specimens of his favorite breed as it is possible to have. In purchasing a cow of any of the dairy breeds, I would demand first that she be a large and economical producer of dairy products. This can only be ascertained by a yearly test, which is not always available, but there are outward indications of utility which help us to arrive at her value as a producer.

The modern Jersey should have a large and shapely udder, extending behind, and coming well forward, almost to the navel; quarters nicely rounded; not too level a sole, as level-soled udders invariably produce short teats; the teats should be long enough to milk with the full hand, and placed one in the center of each quarter. The udder should fit snugly to the body, and should be free from excrescences of all kinds. She should be a free milker—not too free, as then she is apt to leak when the udder is full. Her milk veins should be elastic and tortuous, and I like to see the veins of the udder quite prominent. Her body should be large, roomy, ribs well sprung and deep, with sufficient spacing between the floating ribs; strong through the heart; back straight from withers to setting of tail; loose vertebrae; good length from hip-bone to rump; hips thin, and set wide apart; withers narrow, and sloping gradually; tail long, well set, thin, and terminating with an abundant switch; bones small, clean and shapely; neck long, thin, and straight; head clean-cut, free from meat; face well dished; eyes prominent and clear; jaw strong; nostrils large; horns small, tapering, and curved in; skin a rich golden color, and covered with a silky coat of hair. Any color is admissible; none are barred from registration on account of color, but solid tawns are preferred, with black nose and switch, and the characteristic light shade around the muzzle.

The bull should be deep-bodied, with well-sprung ribs; straight, well-muscled back; strong through the heart and across the loin; wide between the hips; well cut-up; rudimentaries long and well placed; withers narrow and sloping gradually; breast wide; dewlap loose; crest strong and masculine; eyes wide apart; face dished; horns shorter, and not curved as much as the female's, with a thick coat of curly hair on forehead; nostrils large; jaws strong; nose black, and the muzzle encircled by the light characteristic band; skin mellow, thin, yellow, and covered with a glossy coat of hair. No bull is barred from registration on account of color, but solid dark fawn is preferred by most breeders. He must have a lordly carriage, springing step, as an indication of vigor.

The chief characteristics of the Jerseys are:

1. Their ability to produce the best quality of milk, cream and butter, at the lowest cost.
2. Their persistency in milking. The writer owned a cow that milked for four consecutive years, never missing a day, and dropped a heifer calf each year, and the last year gave 10,386 pounds of milk which made 586 pounds 12 ounces

butter. This cow could not be forced dry in that time without impairing her constitution. In our herd of 26 cows, in 1908, the average dry period per cow was 16 days.

3. Their longevity. In buying a machine, its durability and life should be an important factor. No breed of dairy cattle are as long-lived as the Jersey. Witness that grand cow Messina, that gave for Mrs. E. M. Jones 650 pounds of butter in her sixteenth year; Countess of Lakeside, 19 pounds 7 ounces of butter in seven days, at 15 years; Bijou of St. Lambert, 15 pounds 4 ounces of butter in seven days, at 16½ years. It is not uncommon to see several cows in a Jersey herd over 13 years of age, and giving profitable returns for the food consumed. The writer saw on the farm of Geo. Smith, of Grimsby, two St. Lambert Jerseys, one 21 years of age, and the other 22 years, both springing to calve, with perfect udders, and apparently good for another year or two of usefulness.

4. They are a hardy race of cattle, able to withstand the rigors of our northern climate equally as well as the burning suns of Mexico and Central America. They are taking the lead not only in these countries, but in Brazil, New Zealand, Australia, Sweden, and almost every State in the Union to the south of us. Their milk flow is not materially affected by sudden changes of temperature. They are not susceptible to disease; a case of tuberculosis has not been known on the island.

5. Three Jerseys can be housed, fed and pastured where only two of the larger breeds can be kept. This is an important fact, as the tendency of high-class dairying is inevitably toward a reduction of acres and a greater number of cows.

6. As a family cow she is unsurpassed. Her beauty, her gentleness, and, above all, the superior quality of her milk and cream, commend her to the thoughtful consideration of any housekeeper. To possess a Jersey is to be inspired to nobleness, and to care for one is to be educated to gentleness and an appreciation of beauty.

The modern Jersey cow is a business cow—one bred for business—and, if cared for in a businesslike way, will enable the practical dairyman to make money in his business, and be a source of pleasure besides.

#### Echoes from the International.

The grand champion steer brought 18 cents per pound, the lowest of any grand champion at Chicago.

The grand champion car lot, yearling Shorthorns, brought \$15 per cwt., besides winning \$1,925 in prizes.

Carnot, the champion Percheron of two continents, was sold by Crouch & Son to W. S. Corsa, Illinois, for \$10,000.

Judge Wm. Heap said: "I find in America as good cattle and as good feeders as can be found anywhere. At our great fat-stock shows in England we do not have as many animals as you do here, though we have more top-notchers."

The Morris Clydesdale geldings provoked the greatest applause of any exhibit at the International.

Sir Geo. Drummond's grand champion wether

is intended to tickle the palates of the residents of Rideau Hall at Christmas.

## THE FARM.

### Good Prizes for Essays.

As announced in the Christmas Number of "The Farmer's Advocate," prizes are offered of \$15 and \$10 for the two best essays on "The Advantages, Methods and Profits of Smaller Farms," to reach this office not later than January 20th, next. Other essays of such merit as to make their publication desirable will be paid for at our regular rates for contributions. About 1,200 words each is the length allotted for these essays. What is desired is practical information, clearly stated on the basis of experience with small-sized farms, whether devoted to fruit-growing, any form of dairying, poultry-rearing, beekeeping, growing vegetables or canning-factory crops, sugar beets, or a combination of these, usually called mixed farming. At this season, men (or women) can do no better than take a little time to write out an account of how they have conducted their farms, and the results. In sending in your contributions, mark full name and address on the MS. The experience of contributors of such articles always is that there is a decided benefit to themselves in thinking out a subject, arranging its facts in order, and putting them in black and white, even without the prize or remuneration, though the latter have their tangible value.

### What Variety for the Silo?

Editor "The Farmer's Advocate":

As a result of the many new silos erected this past season, many feeders will be using silage for the first time in their feeding operations, and so are eagerly anticipating results. And of those who have had experience in the use of silage, it may also be said that they, too, look upon the opening of the silo with a degree of interest, anxious to ascertain what the quality of the contents of the silo will be each season. So many factors enter into the making of the quality of silage that it is practically impossible to always have silage of the same quality. It may be stated here that, on this point, viz., quality, will depend very largely the results obtained by the new feeders of silage. Other factors, of course, have an influence, viz., quantity fed, the combination with other roughage, and amount of concentrates used in conjunction; but, even if correct practice on these points be followed, if the quality of the silage is poor, results will not be nearly what might be expected. Undoubtedly, the maturity of the corn and quantity of ears in the silage is the most vital point of all in regard to quality. While the length and heat of the growing season has much to do with the maturity and quantity of ears produced, the question of variety, I think,



Grand Champion Load of Cattle, International Live-stock Exposition, Chicago, 1909.  
Yearling Shorthorns, bred and fed by Oglesby & Keays, Elkhart, Ill. Awarded six prizes, totalling \$1,925.00.



Plowing the Beets: First Step in Harvesting.

has a greater bearing on this point. So men of experience are unanimous in the opinion that silage should be made of a well-matured, well-earied variety; in fact, a corn crop, to be profitable, either in the silo or out, must have ears, as well as a heavy yield of stalks. A second point of no small import is that the crop stand up well, to facilitate cutting and handling, by machine or by hand. In most of the corn-growing sections, the growing season, comparatively speaking, is a short one; so that every precaution that tends to insure early maturity should be observed. All growers are quite aware that there is a great difference in varieties, but there is also a great difference in conditions other than climatic which affect the crop, such as fertility of soil, vitality of seed, drainage, thickness of plants in row or in hill, and cultivation given growing crop. With these conditions right, and a proper selection of variety for a particular vicinity, success should be assured.

I have tried several varieties of corn for the silo, with varying results, endeavoring, always, to obtain the right conditions enumerated above. I have tried to plant a variety that will mature in a season beginning during the last days of May or the first week in June, and lasting to the 15th or 20th of September, and giving a large yield of stalks and ears. With the large-growing dent corns, many growers here have failed to accomplish this, and so have gone back to the common velvet flint or white flint varieties. We consider the yield of stalks too small from these varieties for silo purposes, although the yield of ears is large and always well matured. Our experience has included a trial of the varieties White-cap, Yellow Dent, Early Mastodon, Mammoth Southern Sweet, and a few other dent varieties not so popular; and, while these varieties all gave us a large yield of stalks, the ears, when any were produced, could not be matured in time for silo-filling, so that the silage was of very inferior quality. While the ears on these varieties sometimes showed up very well at time of cutting, when we were feeding the silage there was scarcely any corn to be seen at all, and, besides, the silage was always sour and soft. The variety that gives us best results is the improved strain of Leaming. In anything like a favorable season this variety gives us a heavy yield of stalks that stand up well, and produces abundance of ears, large and well matured, providing (and this is very important) that the seed be not sown too thickly in hill or drill. We sometimes, if the season is late and prospects not bright for a favorable growing season, mix with one bushel of Leaming seed, one-third of a bushel of white or yellow flint. This produces quite a few ears, but we do not like the practice, if it can be avoided, as these flint varieties send up a number of shoots which render harvesting more difficult; and when the season has been very favorable, and seed sown early, the Leaming seemed to completely outgrow and smother the smaller corn, which, under such conditions, would produce no ears.

We have, however, had poor results from Leaming when we did not get the improved strain. We are now very particular to get our seed early, and from a reliable dealer, and thus avoid disappointment as to strain. I have been told that this difference is owing to the so-called improved strain being Canadian-grown, while the old or original and later-maturing variety of Leaming is of American growth. On this point I have never been able, as yet, to get definite information.

Dundas Co., Ont. CLARK HAMILTON.

The mild November was welcomed by farmers for its saving of feed, its lengthening of the plowing season, and its copious rainfalls, filling the creeks and springs on which the water supply for stock depends.

### Glimpses of the Kent Sugar-beet Crop.

The sugar-beet crop has, in recent years, become one of the foremost in South-western Ontario. Essex, Kent, Lambton, Elgin and Middlesex are the counties which chiefly contribute, though Huron, Perth and Oxford also participate. The value of this year's crop is estimated at fully \$500,000. The Dominion Sugar Company, with factories at Berlin and Wallaceburg, will pay out for beets very nearly \$100,000. While these two factories take the major portion of the South-western Ontario beet crop, there are considerable beets exported to the factories at Mount Clemens and Croswell, Mich., which will add at least another \$100,000 to the amount paid for raw material this year. Hence, a total of fully \$500,000 will be paid out this year in the eight counties mentioned.

The photos show two typical scenes. Photograph No. 1 gives a glimpse of the cultivation of the beets. This work, in the latter part of summer, employs all classes of labor.

The plowing of the beets, the first step in the direction of harvesting, is shown in the second photograph. After being plowed out, the beets are topped, and then hauled to the nearest railway siding or scow landing, or else direct to the factory.

The tonnage this year is not quite as large as formerly, but the sugar per cent. in the beets is said to be equal to the best in the world. The average of the Dominion Sugar Co. at Berlin this year is 17.26 per cent., while at the Wallaceburg factory it is 16.40. This showing is significant. It means that the farming community is becoming educated along the lines of growing beets for sugar, rather than for tons, as formerly.

Kent Co., Ont. VICTOR LAURISTON.

### Bleached or Artificially-aged Flour.

The Detroit Free Press of a recent date published a report of the seizure by the United States Government of several hundred carloads of flour that had been artificially bleached, in defiance of its prohibition under the U. S. Food and Drugs Act. The conclusions, based upon elaborate experimentation with flour bleached by the nitrogen-compounds processes, are that the nitric effects greatly retard the digestion of the glutinous parts,

and that the flour is otherwise injurious to the health. Extracts from the nitric-bleached flours, fed to rabbits, quickly caused their death.

The belief is gaining currency that some of the Canadian millers are using the processes that have been prohibited across the line. The Globe, in referring to this subject, in connection with the discussion at the Ontario Millers' Convention, said that the Alsop method, which uses only electrified air, is much more sanitary than the use of peroxide of nitrogen. The inference might be drawn that this is the method used by Canadian millers. Dr. Wiley, Official Chemist of the United States Dept. of Agriculture, claims that the action of electricity on the air is to produce nitrous compounds which practically act upon the flour in the same way as the nitrogen drugs.

This is a matter that the Canadian authorities should investigate, and the public be fully informed upon.

### A Tour of the West—III.

Some of your readers may possibly criticise the wisdom of my (as some might say) glowing account of the West, but when they bear in mind that I have had an opportunity of seeing the country in the most favorable season and time, and with a crop such as the West never witnessed, how could I consistently have done otherwise?

While the abundant harvest means good times, for a season, at least, to the country generally, there are those who take advantage of such times, as the real-estate agents, and those holding large tracts, who resort to every available means to dispose of their lands at good prices, knowing a reaction is almost certain sooner or later.

It could hardly be expected, judging from the past, that the crops and prices will be as good all over this land another year, perhaps not for many years; the frost, hail or drouth may play havoc; due allowance should be made by intending settlers.

Many have come West and done well, some lost all they had, while others could have done as well or better by remaining in the East. One very important matter that seems to apply to this Western country everywhere is the fact of its being so healthful. I have met many who were delicate in the East, now the picture of health.

The great majority of people coming West have one object in view: to make money and get rich quick. That object would certainly be commendable, if their energies were not solely centralized therein, and the more important duty they owe their Creator too often neglected. The inconvenience of the scattered settlers in many instances, from the far-apart places of public worship, has a tendency to develop negligence in this respect. This is not the case, however, with all, as some of the most faithful devotees are to be found here.

In time, when the large ranches are divided up, and the settlers more numerous, will the social and educational advantages be improved. For the present, in many localities, the pioneers must expect to "rough it." The lessons of patience and perseverance many of these young men, perhaps alone hatching it for several years, learn prepares them the better for the battle of life. I would, however, warn people of rashly casting their lot in an out-of-the-way place, far removed from a market. Those who are willing to sacrifice many home comforts, and a determination to live exemplary lives, are the class that are especially needed to lay the foundation for the future greatness of this land. I believe, however, there are many opportunities yet in the East, everything considered, equally as good as in the West, by exercising due precaution, and adopting improved methods of farming, and denying themselves some



Cultivating Sugar Beets.

of the luxuries and pleasures they are obliged to do in the West.

Easterners, in some respects, are inclined to be just a little slow and conservative for the best interests of the country; and it would appear the very class so often going West to settle are the very ones so badly needed to be leaders and advocate needed reforms in the East.

FUTURE OUTLOOK FOR ONTARIO FRUIT.

I am thoroughly convinced, after making two tours of the Prairie Provinces, and seeing the great markets opening up for fruit, and the ever-increasing demand, that the fruit growers and shippers of Ontario, and especially the Niagara District, must, if they wish to supply this country with their products, send nothing but strictly first-class fruit. The idea so many seem to entertain, and apparently act thereon, that anything will do to send here, where no fruit can be grown, has already brought no small discredit to Ontario fruit, that will take a long time to remove. They seem to lose sight of the fact that the cost is often small, in proportion to the transportation charges. These people know what is good; they have the money, and are willing to pay the price, and if Ontario will not supply them with what they will have, they are forced to look to the West.

The Eastern fruit-grower has not yet realized the vast possibilities for production in the fertile valleys of British Columbia. The enormous quantities of apples, pears and plums, to say nothing of cherries and peaches, that will in a few years go on the market will surprise many. There are ranches there already covering thousands of acres in solid blocks, and preparations for many more. The area adapted for fruit, formerly thought so limited, is found to be very much larger.

Washington, Oregon and California are now largely supplying the trade here with fruit of which Ontario is able to produce much. The British Columbia people have started right, copying from their Western neighbors, in the cultivation, pruning, thinning, and, above all, the grading and packing.

It is not, I can assure you, a pleasant task for me to criticize Eastern methods; but one thing is evident, we must and it can be done; exercise great care in order to produce a better article, grade it carefully, and see that it goes in up-to-date packages, or we cannot expect to compete in this market.

I realize full well it is a hard proposition to get us Easterners to adopt changes, we are so fixed in our ideas, but the sooner we give this matter our serious consideration, and fall in line with Western requirements, the more will it be to our ultimate interest. W. B. RITTENHOUSE.

THE DAIRY.

A Test for Milk Dealers.

From a milk-dealer's standpoint, not only is it necessary to know the quality of milk with regard to its constituents, such as fat, total solids, etc., but also information with regard to its keeping quality.

Most dealers are now well aware that milk contains a greater or less number of bacteria, and that the greater the care exercised in cleanliness, etc., the longer will milk keep in a sweet condition. Heretofore it was impossible for the dealer to ascertain which milk was of good and which of bad keeping quality, unless he had complaints from his customers or had regular bacteriological examinations made of various samples of milk; hence, the dealer was badly in need of a simple test which would give him information as to the keeping quality of milk; in fact, a test as simple in operation as the Babcock test for ascertaining the percentage of fat in milk.

The test about to be described depends on the reducing power of the bacteria present in the milk. All bacteria in milk have more or less the power of reducing different stains or dye substances, that is, changing them from a colored substance to one which is milk white. In this test a sample of milk is colored with an aniline dye called methylene blue, and the sample is then incubated or placed at a suitable temperature until the color is completely lost, and the milk changes from blue to its natural white tint. The more bacteria there are in the milk, the faster does this decoloration or reduction take place.

This test was first proposed by Barthel, a Swedish investigator, and we have recently confirmed his work by making a number of tests and controlling these by careful bacteriological analyses.

The necessary apparatus used for this method is very simple, can be made by any tinsmith, and consists of the following parts:

- 1. A tin or galvanized iron water bath, which is heated with a small coal oil lamp.
2. A tin rack fitting in the bath, perforated with holes for holding a number of test tubes.
3. A number of test tubes about six inches long and 1 inch in diameter, made of strong glass.
4. One 10 cubic centimeter pipette, and 1 cubic

centimeter pipette, divided into halves of a cubic centimeter.

5. Rubber stoppers, or, if these cannot be obtained, good corks, fitting the test tubes.

The only chemical required is a saturated alcoholic solution of methylene blue, which may be obtained at most large drug stores. One cubic centimeter of this solution is diluted with 39 cubic centimeters of water, in order to obtain the colored solution which is added to the milk.

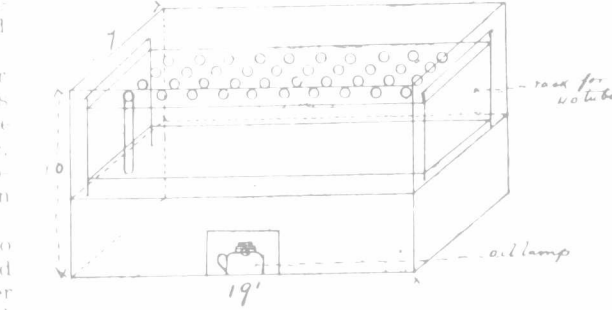
The method of carrying out the test is also quite simple, and the following steps should be taken, in the order named:

1. Place sufficient warm water in the bath so that it is at least even with the level of the milk in the tubes. The temperature of the water should be between 104 and 113 degrees Fahrenheit, and this temperature must be maintained throughout the test. This is easily accomplished by the use of the small oil lamp beneath the water-bath.

2. Place 10 cubic centimeter of milk from each sample to be tested into a clean test-tube, and mark the number of the sample on an attached label.

3. Place in each test tube one-half cubic centimeter of the dilute solution of methylene blue. Shake well, close the tube with a rubber stopper, place the tube in the rack, and as soon as all samples are ready, put the rack in the warm water in the bath. The first observation should be made at the end of a quarter of an hour, and then repeated at the end of each quarter, for the first hour; thereafter, a look every hour is sufficient. Note the sample which has turned white, and record the length of time it has taken. The test need not be continued longer than 7 to 10 hours. The results may be divided into the following three classes:

(1) Samples which are reduced or turned white after one-quarter to two hours. Such milk is either bad or very poor.



A lid, with a hole for a thermometer, covers the top.

(2) Samples which are reduced or turn white between two and seven hours. Milk of medium quality.

(3) Samples which are reduced or turn white after seven to ten hours. Milk which may be considered good to excellent in keeping quality.

In explanation of the above points, we may cite the results of a few of our experiments. Samples of fresh milk kept at a temperature of 10 to 50 degrees Fahrenheit for a day did not change their color under eight hours. Such milks contained from 9,000 to 10,000 bacteria per cubic centimeter. Milks containing one million bacteria per cubic centimeter changed color in about six hours, whilst samples which contained two million bacteria shortened the time of reduction to about two and one-half hours. Very bad samples of milk, which were reduced in 15 to 15 minutes contained from sixty-five to eighty million bacteria per cubic centimeter.

An important point for the milk-dealer to note is that not only has the absolute number of bacteria an influence on the time of reduction, but also the kind of bacteria present. A milk containing large numbers of lactic-acid bacteria, which are not injurious to health, reduces the color much more slowly than a sample of milk containing a lesser number of injurious gas-producing organisms.

This test, therefore, will give the information to the milk-dealer that his product is a first-class one, if it belongs to the third group (decolorized after 7 to 10 hours). Second-class milks, which should be used at once, would fall into the second group (decolorized between 2 and 7 hours); whilst poor milk would fall into the third group, and should not be used for human consumption (decolorized between 15 minutes to 2 hours).

It is evident that such a test, if generally employed by milk dealers, would prove of great value in the improvement of the milk trade. Not only would it be possible to locate bad milks more easily and quicker than can now be done, but effective steps might be taken to eliminate the undesirable purveyor of polluted milk at once. Thus, at a very small expense of money and labor, the dealers can prevent big losses to themselves, as well as safeguarding the interests of the milk-consuming community.

F. C. HARRISON & H. DASEN,
Macdonald College

GARDEN & ORCHARD.

Still More to Learn.

"When we began, in 1906," said Jas. E. Johnson, manager of the Norfolk Fruit-growers' Association, to a representative of "The Farmer's Advocate," lately, "we knew we had a good deal to learn, but now, after four years' experience, the possibilities from improved methods of culture and business seem greater than ever. I knew we had a good deal to learn then, but" (this with emphasis), "I can now see a great many more things to learn than I could then."

The Norfolk Association has advertised itself very effectively by the magnificent fruit display it made at the Fruit, Flower and Honey Show last month in Toronto. It was a credit to Canada, and the press has not been sparing in praise. The apple crop in Norfolk was light this year, but the Association had a successful season, nevertheless, having shipped 19,200 barrels, all of which were sent West. The membership has increased from 152 last year to 188 in 1909. Owing to unfavorable weather during the spraying period there were more wormy apples than usual, and, on account of this and other causes, they had more culls to the barrel this year than ever before. Otherwise, the quality was high.

Contrary to the practice usually recommended for co-operatives, the Norfolk Ass'n has no central packing station, though there is a warehouse where barrels are received and shipped. When the proper time arrives, gangs of men are sent around to the different orchards, and the apples are picked and packed at once. Hauling also begins as soon as there are enough barrels for a load, and cars in turn are also at once loaded and despatched. This year there were 52 picking and packing gangs employed, and, constantly travelling about among these while at work were five inspectors. The business of picking, packing and shipping was this season practically completed in three weeks.

The endeavor is to put up fruit so carefully, and of such a grade, that it will sell itself. No salesmen, other than the manager, are employed, and the aim is to sell only f. o. b. at Simcoe. Freight rates give no worry, as the other fellow has them to pay.

COMING CHANGES.

Mr. Johnson believes that in a few years the bulk of the apple shipments will be sent in boxes. Another change needed in their own work is the doubling of the number of inspectors. As he views it, it would be profitable to spend \$500 or \$600 more per year to secure sufficient inspection, rather than to have even ten barrels rejected because of not being up to grade. Reputation is hard to build up, and easy to lose.

ORCHARDS BEING PLANTED.

One result of the success of their co-operative work has been a wonderful increase in the planting of apple trees. Not only so, but there are many inquiries from outsiders, intending orchardists, regarding the price of land around Simcoe, and several sales of property for fruit-growing are already reported. So numerous, indeed, have been the number of possible buyers that the Co-operative Association intends to establish, as a branch of its business, a real-estate exchange, at which knowledge of any property for sale by the members, with location and price, might be learned. The outlook is for a decided rise in land values, and little wonder if such should be the result, when present prices range from \$10 to \$30 per acre.

A National Apple Show was held in Spokane, Wash., November 15th to 20th. Twenty-three States in the Union, and two Canadian Provinces, British Columbia and Nova Scotia, were represented in 2,160 entries in 20 classes, for premiums aggregating \$25,000, ranging from \$1,500 in the sweepstake for carloads, of which there were 13, to single plates of five apples taking prizes of \$5 for each variety. There were 10 limited entries, 39 free-for-all, 73 State and foreign country groups, 98 ten-box, 136 five-box, 278 single-box, 28 unnamed varieties, 15 pyramids of big apples, 11 largest apples, and 1,328 plates, aggregating more than 1,500,000 apples. The exposition, perhaps the most pretentious of its kind ever attempted in the world, is declared to have been a success in every way, attendance being well over the 100,000 mark, and including visitors from every State, Territory and Province on the continent; also, buyers from England, Germany and France. Canada was represented in many of the box and plate classes, and carried off its share of prizes. The growers of British Columbia sent five boxes of Northern Spy apples to His Majesty King Edward VII., and also joined with their cousins in consignments of fruit for President Taft and the Emperor of Japan. Howard Elliott, head of the Northern Pacific Railway Company, was president of the Show, the secretary-manager being Ren. H. Rice, of Spokane.

### N. S. Fruit-growers at Kentville.

The forty-sixth annual meeting of the Nova Scotia Fruit-growers' Association opened at Kentville on the afternoon of December 1st.

President F. M. Chipman, of Pictou, said, in part: Though the spring was somewhat backward, the weather during pollination of apples was all that could be desired. The dry weather of the summer was followed by an October which doubled the size of the apples, and experts placed our exportable crop at 700,000 barrels. The promise of high prices of the early part of the season is not being fulfilled. Gravensteins, especially, arrived in poor condition, and depressed the market. Apples are ripening very early, even the winter varieties, and speculators are afraid to handle them. One fact, as the result of this year's trade, is strongly impressed upon me, and that is that, unless there are better methods adopted both in handling and transportation, our foreign trade in Gravensteins is done forever. The insect pests that were most troublesome this year were the canker worm and the aphid. The banding of the trees with some sticky mixture is such a cheap and sure way of destroying the pest that it is to be hoped an effort will be made this year to completely exterminate them. Some of our most progressive growers have adopted the work of thinning their fruit in early summer, and doubtless we shall get some good reports from these. The much-desired experiment station has not yet materialized. It seems that in matter of such importance our Governments require a long time for consideration. Once a year a man is sent down to look over the situation and revive our flagging hopes.

A discussion on the necessity of a uniform-sized barrel for the Dominion lasted some time, the opinion still being strong that our barrel was the proper size.

#### CONTROL OF SOIL MOISTURE IN ORCHARDS.

Frank T. Shutt, Chemist, Central Experimental Farm, Ottawa, deplored the raising of hay or grain in an orchard, since the demands of these crops upon the moisture of the soil must interfere with the best development of the fruit or tree. The following conclusions were reached after several experiments at the Central Experimental Farm:

First.—The growth of rye, oats and buckwheat in the orchard has always resulted in the removal of larger amounts of moisture than is lost by the growth of legumes. The draft made by the cereals upon the moisture in the soil is greatest between May 1st and July 15th, when it is most required by the orchard trees. As high as ten inches of rain may be lost in this period over and above that lost from a cultivated soil.

Second.—More moisture may be conserved by sowing the legumes in drills and cultivating than sowing them broadcast.

Third.—A mulch of straw, etc., six inches thick was found very effective in controlling moisture.

Fourth.—It is very desirable to cultivate immediately after plowing, as undisturbed fallow land dries out very rapidly. Cultivation is the great conservator of soil moisture.

This paper was followed by a very spirited discussion, in which nearly all present took part.

#### THINNING FRUIT FOR PROFIT.

The evening session was opened by an address, "Thinning Fruit for Profit," by R. J. Messenger, who made the following points: Thinning saves:

First.—Time in packing. When this work is done in the early summer, time is not as pressing as in the busy picking season of October. Numerically speaking, thinning should take off from 50 to 75 per cent. of the apples on the tree. This can be done more quickly in the summer than autumn, since there is no time occupied in emptying baskets, opening barrels, etc., as one can pick with both hands, and simply drop them on the ground.

Second.—Saves time in packing. A man can pack twice the quantity of large, clean apples in a day as of small, wormy and scabby specimens.

Third.—Saves expense and freight. Amount of money returns being considered, the apples of a thinned tree can be placed on the market much more cheaply than those of trees not thinned. Since it takes three times as many No. 3's to fill a barrel as No. 1's, and since a No. 1 barrel is worth three times as much as a No. 3, you have to grow nine times as many No. 3's as No. 1's to get the same amount of money.

Fourth.—Saves in vitality of the tree. As the seeds or reproductive parts of the apple are the parts that sap the strength of the tree, it is reasonable to believe that the taking off of the apples which would only make No. 3's or culls, will not only allow more plant food to be diverted to the better development of those left on the trees, but will conserve more of the strength of the latter for the bearing of future crops.

Messrs. Eaton, F. E. Archibald, G. C. Miller, M. K. Ellis, F. H. Johnson, and Mrs. Sangster, all spoke of the benefit they had received from thinning, and determined to do more in the future. J. W. Chute gave, as a testimony for thinning, that one man's apples coming into his packing-house, packed about four barrels No. 1, one bar-

rel No. 2, and very few smaller. The apples were very much superior to any others that came in, and this man thinned his fruit.

Professor Cumming, of the Nova Scotia Agricultural College, spoke briefly of the work of the Department of Agriculture, in the course of his remarks expressing the hope that the fruit-growers would soon become unanimous in their choice of a location for the proposed experimental station for orchard work, and that such a choice would speedily be followed by its establishment. The College, in its hold upon the people and its popularity, had far exceeded his most sanguine hopes. This year, 125 men were to attend the Short Course from Prince Edward Island alone. He hoped to see the three Provinces united in the use and adoption of the College.

Robert Thompson, of St. Catharines, Ont., gave a very instructive address on co-operation and its benefits. They were forced to go into the matter because of the low prices they had been receiving for their fruit.

His experience showed that the men in these associations must be public-spirited; that the best man available should be selected for manager; that the numbers should not be limited to too few, as more made the association stronger, still it was not wise to make the numbers too unwieldy; that, as soon as a large quantity can be put up under a reliable brand, there is no difficulty in disposing of them at a good price; that they could also save in buying supplies, such as baskets, barrels, boxes, spraying materials, etc.; that greater concessions can be gotten from transportation companies than could be obtained by individuals.

Thursday Morning.—Report of treasurer showed a balance of \$483 in cash, and \$2,000 in Glace Bay Bonds.

Officers for the ensuing year were: President, E. E. Archibald; Vice-President, R. J. Messenger; Secretary, S. C. Parker.

After the elections, Prof. H. W. Smith, of Truro, took up the subject of plant diseases, recommending that this Association try to obtain legislation of such a kind that the importation of plant diseases would be checked. Most plant diseases were caused by fungi, and every means should be used to check the spread of disease by destroying the spores. The plowing under of the leaves, the burning at once of all diseased or dead wood caused by this fungous growth, the generous use of fungicides, were all important in keeping down disease. In the discussion which followed, the following points were brought out: That spraying with bluestone alone, 2 pounds to 40 gallons, was effective before buds opened; that excess of lime weakened the fungicidal properties of bluestone; that kerosene could be added to Bordeaux for apples; that flour would emulsify kerosene, 8 pounds to 1 gallon; that home-boiled lime-sulphur is more effective than the commercially-prepared article; that about 18 pounds sulphur to 20 pounds lime was a good proportion to use.

F. Fitch, Fruit Inspector, in a short address, urged on the meeting the necessity of a definite minimum size for grading apples. This provoked considerable discussion, but no action was taken.

The evening session was taken up mainly by addresses by visitors. L. D. Robinson read a paper on "Winter Sprays," strongly advocating lime-sulphur as a winter spray.

### P. E. I. Fruit-growers Meet.

The fourteenth annual meeting of the Fruit-growers' Association was held at Charlottetown, December 2nd and 3rd. Inspector Vroom was delayed, owing to the steamer not crossing Wednesday, but he arrived in time to judge the fruit Thursday evening.

The secretary's report showed the association to be in good financial standing, with a balance on hand of \$199.83. Prof. Theo. Ross reported that some of the Model Fruit Farms were in good condition, others were not doing so well. In regard to the latter, it was shown, during the discussion which followed, that the trouble was largely due to the condition of the trees when purchased from the nurseries.

The meeting adjourned at 3 p. m., and a meeting of the Co-operative Fruit Co. was held.

The secretary gave a detailed account of expenditure, such as cost of barrels, boxes, packing, etc. President A. E. Dewar stated that the Company had shipped 70 barrels of apples to Newfoundland, while a large quantity was sold locally in boxes and barrels. He reported that the large number of windfalls and culls found in apples sent to the Company made the fruit difficult to grade, and wasted much time for the packers, while bruises and scab caused many lots to be graded No. 2 that would otherwise have graded No. 1. He mentioned the necessity of barrels being packed tightly, as a slack pack always brought a lower price and injured the apples.

The meeting elected the following directors: A. E. Dewar, Charlottetown; John Vaneau, Lower Montague; Prof. Theo. Ross, Charlottetown; John Newson, Charlottetown; and Geo. J. J. McDonald, Kinkora. After some discussion, the question of shipping Ben Davis apples to St.

John, to be held in cold-storage for transatlantic shipment, was abandoned. The Halifax route did not meet with the approval of many, and it was decided that the Company would pack Ben Davis and other apples in March for shipment to England. Those wishing to avail themselves of this opportunity should correspond with the Board of Directors at once.

The Fruit-growers' meeting was called to order again at 8 p. m. Inspector Vroom gave a very instructive address on co-operation, and complimented the Fruit-growers on the splendid quality of the exhibit before him. He said that the quality displayed was the best he had ever seen on Prince Edward Island, and it gave ample proof that apple-growing could be made a profitable industry for the farmers here. He strongly advised having several centers for packing apples, as it would cost too much for truckage, etc., to have them all brought to Charlottetown. He then gave interesting information as to the method of packing and grading followed in the Annapolis Valley.

Prof. Ross said that Spies were imported here from Ontario at \$5 a barrel. This he considered unnecessary, as plenty of equally good apples (of other varieties) could be grown here to meet the demand of the home market.

Mr. Vroom said that apples brought a much better price in Prince Edward Island than in Nova Scotia, \$2 per barrel being the average price paid in the latter Province, while here \$3.50 is not unusual. In conclusion, he strongly advocated the continuation of the movement on the Island.

Hon. John Richards opened the general discussion on the fruit industry. He spoke of the good appearance of the exhibit, and said that P. E. I. apples compared very favorably with those of any other Province in the Dominion.

Friday morning, a demonstration on box packing of apples was given by Inspector Vroom. He and President Dewar then spoke at some length on the judging of apples at exhibitions.

The prize-list was discussed by J. A. Moore, Fred McIntyre, and J. A. Clark.

The following officers were elected: A. E. Dewar, president (re-elected); D. J. Stewart, vice-president; A. W. Sterns, auditor. The directors were re-elected, with the exception that Fred McIntyre succeeds the late John Robertson.

The scale of points for judging exhibition fruit, submitted by the Nova Scotia Fruit-growers' Association, was discussed, and unanimously adopted by the meeting.

The Question Box was then opened, and the following subjects discussed by those present: Mulch vs. cultivation; clover as a cover crop; russeting of apples by Bordeaux mixture; fall plowing of orchards; and the lime-sulphur wash.

In the discussion on varieties, led by A. E. Dewar, the majority of the members stated that they had found Baldwins, Kings and Spies did not prove satisfactory. The commercial varieties most in favor were Wealthy, Alexander, Wolfe River, Lukerman, and Stark, the first three being considered the best. Three other varieties, Baxter, Dudley and McMahon White, were mentioned, and highly recommended by some of the speakers.

Principal Le Lacheur, of the Macdonald School, was present with his class of boys, and at the close of the meeting Mr. Vroom gave them a short demonstration on judging and packing apples.

Resolutions were passed thanking the Federal and Provincial Governments, Inspector Vroom, and the Press for services rendered, placing on record its appreciation of the bulletins issued by the Fruit Division, Ottawa, and urging that they be enlarged and issued more frequently.

Resolutions were also passed, expressing regret at the loss sustained by the Association in the deaths of John Robertson and Senator Ferguson.

One of the most prominent exhibits at the National Apple Show, in Spokane, Wash., this year, was an exhibit from British Columbia, being a pyramid of apples exhibited in a hanging scale. There were 50 apples, with a total weight of 61 pounds—over a pound and a quarter each. The fruit was quite up to the mark in flavor, and was from the orchard of H. W. Collins, on the Covert Estate, at Grand Forks.

## POULTRY.

### Good Sport or Useful Sport.

Commenting upon the educative work accomplished through plucking and dressing contests, and other demonstrations, given by the Poultry-producers' Association of Eastern Canada, at the recent Quebec Provincial Poultry Show, held in Montreal, a Quebec French daily editorially says:

"Everyone is free to think as he wishes on the subject, but we are of opinion that if half the enthusiasm, energy and financial elements wasted on certain sports of a questionable usefulness were applied to creating and sustaining useful, educative and pleasant ones, such as have been carried on during nearly a whole week at the Poultry Exhibition, agriculture in the country, household

economy in cities, trade everywhere, welfare in town and country, would draw from them many advantages, of which poor as well as rich families would benefit, notwithstanding the fact that the general and actual turn of mind of the people would lose nothing by cultivating such sports."

And again: "The favor with which the public has appreciated those demonstrations of the Poultry-producers' Association ought to induce agricultural societies, and particularly poultry associations, to make use of the same methods of educating the people in such an attractive and pleasant manner."

## THE FARM BULLETIN.

### Annual Meeting of the Ontario Agricultural and Experimental Union.

The ex-students of the Agricultural College, at Guelph, make up a large percentage of the number that attend the meetings of the Experimental Union which are held there yearly. At the annual meeting this year, which was held December 6th, 7th and 8th, could be seen students who had gone through twenty years ago and more, though those who had more recently graduated were, of course, much the more numerous. It is a fine time for renewing old acquaintance, and is made use of to the full for that purpose, as well as for the more serious and practical purposes of the gathering. The O. A. C. ex-students' reunion at the home of President and Mrs. Creelman, on Monday evening, and the Experimental Union annual supper for ex-students, students, and officers of the College, are occasions of much pleasantness and good-feeling, and, in harmony with the teaching that has been given, good-feeding, as well. Among the old-boys of the College whom it was a pleasure to see was the Hon. Nelson Monteith, former Minister of Agriculture for Ontario.

The sessions of the Union, held in the fine lecture room of the Massey Hall building, were largely attended. The number was swelled considerably by the students at present attending the Agricultural College; but, besides these and the ex-students, there were grizzled farmers, whose knowledge of their business had been gained without books or teachers, and young fellows who are thinking of taking a College course, and took the opportunity to have a look at things.

The central feature of the programme at these Experimental Union meetings is, of course, the reports given by Prof. Zavitz of the work done under his direction by individual experimenters scattered throughout the Province. The number of these is continually increasing. During 1909 there were 4,856 who in this way aided in determining the most profitable varieties of farm crops for Ontario. Anyone who is willing to comply with the simple conditions and directions given may join the ranks and have seed supplied free by Professor Zavitz. The reports sent in by the thousands of experimenters are massed together by Prof. Zavitz and the averages given by him, first at the Experimental Union meetings, and afterwards in printed reports, with all details given, which may be had on application.

In this year's work, of the three varieties of oats sent out, Siberian headed the list, with a yield of 41 bushels per acre; Sensation second, and Daubeney third. The American Banner has been dropped from the list of those under test, as being too well known to need experimenting with. The old standard Mandscheuri barley still holds a high place, but Professor Zavitz is not a little proud of a variety developed from it by selection, which surpasses it in every test. This is known as O. A. C. No. 21. Its yield, in co-operative test, was 34 bushels, Mandscheuri 32, and Oderbrucker 29. Of two rowed barley, Hanna yielded 33 bushels, and Canadian 30. Hulless barley—Guy Mayle, 26 bushels per acre; Black, 23 bushels per acre.

Spring Wheat.—Wild Goose, 22 bushels; Red Life, 18 bushels.

Buckwheat.—Rye, 21 bushels; Silver Hull, 17 bushels.

Emmer, 15 bushels; Spelt, 29 bushels; Winter Wheat.—Imperial Amber, 21 bushels; Abundance, 23 bushels; Bulgarian, 21 bushels; Nigger, 21 bushels.

Rye.—Mammoth, 28 bushels; Common, 22; Washington, 19.

Peas.—New Canadian Beauty, 21 bushels; Early Britain, 20.

Beans.—White Wonder, 30 bushels; Marrowfat, 29; New Prize-winner, 28.

Corn.—Genesee Early, 45 bushels; Compton's Early, 43; King Philip, 43.

Mixtures.—Daubeney oats and Mandscheuri barley, 1,518 pounds per acre; Siberian oats, Two-rowed Canadian barley, and Wild Goose wheat, 1,090 pounds; Siberian oats and Two-rowed barley, 1,037 pounds.

Professor Gamble gave the results of co-operative experiments with fertilizers on muck soils. Nitrate of soda, muriate of potash and superphosphate were each applied to different plots, also in

combinations of two of these substances, and again of all three, which was called complete fertilizer. Barnyard manure, at the rate of 20 tons per acre, was also used in the test. The crops grown on test plots were oats, rape, millet and mangels. The complete fertilizer in every case produced largest crops. Barnyard manure, on the average, was a good second.

Prof. Zavitz followed with co-operative experiments with artificial fertilizers on ordinary soils. In some instances these did no good whatever, while in others the crop was doubled. Farmers themselves should be experimenters. No reliance can be placed on results obtained in other places. As in the fertilizer tests on peat soils, so it was on ordinary soils—single substances were always less effective than when used in combination with others. The quantities used per acre, when applied singly, were: Nitrate of soda, about 160 pounds; muriate of potash, the same; superphosphate, 320 pounds. When the complete fertilizer was used, consisting of one-third the quantity of each of these ingredients, decidedly greater yields in every case were secured. Cow manure, 20 tons per acre, and complete fertilizer, applied to potatoes, gave equal benefit, doubling the crop received from ground unfertilized.

President Creelman remarked that the Scotch delegation that visited Canada last year expressed wonder that Canadians were content with average crops. In Scotland they got extra yields; nothing else would satisfy them; but it was by using commercial fertilizer every year in addition to barnyard manure. Mr. Creelman asked if such practice would not pay in Canada. Professors Zavitz and Harcourt answered that, to get value from special fertilizers, there must be thorough cultivation, otherwise it would be money thrown away. In this country, while increased yields were obtained by their use on all crops, such increase was obtained at too great a cost in the case of cereals, though economically when applied to roots and potatoes.

There are far too many varieties of potatoes grown in Ontario. Seventy-one leading varieties were reported in 1909. In sending out varieties for test, it is not intended to increase the number of kinds in use, but to find out the best and stick to them.

In late varieties, the best were the old Empire State and the Rural New Yorker. Medium—Burrpee's Extra Early, not at all an early potato. Early—Early Eureka, first; Puritan, second.

Sweet Corn.—Golden Bantam, in quality away above all others.

Mangeis.—First in yield, Ferry's Yellow Leviathan, an intermediate.

Sugar Beets (for feeding).—Rennie's Tankard Cream, Bruce's Giant White Feeding.

Swede Turnips.—Steele-Briggs' "Good Luck," Carter's Invicta.

Carrots (area decreasing).—Steele-Briggs' Improved Short White, Bruce's Mammoth Intermediate Smooth White.

Corn for Grain.—Henderson's Eureka, Whitecap Dent, Sterling White Dent.

Sorghum (best).—Early Amber Sugar Cane.

In forage crops, Sutton's Early Drumhead cabbage was found to outyield rape, treated alike.

In regard to the cost of these co-operative experiments, it was very light, being 36 cents per member, or \$1,800 in all.

Professor Harcourt gave the history and synopsis of the "Act respecting Commercial Feed-stuffs." The need of it had been felt for a long time. Nearly all of the foodstuffs on the market were good, but value differed greatly, even in articles of the same name. For instance, all knew what oats, peas or barley were; but, of the feeding value of the by-products of starch factories and oatmeal mills, and such like, not much was certainly known, and these differed very much in different mills, and even from the same mill at different times.

Action was started by a memorial from the Experimental Union to the Government on the subject. Conferences of experts with Government officials followed year after year, but in May last an Act was assented to, and comes into force on the first of January, 1910. Under the Act, no feed, excepting whole grain, brewers' grains, mill chops, bran and shorts (unless mixed), oat bran and pea bran, may be sold without being registered and bearing registration number, and also percentage contents of protein, fat and fibre plainly stamped on bag or on tag attached, and name of manufacturer.

While bran, short and mill chop are exempted from the operations by the Act, yet, because these are sometimes mixed with inferior stuff, the following standard has been established, after the examination of many samples: Bran to be counted unadulterated must contain of protein, 14 per cent.; fat, 3 per cent.; and not more than 10 per cent. fibre. Shorts—Protein, 15 per cent.; fat, 4 per cent.; and not more than 8 per cent. fibre. Chop—Protein, 10 per cent.; fat, 2 per cent.; and not more than 10 per cent. fibre.

Prof. Harcourt hoped that feeders, dealers, and all interested, would make themselves familiar with the terms of the Act.

Hon. Nelson Monteith congratulated the Experimental Union on the speedy action they had secured, and drew attention to another matter on which legislation should be secured, the distribution of weeds seeds by means of elevator tailings and screenings.

A committee was appointed to draft a resolution, which later reported as follows: "That such legislation be adopted as will remedy the evil, and that the committee which pushed on the Feed Stuffs Act, with power to add to their number, be given charge of the matter."

Prof. E. J. Zavitz, reporting on Co-operative Forestry in Ontario, referred to the acquiring of 1,000 acres of land for reforestation purposes in Norfolk, and that 3,000 more acres are there which ought to be under similar treatment.

Forty thousand black locust and Scotch pine had been planted there, and 80 to 90 per cent. were living. In Durham County, also, planting on a large scale is going on. At St. George, results were disappointing at first, but more satisfactory since.

A. W. Campbell, Deputy Minister of Public Works, gave clear instructions regarding construction and maintenance of public roads. Proper drainage was the first essential. He would divide Ontario roads into three classes: First, leading roads, which should be macadamized; second, neighborhood roads, which would answer very well surfaced with gravel (gravel crushed and screened is much superior); third, concession lines, used only by a few farmers, may be merely earth roads, but these, if kept as they might be, are very satisfactory. The graded part of the first class should be 24 feet wide, of the second 20, and the third 18 feet. Grade should be of oval shape, and average one inch to the foot.

A report of School-children's Garden-plots was given by Prof. S. B. McCready. These are useful in that they aid in creating interest in nature-study work.

A report on the experimental growing of onion seed was given by A. McMeans. Not more than one per cent. of the seed used in Canada is grown here, 70 per cent. of it coming from California. So far, Simcoe County seems to lead in ability to grow seed profitably.

A number of five-minute addresses were given by ex-students who have appointments in various counties as Government representatives. These young men act for the Government in teaching classes in agriculture, holding stock-judging courses, tending local demonstration plots, organizing farmers' clubs, making drainage surveys, without cost, etc. The gospel of advanced agriculture is being preached by them, and encouraging reports were given. Eleven counties in all have representatives.

The last paper was given by C. C. James, Deputy Minister of Agriculture, and had the incomprehensible title of "Svalof." The name is that of a small village in Sweden, where most extraordinary results in grain improvement are being wrought by a Dr. Neilsen. After trying for advance by means of cross-breeding for years, with little result, that system was abandoned entirely, and that of selecting the most ideal single plant to be found in acres of grain, and from that, by re-selection each year, evolving a variety of superior quality of fixed type and uniformity was adopted. Some idea of the excellence of the work done in Svalof may be had from the statement of Mr. James, that nothing he saw in Europe impressed him so much as what he saw in this obscure Swedish village. During the two days he spent there, he and the others with him were steadily reduced to a condition of profound humility. Among other feats, Dr. Neilsen has succeeded in growing a hundred-acre field of wheat yielding 94 bushels per acre.

The following officers were elected at the meeting of the Ontario Agricultural and Experimental Union: President, G. S. Henry, Orillia, Ont.; Vice-President, W. L. Lennox, Newton Robinson, Ont.; Secretary, Prof. C. A. Zavitz, O. A. C., Guelph; Assistant Secretary, A. Buchanan, O. A. C., Guelph; Treasurer, Prof. H. L. Hutt, O. A. C., Guelph; Board of Control, G. C. Creelman, President O. A. C., re-elected, and James Ferguson, Dalmeny; A. McKenney, Essex; F. E. Webster, Creemore; H. M. Wee's, Glencoe; S. H. Gardner, Lion's Head.

### Progress in East Middlesex, Ont.

The beautiful, long fall has seen most of the work, including plowing, completed in better order than usual, which should tell favorably on next season's crops. The comparative rarity of auction sales this season speaks well for this part of Middlesex, as it means less shifting about and better financial conditions. An increased acreage of land was sown to fall wheat, and the deep-green fields look well. Most of the cheese factories are yet running, but in some cases the separators were started, and the cream sent to Port Huron, at good prices. There is also a call from Toronto for cream from this district. Butter prices have been on the rise, like everything else salable. Turkeys have been exported in large

numbers. Beef cattle are scarce, and stockers hard to get, but a number of the feeders have been fortunate in securing sufficient of a good type, in rather better condition than usual, to fill their stables. Cattle-fattening has made fertile farms and contributed its share to the prosperity of this excellent district. A great deal of drainage has been completed, and many new farm buildings erected and old ones improved.

### Creamery Meeting at Guelph.

The annual creamery meeting for Western Ontario was held in the lecture-room of the Dairy School, Guelph, Wednesday afternoon, Dec. 8th, 1909, and proved to be the best meeting that has been held for some years. There were between 75 and 100 creamerymen, and others interested, present. J. J. Parsons, President of the Western Dairyman's Association, occupied the chair. Prof. Dean welcomed most heartily the joint-stock and private owners of creameries, the creamery managers, buttermakers and their assistants; the butter merchants, whom he wished would keep the average price of butter to 30 cents per pound the year round; the cream-haulers, of whom he hoped some were present; the producers of cream, creamery instructors; and last, but not least, the butter consumers.

#### INSTRUCTION WORK.

Frank Hems, Chief Instructor, then gave a brief report of the instruction work during the

past season. There were 73 creameries, with 15,307 patrons sending cream, 1,362 more than in 1908; 3,280 tons of butter were made, or an increase of 10 tons. This did not include a large quantity of cream shipped to cities for family use and ice-cream, or cream sent to Port Huron to be made into butter. The average test of cream for the Southern creameries was 26 per cent., an increase of 2 per cent. over last year. The average for the Northern creameries was 23.2 per cent., or an increase of 3.2 per cent. Total average was 24.8 per cent., or 2.8 higher than last season. This is one of the improvements worked for, but coming very slow, as better results would be obtained if the average test was nearer 30 per cent. The oil test is gradually being superseded by the Babcock, there being only 10 of the former, and 63 using the latter; 67 are cream-gathered creameries, 5 cream-gathered and separator, and only one receiving all whole milk and separating it at the creamery; 49 creameries use the pipette for sampling the cream for testing, 9 using the scales weighing 18 grams of the cream, and 5 using pipettes and scales. There were 386 moisture tests made; the average moisture content was 11.66 per cent., last year 11.33 per cent.; 55 samples were over 16 per cent. These were obtained from 26 creameries. The highest average test was 15.9, and lowest 13.61. The instructors visited 416 patrons; 21 creameries collect the cream in individual cans, 22 in large cans, 9 in jacketed cans, 1 using small cans, and 17 gathering the cream in tanks. The average temperature

of the refrigerators was 43.7 per cent.; and over \$13,000 was spent in building new creameries, repairing old ones, and new equipment.

A popular feature of the meeting this year was the informal discussion of topics suggested on the printed sheets. Among the topics discussed were: Grading Cream; Collection of Cream; Making Babcock Tests; Improving the Cream Supply; Visiting Patrons, etc.; Improving the Quality of Butter, and other subjects. Some of the details brought out in the discussion will be published next week.

### Death of Mortimer Levering.

The stock-breeders throughout Canada, as well as the United States, who knew him, will deeply regret to learn of the death, which occurred on December 3rd, of Mortimer Levering, Secretary of the International Live-stock Association, and the American Shetland Pony Club. Mr. Levering was a man whom to know was to admire and to love, for his genial manner and gentle disposition. He was sagacious, fair-minded and courteous, a born gentleman, a man of splendid business ability, while possessed of a rich fund of wholesome humor which served to render him a charming story-teller and a most agreeable and entertaining companion. The news of his passing will cause genuine sorrow to a host of admiring friends, who will miss him in the gatherings of stockmen, in which he was a prominent personality.

## Ontario Winter Fair a Great Success.

### Enlarged Building Already Overcrowded.

Having broadened its premises this year by a two-story 260 x 113-foot addition, at an expenditure of fifty thousand dollars, contributed by the Ontario Department of Agriculture and the City of Guelph, the Ontario Provincial Winter Fair finds itself facing the necessity of another extension as great as or larger than the one just made. Growth of the several departments, together with the addition of the Ontario Horse-breeders' Exhibition, formerly held in Toronto during February, increased the demand for space out of proportion to the extension of floor area. When it is stated that the whole stabling accommodation was occupied, with sheep pens crowded as they never were before, and ninety or a hundred horses stabled outside the building, some idea of the situation is conveyed. When it is learned, further, that the seats about the horse and cattle ring, which are estimated to accommodate 1,000 people, and which timid spirits were afraid might never be filled, were actually crowded during every session that judging was in progress, with as many more spectators crowding about the ringside below, and hundreds of others turning away because they could not get close enough to see anything, another doubt is settled. Indeed, it is estimated that three thousand people would have occupied seats during part of the time, had the benches been available. And, notwithstanding the crowd here gathered, the passages and lecture-room were thronged with eager spectators and seekers after knowledge. In this connection, it is pleasing to note that, owing to a judicious arrangement of the programme, which spread the horse-judging out over four days, with cattle-judging interspersed, the horse department did not in any way seriously detract from, but rather added to the interest in the other departments of the Fair, drawing, as it did, a so much larger attendance. Exact figures of attendance are not available as we write, and, indeed, are impossible to obtain, owing to the large proportion of persons who enter repeatedly on their Farmer's Institute passes, in which, by the way, a regular traffic developed, hundreds being sold at the stations, in the city and on the trains. Some relative indication, however, is afforded by the cash gate receipts, which, on the first day this year amounted to \$290, as against \$180 on the corresponding day last year; and at the end of the second day they were about \$10 in excess of last year's total. In all, the total attendance can not have fallen far short of double last year's record. Doubtless, the novelty of the new building contributed to the phenomenal result, but, on the other hand, the Fair itself, especially with the horse department added, may be expected to draw increasingly as time goes on, so that, as noted above, the directors are hard up against the problem of again greatly enlarging the accommodation. Opinion seems settled that it would not be fair to expect Guelph to do anything further in that direction. It is rather a matter for the Provincial Government's attention. How to accomplish it, is a difficult problem. The new extension has been built out over the market square as far as it may go. On the west and north it is bounded by the street, and eastwardly extension was forbidden for fear of darkening windows of the City Hall, at the end of the old building. Perhaps it should be here explained that the present ground-floor of the extension contains three rows of 36 horse stalls each, a modern dairy cattle stable 61 x 51 feet, and a six-light flumed judging

arena 170 x 43 feet, next to the north wall of the old building. The seats around this arena are mainly on its north side, with a few at each end. The second story is thus dispensed with in the greater part of the new area, in order to allow for the seats. The two things urgently needed are more seating accommodation, and more space for exhibits. The latter might be accomplished by adding another story to the whole building, putting the poultry on the upper floor, as is done at Ottawa; sheep, pigs and seeds on the second floor, with, perhaps, some cattle as well, leaving more room on the ground floor for horses. The seating accommodation about the arena might then be increased by tearing down part of the north wall of the old building, and raising another gallery on the south side of the arena, extending it back into what is now the second floor. Another and perhaps a better plan, would be to take over the present city hall, flanking it by continuing the new extension to the eastern extremity, thus permitting a lengthening of the judging arena and seating gallery, with additional stables underneath. It is improbable that anything will be done for a year or two, but the problem must be considered, and early action taken, unless present expectations of growth are disappointed. Here is indeed a problem for the Provincial Minister of Agriculture, Mr. Duff; in fact, for the whole department and Government.

Guelphites would not be averse to a new city hall, and an equitable arrangement should be capable of being effected by which both fair and city would benefit.

### Beef Cattle.

The beef cattle classes were well filled, and, although the rings did not contain the long line-ups of first class butcher's types that may be seen at the International, top places were in most cases grazed by worthy examples of the breeders' and feeders' art. Particular mention is deserved by the sections limited to amateurs only, which brought out a number of animals that stood well up in the open competition. Geo. D. and J. A. McMillan, of Greenbank, were represented in the amateur department by two grade Shorthorn-sired by Gloster's Choice, a yearling steer and a yearling heifer, which won for them five firsts and one second, the latter in the open class for the Shorthorn special. Unable to attend themselves, their cattle were shown by their neighbor, Mr. Leask. All the beef cattle were capably judged by Robert Miller, of Stoneville, and Jas. Smith, of Rockland, Ont.

Shorthorns—Shorthorn steers, 2 years and under 3, were headed by a smooth, low set roan called Kronie, exhibited by Jos. Stone, of Saintfield. He handled well, and was pronounced by the judges one of the finest beef propositions that had come under their hands in years. Second was won by the well-known exhibitor, John Brown & Sons, of Galt, on a rather plainer, not quite so close to the ground type. Yearling steers uncovered the grand champion of the show in Dunrobin Villager, a big, thick, well-grown and nicely finished steer, weighing 1,800 pounds at 27 months of age. Although handling a triple soft, he was not so severely faulted on that score as he would

have been a year ago, when a very firm-handling animal, expected by the judges to kill out a model carcass, turned out hard, tallowy, and with an extremely small eye of beef. Mr. Miller explained, last week, in giving his decision and reasons for the judgment, that since this experience he would require two or three strong examples to lead him to place the same stress on firm handling as he had formerly done. To return to the class, Dunrobin Villager is a get of Nonpareil Eclipse, was bred by D. Gurn & Son, Beaverton, was first in his class here last year, and was shown this year by the veteran exhibitor, James Leask, of Greenbank. Second in the yearling Shorthorn class was even a more attractive-looking proposition, called Silver Nugget, by Gold Drop, not, however, so big, nor quit so well covered with flesh. In third place was a thick, useful-looking steer by Archer, exhibited by Jos. Stone. The calves were headed by a Scottish Hero get called Young Hero, shown by Joseph Walsh, of Mosborough. Beside him was W. A. Douglas' British Flag, by Imported Joy o' Morning. First of the two year old Shorthorn heifers was John Barr's Broadbooks Lily, and second was Kyle Bros' Fanny, by Defiance. A pair of yearling heifers were shown by A. F. & G. Auld, of Eden Mills, premier position going to one called Victor's Violet. An outstanding winner from the killer's standpoint, in the heifer-calf section, was John Currie's roan Beauty 2nd, next to her was Auld's Pleasant Valley Mysie, a get of Ben Lomond, out of Lancaster Princess, English Lady, in third place, is probably the best heifer from the breeder's standpoint and may develop into the best yearling, but was hardly so even in thickness of fleshing as the one above her. Awards:

Steer, 2 years and under 3—1, Jos. Stone, Saintfield; 2, John Brown & Sons, Galt; 3, John Barr, Blyth. Steer, 1 year and under 2—1, Jas. Leask; 2, A. Barber, Guelph; 3, Jos. Stone; 4, Jas. Leask; 5, Kyle Bros. Ayr. Steer under 1 year—1, John Walsh, Mosborough; 2, W. A. Douglas, Tuscarora; 3, James Leask; 4 and 5, Leslie Bros., Rockwood. Heifer, 2 years and under 3—1, John Barr; 2, Kyle Bros.; 3, John Brown & Sons; 4, L. Fried, Roseville. Heifer, 1 year and under 2—1 and 2, A. F. & G. Auld, Eden Mills. Heifer under 1 year—1, John Currie, Barrie Hill; 2, A. F. & G. Auld; 3, John M. Taylor, Guelph; 4 and 5, Frank Smith, Scotland.

Herefords and Aberdeen-Angus—These were not very numerous shown, although a number of excellent beef cattle were forward in this class. Herefords were exhibited by the F. W. Stone Stock Co., Guelph; and the polled cattle by Jas. Bowman, of Guelph; Thomas B. Broadfoot, of Fergus; Hugh McDougall, of Guelph; and John Lowe, of Flora. In a pair of two-year old steers or heifers, Bowman's Elm Park Rosebud 7th deserved the honor over the Stone entry, which was a heifer of medium quality. Among a quartette of yearling steers or heifers, Broadfoot went easy to the top with a splendid beef type called Elm Park Mayflower 10th, by John Park Ringleader 2nd, combining excellent type and finish. McDougall's second-prize heifer was of a similar type, but not quite so thick in the valuable cuts. His third-prize heifer, Bossy Bright, was not quite as good either in handling or in conformation as the other. A Stone entry was fourth. John Lowe



probably not so strong in point of numbers as in some former years. First on the call was bacon hogs, judged by R. J. Garbutt, Belleville; W. Jones, Zenda, and J. C. Nichol, Hubrey. A most marked improvement was noticeable in these classes over last year, all of them showing careful fitting, with just the proper amount of flesh, opinions being freely expressed that seldom had such an even, well-balanced lot been seen in a Canadian show-ring. The call for two pure-breds brought out a class of 24 pairs, 20 pairs of Yorkshires, and 4 of Tamworths. The task of culling and selection was an herculean one for the judges, whose final decision gave general satisfaction. The awards were as follows: 1 and 11, J. Featherston & Son, Streetsville; 2 and 6, J. E. Brethour, Burford; 3 and 4, R. F. Duck & Sons, Port Credit; 5 and 10, D. Douglas & Sons, Mitchell; 7, J. Duck, Port Credit; 8 and 9, C. Currie, Morriston. Tamworths got 5, 8, 9 and 10, all the other places going to Yorkshires.

Fifteen pairs of grades or crosses were out for comparison in this class, a splendid lot, well fitted. First went to D. Douglas & Sons; 2, R. F. Duck & Sons; 3, J. Featherston & Son; 4, A. E. Hulet, Norwich; 5, J. Rettie, Norwich; 6, J. Duck; 7, C. Currie.

Yorkshires were exhibited by J. Featherston & Son; Jas. Wilson & Sons, Fergus; H. S. McDiarmid, Fingal; J. E. Brethour, and R. F. Duck & Sons. The high-class character of the exhibit brought forth many expressions of praise from the throng of sight-seers. The judges were Prof. G. E. Day, O. A. C., Guelph, and A. C. Hallman, of Breslau. In the class for barrow 6 months and under 9, awards were: 1 and 2, R. F. Duck & Son; 3 and 5, J. Featherston & Son; 4, Jas. Wilson & Sons. Barrow under 6 months—1, J. E. Brethour; 2 and 3, Featherston; 4, Wilson; 5, Duck. Sow, 9 months and under 15—1, Duck; 2, Featherston; 3 and 4, Wilson. Sow, 6 months and under 9—1 and 2, Duck; 3 and 4, McDiarmid; 4 and 5, Wilson. Sow under 6 months—1 and 3, Featherston; 2, Brethour; 4, Wilson; 5, Duck. Three pigs of one litter, bred by exhibitor—1, Duck; 2, McDiarmid; 3 and 5, Featherston; 4, Wilson. Prizes for best barrow and best sow exhibited by an amateur, both went to M. A. McAllister, Ameronto.

Berkshires were exhibited by W. W. Brownridge, Ashgrove; E. Brien & Sons, Ridgetown; Adam Thompson, Shakespeare; Joshua Lawrence, Oxford Centre, and John Kelly, Shakespeare. While there were a number of exceedingly high-class animals exhibited, on the whole they were not up to some former years. Brownridge being particularly strong, got considerably the best of it. Thos. Teasdale, of Concord, the veteran Berkshire judge, handed out the awards in his usual efficient manner. Awards are: Barrow, 6 months and under 9—1, Brownridge; 2 and 3, Brien. Barrow under 6 months—1 and 3, Thompson; 2, Brien; 4, Brownridge. Sow, 9 months and under 15—1 and 2, Brownridge; 3 and 4, Kelly; 5, Thompson. Sow, 6 months and under 9—1 and 2, Brownridge; 3, Brien; 4, Lawrence. Sow under 6 months—1 and 3, Brownridge; 2, Brien; 4 and 5, Thompson. Three pigs of one litter, bred by exhibitor—1 and 4, Brownridge; 2, Kelly; 3, Thompson.

Tamworths made a fine showing, exhibited by D. Douglas & Sons, Mitchell, and C. Currie, Morriston, the judges being Prof. G. E. Day and A. C. Hallman. Barrow, 6 months and under 9—1,

2 and 3, Douglas; 4 and 5, Currie. Barrow under 6 months went the same. Sow, 9 months and under 15—1, 2 and 4, Douglas; 3 and 5, Currie. Sow, 6 months and under 9—1, 3 and 4, Douglas; 2, Currie. Sow under 6 months—1, 2 and 4, Douglas; 3 and 5, Currie. Litter—1 and 2, Douglas.

Chester Whites were exhibited by D. DeCourcy, Bornholm, and W. E. Wright, Glanworth, their exhibits being most creditable. The awards were placed by Mayor G. B. Hood, of Guelph. Barrow, 6 months and under 9—1 and 3, DeCourcy; 2, Wright. Barrow under 6 months—1 and 2, DeCourcy; 3, Wright. Sow, 9 months and under 15—1 and 3, DeCourcy; 2 and 4, Wright. Sow, 6 months and under 9—1 and 2, Wright; 3 and 4, DeCourcy. Sow under 6 months—1 and 3, DeCourcy; 2, Wright. Litter—1, Wright; 2, DeCourcy.

Grades or Crosses were judged by Major G. B. Hood, and made a most excellent showing. Barrow, 6 months and under 9—1 and 2, Currie; 3, Featherston; 4, Douglas; 5 and 6, Duck. Barrow under 6 months—1, Currie; 2, DeCourcy; 3, Douglas; 4, Duck. Sow, 6 months and under 9—1, Douglas; 2 and 3, Duck; 4 and 5, H. Koella, Glen Allen. Sow under 6 months—1, Currie; 2, Douglas; 3, DeCourcy; 4, Featherston; 5, Brownridge.

### Dressed Carcasses at the Winter Fair.

In this section of the fair, the feature that was specially noticeable was the outstanding and even merit of all the exhibits. In bacon hogs this was specially the case. In this class there was not a single carcass that was lacking in finish, or over-fat. Exhibitors have become educated so that they know exactly what is required, and if they have nothing that is up to the mark, they simply do not enter. For two dressed carcasses of bacon hogs, pure-breds, John Duck, Port Credit, won first; J. E. Brethour, Burford, second; third going to R. F. Duck & Sons, Port Credit. The other prizes in the classes went: 4th and 5th, Jos. Featherston & Son, Streetsville; 6th, R. F. Duck & Sons. The discrepancies which always occur between the opinions of the judges in the live, as compared with results in the dressed classes, were less marked than usual. Some decided differences there were, of course, but, on the other hand, there were surprising correspondencies. The first and sweepstakes alive only secured fourth dressed, and the first-prize dressed carcass got nothing alive. But the remainder of the class went as follows: Live 2nd, dressed 2nd; live 3rd, dressed 3rd; live 6th, dressed commended; live 7th, dressed 6th.

In the class for grades or crosses, the first prize and sweepstakes for best pair dressed carcasses, any class, was won by R. F. Duck & Sons, with a pair which were awarded second alive; second prize, James Rettie, Norwich, 5th alive; third, D. Douglas & Sons, Mitchell, first alive; fourth, Chas. Currie, Morriston, nothing alive.

The sweepstakes pair weighed, alive, 208 and 202 pounds, and dressed 159 and 155 pounds, respectively, a shrinkage of 23 per cent. The total weight of 64 dressed hogs was 9,776 pounds, an average of 152½ pounds each. The whole were sold to Mr. Hardy, of Guelph, at 11½ cents per pound.

For Cotswold dressed carcass, wether, 1 year and under 2, E. Brien & Son, Ridgetown, secured

first; Sam. Bailey, Uttoxeter, second; E. Brien & Sons, third; Geo. Allen, Burford, fourth; and Sam. Bailey, fifth.

Cotswold carcass, wether under 1 year—1, 2 and 4, E. Brien & Sons; 3, Geo. Allen, Burford. Lincoln dressed carcass, wether, 1 year and under 2—1, John G. Gosnell & Sons, Highgate; 2 and 3, L. Parkinson, Guelph. Lincoln wether under 1 year—1 and 3, Parkinson; 2, John G. Gosnell & Sons.

Leicester carcass, wether, 1 year and under 2, —1, Oliver Turnbull, Walton; 2, John Orr, Galt; 3, Ritchie Paterson, Jerseyville; 4, E. Brien & Sons. Leicester wether under 1 year—1, A. & W. Whitelaw, Guelph; 2, Adam Thomson, Shakespeare; 3, Oliver Turnbull.

Oxford wether carcass, 1 year and under 2—1, W. E. Wright, Glanworth; 2, A. Stevenson, Atwood; 3, J. W. Lee & Sons, Simcoe. Oxford wether under 1 year—1, Alex. Stewart, Living Springs; 2, J. W. Lee & Sons; 3, J. E. Cerswell, Bond Head.

Shropshire wether, 1 year and under 2—1 and 4, A. Rudell, Hespeler; 2, W. E. Wright; 3, J. Lloyd-Jones, Burford. Shropshire wether under 1 year—1, A. Rudell; 2, J. and D. J. Campbell, Woodville; 3, W. E. Wright; 4, J. W. Lee & Sons.

Southdown wether, 1 year and under 2—1, J. Lloyd-Jones; 2, R. McEwen, Byron; 3, 4 and 5, G. Baker, Simcoe. Southdown wether under 1 year—1, R. McEwen; 2, Geo. Baker; 3 and 4, R. McEwen.

Dorset Horn wether, 1 year and under 2—1 and 2, R. H. Harding, Thorndale; 3, W. E. Wright.

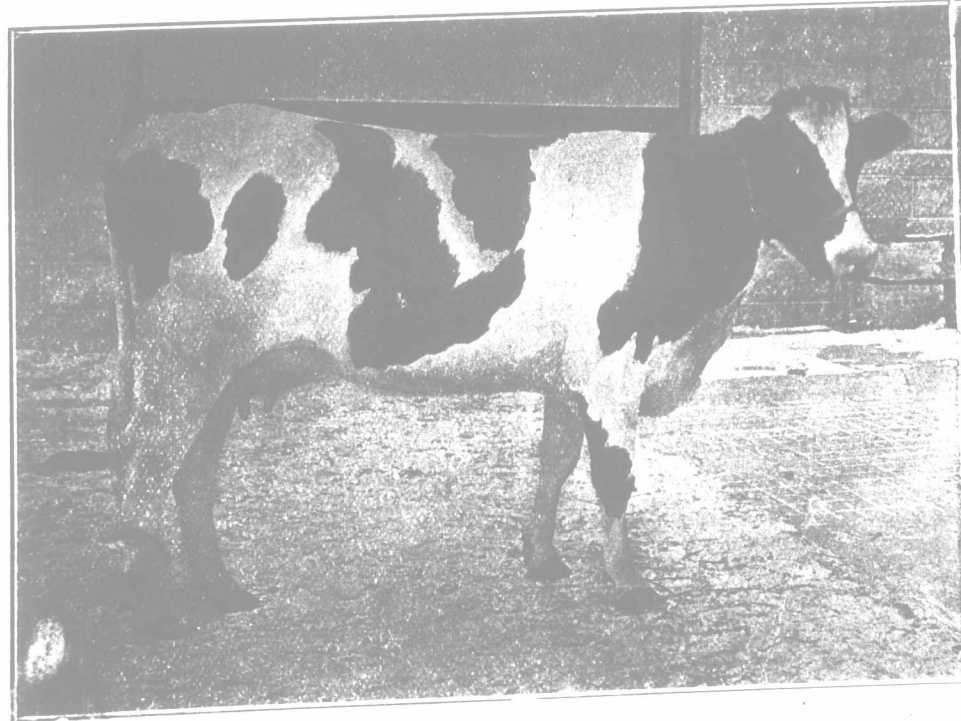
Hampshire or Suffolk wether, 1 year and under 2—1, Telfer Bros. Hampshire or Suffolk wether under 1 year—1, John Kelly, Shakespeare; 2, Telfer Bros.

Longwool Grade or Crossed wether, 1 year and under 2—1, Oliver Turnbull, Walton; 2 and 4, E. Brien & Sons; 3, A. & W. Whitelaw. Longwool grade or crossed wether under 1 year—1, E. Brien & Sons; 2, A. & W. Whitelaw; 3, L. Parkinson, Guelph.

Shortwool Grade or Crossed wether, 1 year and under 2—1, J. W. Lee & Sons; 2, W. D. Monkman, Bond Head; 3, Geo. Baker, Simcoe. Shortwool grade or crossed wether under one year—1, J. W. Lee & Sons; 2, John Kelly, Shakespeare; 3, J. & D. J. Campbell. The price realized for the carcasses was from 6½ to 11, 12 and 13 cents per pound.

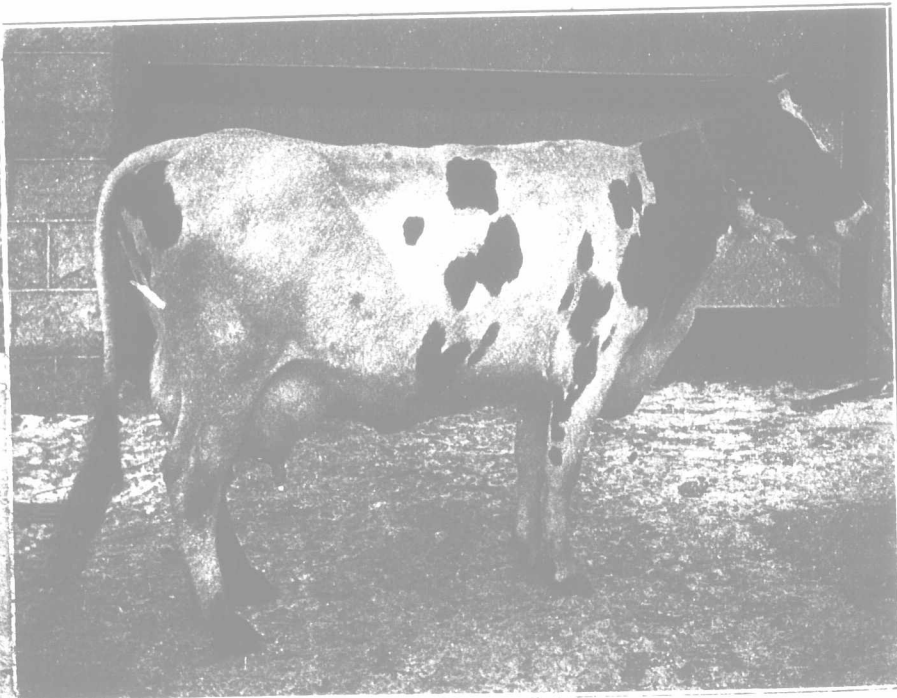
In dressed carcasses of pure-bred cattle, James Bowman, of Guelph, won first in the class and sweepstakes of the show with a great little Aberdeen-Angus heifer, just a month under three years old, Rosebud 7th. Her live weight was 1,350 pounds, and she dressed 864 pounds, exactly 64 per cent. The second place was taken by a Shorthorn owned by Kyle Bros., Ayr, weighing 1,100 pounds and dressing almost 63 per cent. Third went to a Galloway of Lt.-Col. D. McCrae's, which weighed 1,310 pounds, and dressed barely 60 per cent. Fourth prize went to a Hereford from the F. W. Stone Stock Co., of Guelph.

In grades or crosses, A. Barber, Guelph, took first; John Lowe, Elora, second; and E. Brien & Sons, Ridgetown, third. In this class, the first-prize animal excelled even the sweepstakes heifer in percentage of dressed meat, the live weight being 1,375 pounds, dressed weight 896 pounds, and percentage a little over 65.



Queen Butter Baron 7652.

Holstein heifer. First in class under 36 months, in 3-day dairy test, Ontario Winter Fair, 1909. Record: pounds milk 159.96; per cent. fat 4.3; pounds fat 6.878; pounds solids not fat 14.972. Owner, M. H. Haley, Springfield, Ont.



Aggie De Kol 4127.

Holstein cow. First in mature class and champion in three-day dairy test, Ontario Winter Fair, Guelph, 1909. Record: milk 216.20 lbs.; per cent. fat 4.3; pounds fat 9.296; pounds solids not fat 18.549. Owner, M. L. Haley, Springfield, Ont.



The carcasses, comprising 80 hogs, 15 heaves, and over 130 of mutton, were auctioned off by R. J. Kerr, of Mimoso, the whole being disposed of in two and a half hours.

**Phenomenal Results in Dairy Test.**

The dairy test of 1909 is likely to be remembered a while. Housed in the bright, new stable, with all modern fittings, and with a very effective system of ventilation, were many cows that would grace a world's fair, and their performance in the three-day test was simply wonderful, considering that it was made in December, and away from home. Not only were the milk yields phenomenally large, but the butter-fat test was also surprisingly high. This latter fact is attributed by exhibitors to the excellent ventilation, it having been the experience that when the weather was muggy and the air bad the test had gone down. Competition this year was practically confined to Holsteins and Ayrshires, with two grades and one Shorthorn, the latter failing to qualify for a prize. Ayrshires numbered eleven, and Holsteins

twenty-two. While both breeds acquitted themselves with credit, McKee's first-prize Ayrshire cow making 228.16 points, it was unquestionably a Holstein year, the Black and Whites simply excelling themselves both in regard to quantity of milk and butter-fat production. One cow gave 243.31 pounds of milk in three days, or an average of over 81 pounds a day. Her test, however, was not so high as some others, being only 3.1 per cent., so that she achieved only fourth position in the mature Holstein class. Clemons' cow, Evergreen March, champion two years ago, yielded 216.26 pounds, testing 3.8 per cent, but even this entitled her only to third. First and second in the mature class were two cows owned and entered by M. L. Haley, a comparatively new breeder and exhibitor, who, however, won first and championship in 1908 with the cow that secured the honor this year, Aggie De Kol, yielding 216.20 pounds, testing 4.3 per cent., making a total score of 288.81 points. His second cow, Janthe Jewel Mechthilde 3rd, produced 207.89 pounds of 3.9-per cent. milk, scoring 261.79 points. Jas. Rettie won in three-year-old Holsteins with

Elloree, which yielded 192.69 pounds of 3.7-per cent. milk, and scored 230.47 points. In heifers under 36 months, M. H. Haley repeated his brother's triumph in the mature class, winning first and second on Queen Butter Baron, with 217.76 points, and Mercena Artillissa, with 181.79 points. It is gratifying to find men like the Haley Brothers, who have made a success with grades, branching out and doing so well in pure-breds. It is men like these who get into pure-breds, keeping them on a commercial basis, that do good to the pure-bred-stock business. Incidentally, it is interesting to note that Oxford County, and Norwich, in particular, made a more than extraordinary record both in Holsteins and Ayrshires, no fewer than fourteen cows being entered by exhibitors who write from the latter post office. A number of other competitors, including the Haleys, also come from that banner dairy county. The test was again conducted this year on a basis of 25 points for each pound of fat, 3 for each pound solids not fat, and 1 for each ten days' milking after the first thirty days; limit, 10 points.

**PRIZEWINNERS IN THE DAIRY TEST AT GUELPH.**

Name of Animal and Exhibitor.	Lbs. Milk.	% Fat.	Lbs. Fat.	Lbs. Solids not Fat.	Points for day's Milking.	Points for Fat.	Points for Solids not Fat.	Total Points.
<b>AYRSHIRES.</b>								
Class 68, Sec. 1, Ayrshire Cow, 48 months and over:								
Victoria 13788; H. & J. McKee, Norwich	166.81	4.3	7.172	16.44		179.3	49.32	228.16
White Floss of Brookside 20139; H. & J. McKee	161.99	4.4	7.127	15.92	1.1	178.17	47.76	227.03
Jubilee of Hickory Hill 23180; N. Dymont, Clapison	150.81	4.2	6.334	14.77		158.35	43.43	201.78
Fairy of Hickory Hill 24579; N. Dymont	137.44	4.6	6.322	12.78		158.65	38.634	196.68
Susie of Hickory Hill 22336; N. Dymont	153.11	3.9	5.971	14.132		149.27	42.39	191.66
Class 68, Sec. 2, Cow, 36 months and under 48:								
Queen Jessie of Spring Hill, H. & J. McKee	133.00	4.6	6.188	13.27		152.95	39.38	192.33
Star Sarah 21511; H. & J. McKee	137.44	4.1	5.635	13.427		140.87	40.28	181.15
Snowdrop of Hickory Hill; N. Dymont	89.94	3.5	3.147	8.22	8.6	78.67	24.66	111.93
Class 68, Sec. 3, Ayrshire Heifer under 36 months:								
Beauty of Hickory Hill 27663; N. Dymont	121.75	4.2	5.113	11.614		127.82	38.84	162.66
Scottie's Victoria 23675; H. & J. McKee	94.75	4.1	3.884	9.257	8.3	97.10	27.77	133.17
Scottie's Nancy 24265; H. & J. McKee	92.77	4.2	3.889	9.082	1.7	97.4	27.24	126.34
<b>HOLSTEINS.</b>								
Class 69, Sec. 1, Cow, 48 months and over:								
Aggie De Kol 4127; M. L. Haley, Springfield	216.20	4.3	9.296	18.49	0.8	232.40	55.64	288.84
Janthe Jewel Mechthilde 3rd; M. L. Haley	207.89	3.9	8.107	19.707		202.67	59.12	261.79
Evergreen March; G. W. Clemons, St. George	210.26	3.8	7.989	17.67	0.9	199.72	52.10	252.72
Lina Netherland Abbe'sork; H. Bollert, Cassel	243.31	3.1	7.542	20.73		188.55	62.91	251.46
Pudmina Hartog De Kol; H. Bollert	190.82	3.5	6.678	17.7	1.3	166.95	51.21	219.45
Class 69, Sec. 2, Holstein Cow, 36 months and under 48:								
Elloree 6959; Jas. Rettie, Norwich	192.69	3.7	7.129	17.19		178.22	52.25	230.47
Utica Alice 6452; M. McDowell, Norwich	158.32	3.8	6.016	15.6		150.4	47.28	197.68
Olive Schuiling Posch 6960; James Rettie	148.19	3.9	5.779	14.77	8.8	144.47	42.23	195.50
Lady Colanthus De Kol 6451; M. McDowell	146.96	3.9	5.731	14.37		143.27	43.11	186.38
Mysie 6551; A. E. Hulet, Norwich	119.18	3.5	5.221	13.64	14.0	130.52	40.92	185.44
Class 69, Sec. 3, Holstein Heifer, under 36 months:								
Queen Butter Baron 7652; M. H. Haley, Springfield	159.96	4.3	6.878	14.72	0.9	171.95	44.91	217.76
Mercena Artillissa 9987; M. H. Haley	126.39	4.6	5.813	12.158		145.32	36.474	181.79
Pietertje Poem 2nd 7927; James Rettie	158.12	3.2	5.059	14.0		126.47	42.00	168.47
Mercena Jewel 9081; James Rettie	161.68	3.1	5.012	13.88	0.1	125.3	41.64	167.04
Sarah De Kol Veeman 10219; P. D. Ede, Oxford Centre	151.07	3.2	4.930	13.311	1.7	123.25	39.933	164.88
Class 72, Sec. 2, Grade Cow, 36 months and under 48:								
Ethel; M. H. Haley	156.58	3.9	6.106	13.66		152.65	40.98	193.63
Class 72, Sec. 3, Grade Heifer under 36 mos.:								
Duchess; H. J. Benfield, Woodstock	153.45	3.5	5.370	14.424		134.25	43.27	177.52
Peter G.; M. McDowell, Norwich	88.65	4.2	3.723	8.457		93.075	25.971	118.44

**Poultry Exhibit Very Large.**

Despite the fact that last year the poultry exhibit was considered by all present to be an exceptional one, yet the list this year exceeds that of last year by about 500 entries, there being 1,763 entries this year. It is also the general opinion of the judges that quality stood on a par with numbers this year. It was the greatest poultry show ever seen in Canada, and, in the opinion of noted men, it surpassed the great shows of New York and Boston.

The enlarging of the Winter Fair Building made larger entries possible, and the birds were shown off to much better advantage, as there was room enough to accommodate them all. In former years the poultry exhibit was cramped into one room or hall, and it was more like work than pleasure to see the birds, owing to the enormous crowds and confined space. This year, everyone had a good opportunity not only to see the birds, but to study the different types, before being carried on by the crowd.

In an interview, Prof. Graham, of the Ontario Agricultural College, expressed himself in the following way: "In my opinion, it is the best poultry show that has ever been held at Guelph, and I am inclined to believe that it is the best I have ever seen. I base this statement on quality. There is not a poor bird in the whole exhibit. You cannot go along the line and pick out the winners, saying, this is first, second and third, respectively.

"There are classes here that surpass those shown in New York and Boston, and vice versa. But,

for an all-round poultry show, this surpasses both, and this is the first time I have been able to come to this decision.

"The keenest competition was in White Leghorns. In the Leghorn classes, the Wyandottes, Barred Rocks, Buff Orpingtons and Rhode Island Reds, no stronger competition could be seen anywhere.

"Now go over the Orientals, Game Bantams, African Bantams, and others classes. There were some of the best birds that could be imported from England, and in 50 per cent. of cases they failed to win. How is this for quality? When one man pays \$50 for an improved cockerel in order to show him at this show, and then fails to win third prize, the home-bred stuff cannot be very bad."

Wm. O'Neil, London, who is the ex-president of the Poultry Association, one of the largest breeders in Orientals, who in three shows of the World's Fair, namely, Chicago, Pan American, and St. Louis, won more prize-money than any other breeder, winning over \$1,300 at the last-named show, expressed himself as follows:

"It is the best show I have ever seen, and I have travelled all over North America. I have been coming to Guelph for 11 years, and this is by far the best I have seen, not only here, but in New York and Boston. You can take the whole class, or each variety, and it's all 'quality.' The quality in feathering was not the best that can be attained, but this is due to the early part of the season. Most prominent are the White Wyandottes, especially in the pullet and cockerel classes, there being 56 entries in each section. These

are the largest classes, with the Barred Rock coming next. There is a Barred Rock cockerel here that the judge, H. P. Schwab, Irondequoit, N. Y., had never seen his equal at either Boston or New York."

Wyandottes.—This was an exceptionally strong class, and contained 515 entries, the two largest sections being the cockerel and pullet sections, each containing 56 entries. From the quantity and quality present, there is no doubt that this class, and especially the White Wyandottes, are holding their own against the other breeds. Among the noted breeders in this class that exhibited birds were: John McPherson, London; Sheih & Becker, West Lorne; J. H. McGill, Port Hope; Jos. Russell, Toronto; W. Dawson, London East; Wm. Archer, Paisley; A. G. Auld, Toronto; J. A. Phaneuf, Montreal.

Leghorns.—There were 409 entries in this class, and the keenest competition was encountered in each section, especially in the White Leghorns. Some of the most noted breeders present were: I. K. Martin, Galt; H. E. Thorne, London; Jas. L. McCormick, Brantford; Wm. Ferguson, Brantford; E. Waks, Milton.

Plymouth Rocks.—The number composing this class was 277 entries, and there was not a poor bird in the class. Not only was shape and quality almost perfect, but the condition of feathering in this class was decidedly superior to last year. Some of the breeders present were: John Pringle, London; I. K. Mallard, Dundas; John Bedford, Toronto; Thos. Andrew, Pickering; Wm. Dale, Brampton; Hugh A. Rose, Welland—in Barred Rocks, in Buff Rocks, were: John Pawden,

Ridgetown; J. M. Campbell, Crosshill; G. D. McLean, Ridgetown; F. W. Krouse, Guelph.

Orpingtons.—In this variety there were 240 entries, the Buff Orpington forming the largest section. They were of exceptional quality and go to show that this variety is still doing well in the Province. Amongst the breeders exhibiting were: J. W. Clarke, Cainsville; A. W. E. Hellyer, Ottawa; H. R. Hoffman, Ridgetown; Thompson Bros., Port Dover; Hugh W. Scott, Caledonia.

Rhode Island Reds.—There was a considerable increase in numbers in this breed, and from this and the quality, it proves that this breed is becoming more popular every year. Competition was as keen in this class as in any, and great interest was taken, whether due to the nickname of "Farm Fowl," or not, it is hard to say. Among the winners were: Hughes & Taylor, London; T. A. Faulds, London; Brown & Reid, Guelph; A. P. Hillhouse, Bondville; Jas. L. Vance, Ingersoll; Wm. Pearson, Guelph; C. E. T. Woodley & Sons, Knowlton.

Turkeys, Geese and Ducks.—There was an increase in the entries of turkeys to the amount of ten over last year, there being 85 entries. Considerable difficulty was experienced in placing the awards. However, the judge's final decisions gave universal satisfaction.

This year, the geese were not quite up to the standard in quality, although numbers were exceptional, there being 137 entries, as compared with only 101 of last year.

A falling off of seventeen entries from that of last year was noticed in the ducks, there being only 125 entries this year. Quality was very good, and competition keen.

Bantams and Pigeons.—The Bantam and Pigeon classes formed the chief attraction for the ladies and children, and were not lacking in numbers, or quality. There were 786 entries in the former, and 569 entries in the latter. The Game Bantams were represented by the largest class ever shown, consisting of 281 entries, and included some imported birds. The Oriental Bantams comprised a very large class, and were well displayed.

In the pigeon department, practically every variety of pigeon known was exhibited, from the small Parlor Tumbler, to the large Pouter.

Dressed Poultry.—There was no trouble as regards lack of space in this department this year. Although the exhibit was larger and of a better quality than last year, yet there was ample room for the exhibit. When one saw the display, there was no doubt whatever that some people in Ontario knew how to feed and dress birds for the show, the only drawback being that the tables were a little too high, and it was the general opinion that if they were lowered a foot, a better view could be obtained by people of smaller stature.

The prize for best-dressed bird went to Plymouth Rocks. Last year, Dorkings carried off the honors, with White Wyandottes second, and Plymouth Rocks third.

Amongst the chickens, J. E. Moore, Armstrong Mills, carried off practically all the prizes; while in turkeys, ducks and geese, H. J. Woodrow & Sons, of Beaconsfield, were the most successful ones.

### The Horse Department.

The show of horses at the Winter Fair was the best, both in point of quality and number of horses on exhibition, that has ever been held by the Ontario Horse Breeders' Association. Notwithstanding the erection of a fine large building for the purpose of holding a horse show, the seating capacity was entirely inadequate for those who wished to witness the exhibition. At present, it is somewhat hard to see how this is to be remedied, but doubtless the most feasible scheme will develop. All classes of horses were well represented, but more especially the Clydesdales and the Hackneys.

Clydesdales.—It is doubtful if such a number of good horses of the breed were ever brought together on the continent. Most of the large importers and breeders of this favorite breed of draft horses had their best on exhibition, and honors were somewhat equally distributed. The judging in this, as well as in other classes, may be said to have given general satisfaction. Of course, where so many high-class animals come in competition, there will be cases in which the opinions of good horsemen will differ, but, on the whole, a competent and honest man could find little fault with the awards. The judges were: Job White, Ashburn; Jas. Torrance, Markham; Andrew Russell, Carrville.

Fifteen high-class aged stallions faced the judges. Of this lot, there was not one inferior animal, and the selection of the winners was no easy task. First place, and afterwards the championship, was won by Cowden's Prince (imp.), exhibited by Graham-Renfrew Co., Bedford Park, Ont. This is a very classy, large bay horse, with stripe in face and four white legs, by Lothian Again, out of Maggie of Lee. He is a horse of great size and quality, with the desirable obliquity of shoulder and pastern, and quality of bone and feathering, and has exceptional action, going

strongly in front and close behind, with good height of action and length of stride. Second

place was won by T. H. Hassard, of Markham, Ont., with Kilnhill Victor (imp.), by Pride 3rd of Kilnhill, dam Jean of Goukmuir, a flash brown horse of exceptional size, quality and action. Third place went to Hassard's Carcellus, by Marcellus, dam Maid of Honor; fourth to Milton Chief, by Royal Chief, dam Bell of Milton, owned by John Vance, of Tavistock, Ont.; fifth to Black Ivory, by Everlasting, owned by Smith & Richardson, Columbus, Ont.; and sixth to Pride of Newmills, by Cassabianca. Three-year-olds numbered sixteen entries, most of which were present. They were a high-class lot, any of them good enough for any show-ring. The red ribbon was won by Graham-Renfrew Co., with Proud Chieftain, a brown colt, imported by the exhibitors, and sired by Cairn-brogie Chieftain, dam Airies Poppy. This is a large colt, of excellent quality, with the proper shoulder, pasterns, bone, feathering and action.

The blue ribbon went to John A. Boag & Son's imp. Homestake, a bay, sired by Silver Cup, out of Helene. This colt is just about all the Scotchman looks for. He has size, substance and quality to a marked degree, exceptional pasterns and true flash action. Some thought he would be placed first, but the judges did not see it that way, and it is a case where the opinions of horsemen might easily differ. If these two come in competition when in the aged class, different judges will probably place them differently. Third place was won by Wm. Woodley & Sons, Dundas, Ont., with Prince Ascot, by Ascot, dam Meg of Lockwood; fourth by Graham-Renfrew Co.'s Top Spot, sire Baron Hood, out of Lady Stormont, owned by the Graham-Renfrew Co.; fifth to Dunure Acknowledgment, a Baron o' Buchlyvie get, owned by Smith & Richardson; sixth to Royal Godelphin, owned by T. H. Hassard; seventh to General Favorite, owned by Hodgkinson & Tisdale, of Beaverton, Ont.; and eighth to Captain Vaisey, owned by Smith & Richardson. Most of the seventeen two-year-old stallions catalogued were present. They were a very high-class lot. The first three were exceptionally meritorious, all being of good size, with plenty of style, quality and action. It was hard to place them. First went to the reserve champion, Commodore, a large bay colt, of exceptional finish and quality, with superb feet and pasterns and true flash action, sired by Baron o' Buchlyvie, and exhibited by Smith & Richardson. Second place was won by Honest Labor, a bay with stripe and white feet, by Hiawatha, owned by John A. Boag & Son; and third money by another Baron o' Buchlyvie get, Dunure Goldlink, owned by Smith & Richardson.

In fourth place was Smith & Richardson's Dunure Shapely, followed in succession by Wamphrey Lad, owned by the Graham-Renfrew Co.; Dunure Soutar, another of Smith & Richardson's; Royal Mulben, owned by Dalgety Bros., London, Ont.; Prince of Merton and Baron Onslow, the latter two from the Columbus stables. Five of the seven yearling stallions catalogued appeared in the ring. As in the other classes, the individuals were of high character. Jno. A. Boag & Son won the red ribbon with Angelo, a typical bay by Benedict, with face and hind legs white. The blue went to Smith & Richardson's Baron Crawford, by Blacon Sensation, third place to Attractive Tom, by Attractive Prince, dam the well-known champion, Flossend Princess, King's Ediet, by Benedict, also Smith & Richardson's, won fourth, leaving fifth place to Royal Gold, by Gold Link, dam Maggie Ross, owned by John Brown & Son, Galt, Ont. Among the nine high-class Clydesdale mares, 3 years or over, Smith & Richardson won the red with the flash-moving, typical, quality, Toronto-winning filly, Queen Minnie, later awarded the female championship. Her conformation, action and quality leave scarcely anything to be desired. The blue went to Sellie of Sweet Hillock, owned by the Dominion Transport Company, Toronto, Ont. Third place went to Baroness of Viewfield, another good one belonging to the Dominion Trans. Co.; fourth to Fanny Clark, owned by Allan Fried, of Roseville, Ont.; fifth to Kate of Hartlow, owned by John D. Moore, Queensville, Ont.; sixth to Bloom of Pitberg, owned by Paterson Bros., East Toronto; seventh to G. A. Bell & Son, of Lowville, Ont., on Aunt Polly. Two-year-old mares were an exceptionally good class, with 15 entries. The Graham-Renfrew Co. won the red, and subsequently the reserve for sweepstakes, with Bedford Rose, by Baron Beauden, dam Maggie 3rd of Drumlanrig. This is a beautiful brown filly, with stripe, and off fore and hind legs white. She has exceptional style and quality, while her action is almost perfect. Newbigging Beauty, by Atahualpa Beauty, dam Newbigging Neli, a very sweet filly, owned by W. F. Batty, of Brooklin, Ont., won the blue. John A. Boag & Son filled third with Bessie McIntyre. In fourth position stood Chaymore's Rose, owned by T. H. Hassard. Fifth was Graham-Renfrew Co.'s Northern Queen, sixth, Electric Bell, owned by Graham-Renfrew Co.; seventh, Maraguita, owned by R. M. Holtby, Manchester, Ont.; Jno. A. Boag & Son won first in the quartette of yearling fillies with Ruby Rose, by Ruby Pride, dam Olive, a very fine black, and second with an almost equally

good one, Edwardina. Third went to Alex. F. McNiven, St. Thomas, Ont., for Rosie Kerr, while the fourth was won by the same exhibitor's Amelia.

Canadian-bred Clydesdales and Shires.—The exhibits in this class demonstrated that good horses can be bred and raised at home. There were many that compare favorably with imported stock. Five good aged stallions conceded victory to Elator, shown by Dan. McKinnon & Sons, Coningsby, Ont. This is a large horse, by Baron Elator, of good type and action, and was made male champion of the Canadian-breds. Beside him stood Duke of Flemington 2nd, by Duke of Flemington, owned by Nathaniel Thompson, Orangeville, Ont. Third place was won by A. G. Gornley, Unionville, Ont., with Victor, by Fullerton, and fourth place went to Celtic Pride, by Scottish Celt. Ten good two-year-old stallions competed. The quality and size of many of them compared favorably with those of the imported classes. Reserve for sweepstakes turned up in the first-prize colt, Baron Acme, a good bay, first at Toronto last fall. He is owned by Smith & Richardson. A. G. Gornley landed in second with Prince of Burdennett, a bay. Third was Brilliant Baron, owned by Wm. Wagester, Tavistock, Ont.; fourth, Prince Loudoun, exhibited by Peter Davidson & Son, Fergus, Ont.; fifth, Burgie's Prince, owned by R. M. Holtby, Manchester, Ont.; sixth, Brogie's Stamp, owned by H. & P. Lyons, Dundas, Ont.; and seventh, Baron Chief, owned by Arch. Coulson, O'Sullivan's Corners, Ont. The yearling stallions were also of good size and quality. The red was won by Watson McGregor, a good son of Lord Watson, out of Queen's Daughter, owned by W. J. Taylor, Grand Valley. The blue went to Dandy Prince, owned by R. C. Rogerson, Fergus, Ont.; third to Baron Bebee, owned by Archie Crow, Tara, Ont.; fourth to Buster Brown, owned by Hodgkinson & Tisdale; fifth to Raisuli, sixth to Hillcrest Favorite; seventh to Hillcrest Fauntleroy, all owned by Mr. Holtby. There were three very high-class mares three years and over. Mapledale Daisy is a chestnut, with face and all legs white, sired by Royal Baron, and owned by W. A. Francis, Cammington, Ont. The blue was placed on Lyndoch Queen, owned by the Dominion Transport Co., leaving third to Thorncliffe Bell Troon, owned by J. L. Clark, Norval, Ont. Mare two years old—1, Belle Priam, owned by Smith & Richardson (this filly was also reserve for championship); 2, Ruby Rose, Ned E. McKinnon, Coningsby, Ont.; 3, Lady Chaplain, Wm. McGee, Beachville, Ont.; Yearling filly—1, Clyde Park Bay Queen, Alex. F. McNiven; 2, Lady Electa, Smith & Richardson.

Shires.—This class, while not strong in numbers, was of good quality. Aged stallions—Only three animals competed in this section, and to these the judges awarded but two prizes. Honors were once more for John Gardhouse & Sons, of Highfield, Ont., with Royal King 3rd. Second place went to Intake Forester, a good black horse, by Lockinge Albert, with hind and near fore legs white, and white face. Again, in three-year-old stallions the numbers were small, only four competing, but the quality was good. Maplehurst King, by Eton Harold, dam Deepiny Rose, owned by R. D. Ferguson, Port Stanley, secured the coveted red, the blue going to Holdenby Chancellor, by Lowesby, owned by J. M. Gardhouse, Weston, Ont. Third went to Porter Bros., Appleby, Ont., on Proportion, fourth to Joe Gans, by Bank of Wales, shown by F. Drury & Son, Charming Cross, Ont. Yearling stallion—The very good colt, Sand Boy II., by Sand Boy, dam Normoornell II., won the red ribbon in this class. Male champion was Royal King 3rd, and reserve, Sand Boy II. Mare, three years and over—This was a very strong class, some of the entries being of very high quality, size, substance, style and action. First and champion was Bluebell, by Horbling Harold, owned by J. M. Gardhouse. The blue was placed on Holdenby Nicausis, by Northgate Prince, dam Vulcan of Worsley, owned by J. Gardhouse & Son, Highfield, Ont. Two-year-old mares—1, Jessie Blagdon, by Power o' Blagdon, dam Humber Bess, owned by J. M. Gardhouse; 2, Tuttlebrook Gem, by Watnall Warrior, dam Violet, owned by J. Gardhouse & Sons; 3, Viola Gem, by Admiral Togo, dam Viola, owned by Porter Bros.; 4, Maplehurst May Queen, by Bay Prince, dam Queen of Sheen, owned by R. D. Ferguson; 5, Black Beauty, owned by Jno. Gardhouse & Son.

Hackneys furnished a very strong class, some of the best on the continent competing. As with Clydesdales, the judges—who were, Dr. A. B. Campbell, Berlin; W. H. Gibson, Beaconfield, Que., and B. Rothwell, of Ottawa—had no easy task in picking the winners. There were ten high-class horses in the section for aged stallion class, 15 and over. First prize went to that well-known winner, Crayke Mikado, by Garton Duke of Connaught, now owned by Miss K. L. Wilks, Galt, Ont. He is a big, typical horse, full of quality, with straight and flash action. Second was T. H. Hassard's Marlon Cassius, by Cassius, another well-known winner, a flash, true, high and fast mover. Third place went to Scotch Hazel, by Dairyman John, owned by W. A. McLachlan, Hillsburg, Ont. Fourth went to Royal Fashion, by His Majesty,

owned by John F. Kerr, Heathcote. Fifth to Glennifer, by Middleton Relish, owned by J. E. Husband, Eden Mills, Ont. Sixth to Southhope King, by Garton Gd. Duke, owner W. E. Butler, Ingersoll, Ont. Ten more good horses were entered in the section for aged stallions under 15. These were also of very high-class quality. The red ribbon was won by that celebrated champion, Brigham Radiant, exhibited by the Graham-Renfrew Co. Comment on this horse is superfluous. The blue went to Blanch Surprise, by Rosador, owned by John A. Boag & Son, Queensville, Ont. This is a fast and flash-going horse, and very typical. Third place went to British Yeoman, by Pilot, owned by T. H. Hassard; fourth to Derwent Performer, by Rosador, a chestnut with excellent conformation, and a grand mover, shown by G. H. Pickering, of Brampton; fifth, Admaston Nugget, by Goldfinger, owned by Bennett Bros., Carlisle; sixth, Langton's Colonel, by Gribthorp Playmate, owned by T. A. Cox, Brantford; seventh, Devondale, by St. Thomas, owned by W. E. Butler, Ingersoll, Ont. In this, as in other classes, many high-class horses had to go without ribbons. The very nice colt, with good conformation and action, Dictator, by Storm King, owned by Hodgkinson & Tisdale, won in the class for two-year-old stallions. Championship honors were again for Brigham Radiant. Four good mares competed. The red decorated Oak Park Belle, by Warwick Premier, owned by Crow & Murray, Toronto. This is a mare of good quality, fast, with flash and high action both fore and rear. The blue was placed on Oak Park Daisy, by Warwick Premier, owned by T. A. Cox, Brantford, Ontario. She was followed by Waverly Marion in third, owner G. H. Pickering, Brampton, Ont.; and Trilby in fourth, owners, Watson Bros., Eden Mills, Ont. A pair of good two-year-old fillies faced the judges. Dainty Fashion, by Linden Renown, is the name of the winner, exhibited by Hodgkinson & Tisdale, of Beaverton. The blue went to Impetuous, a nice chestnut, by Commodore, exhibited by W. S. Forsyth, manager for J. R. Thompson, Guelph, Ont.

Standard-breds.—Some of the best individuals on the continent competed in this class. The numbers were not as large as in some other classes, but the individuality of many of them was exceptionally good. The judge was Dr. Routledge, of Lambeth, Ont. Aged stallions.—In this class there were 11 entries. The red ribbon was won by the Madison Square and multi-champion, Mograzia, owned by Miss K. L. Wilks. This horse requires no laudation. He has size, style, speed and action to please the most exacting, and guaranteed still another sweepstakes award. The blue ribbon went to General Worth, by Gambetta Wilkes, owned by C. H. Mabse, Tillsonburg, Ont.; third, Antitou, a son of Milroi, dam Anne Wilton, owned by L. Sargent, Fergus, Ont.; fourth, Steel Bend, by Steel Arch, owned by Stricker & Co., Drayton, Ont.; fifth, Imperial Jr., by Wilfrid Cecil, owned by Fred Garbutt, Lambton Mills, Ont.; sixth, John M. B., by Steel Arch, owned by Geo. R. Wilson, Galt, Ont. Six good two-year-old colts faced the judges. Jim Todd, the winner, as a brown colt, of good conformation and excellent action, by Todd, dam Baroness Helena, by Baron Wilkes, and owned by Miss K. L. Wilks. The blue ribbon went to General Melrose, by King Melrose, dam Sadie Brino. This is a colt of good type and action, owned by J. M. Gardhouse. Third place went to Oro Hancock, by Oro Wilkes, owned by Peter Bener, Morriston, Ont.; fourth to Southwick, by Theodore Shelton, owned by H. W. Lumley, Ridgeway, Ont.; fifth to Prince Melrose, by King Melrose, owned by W. H. Shore, Glanworth, Ont.; and sixth to Simon J., by Arbutus Kan, owned by A. Young, Glanford, Ont. In mares two years and under, Peter Bener won the red in two year-old fillies with Miss M. B., by Oro Wilkes, a very classy filly, with grand action and excellent manners. The blue was placed on Flo Ideal, owned by Wm. Sager, St. George, Ont.; third, Ideal Rose, by Beau Ideal, owned by Mr. Sager; fourth, Woodbine Posey, by Jud Posey, owned by Wally Steen, Perry West, Ont. Miss Wilks won fifth with Directress-General, by Director-General.

Thoroughbreds were not present in great numbers, but the quality was good. S. B. Fuller, Woodstock, Ont., placed the awards. Five good aged stallions were forward. The red ribbon was won by Paterson Bros., East Toronto, with Halfling, a son of McHeath, a typical Thoroughbred, brown in color, a stout, thick fellow, with good shoulders, short back, strong loins, and good action. The blue ribbon went to Yoritomo, a son of Saturna, a typical brown horse, owned by F. D. Parsons, Guelph. Third place was won by Cricklade, by Ladus, owned by W. H. Shore, Glanworth, Ont. Fourth by Cormorant, by Phoenix, owned by Jas. Boyvaire & Sons, Brampton, Ont.; and fifth to Perse, by Persistence, owned by Lt.-Col. D. McCrae, Guelph, Ont. Three good colts appeared in the class for two-year-olds or under. The red went to Nasbaden, by Nasturtium, owned by Went to Nasbaden, by Nasturtium, owned by Thayer Bros., Almyer, Ont. He is a large chestnut colt, with good quality, and a nice way of going. Second place was won by Ormason, by Ormament, third by a colt owned by Jos. W.

Arthurs, Brampton, Ont. The champion Thoroughbred was Halfling. Mare, 2 years and under—1, Stay Camie, by Camie Boy, owned by Crow & Murray; 2, Edna L., by Barrington, owned by Jos. W. Arthurs.

Ponies.—Judge, A. E. Major, Whitevale. Hackney ponies, 14 and under—There were but two in this section, but what was lacking in numbers was made up in quality. The celebrated pony, Plymouth Horace, owned by the Graham-Renfrew Co., won the red ribbon. In respect to type, quality and action, this little fellow will take second place to no man's horse. Another grand pony, Royal Review, by Firebox, owned by T. H. Hassard, won second place. Hackney pony mares, 14 and under—In this class there were three good mares. First place was won by the two-year-old filly, Berkeley Swell, by Berkeley Royal, a bay, owned by T. A. Cox, Brantford, Ont. Second prize went to Little Clipp, by Gold Link, owned by T. H. Hassard; and third to Repertoire, by Little Wonder, owned by J. M. Gardhouse, Weston, Ont. Pony stallions, 14 and under, any age, any breed other than Hackney, were a mixed class, with high-class ponies. The red went to the Welsh pony, Dinarth Hero, by Liddwen Flyer, owned by Simon Aitchison, Hespeler, Ont. Second and fourth places were won by Bert C. Ratz, of Tavistock, Ont., with Welsh ponies. Third place was won by J. Lloyd-Jones, of Burford, Ont., with the Welsh pony, Daylight. Champion pony stallion was Plymouth Horace. Pony mares, any age, any breed but Hackney, 14 and under, furnished another mixed class. T. A. Cox won the red with the Shetland pony, Tiny Kit. A. Templer, of Burford, was second, with the Welsh pony, Winnie. Third went to the Welsh pony, Dolly, owned by J. Lloyd-Jones; fourth to Dinarth Fly, owned by Simon Aitchison, and fifth to a very small and attractive Shetland, Gipsy, owned by A. Malcolm, of Guelph. The Hackney filly, Berkeley Swell, scored for the pony mare sweepstakes, thus carrying the second championship for this popular breed.

Heavy-draft Horses.—In this class, the very best draft horses in the Province competed, and in some sections the winners were hard to pick. Gelding or mare, 2 years and over, sired by a registered Clydesdale or Shire, shown in single harness—1, Major Graham, owned by the Dominion Transport Co.; 2, Harry, owned by Smith & Richardson; 3, Punch, owned by Smith & Richardson; 4, Baron Duke, owned by Dan McKinnon & Son; 5, Leiper, owned by D. A. Murray, Bennington, Ont.; 6, Elsie McGregor, owned by Hodgkinson & Tisdale; 7, Robin, owned by Jno. W. Duncan, Orkney, Ont. Mare or gelding, shown in hand, bred in Canada, and the property of a person actually engaged in farming or agricultural pursuits only, and owned by the exhibitor previous to November 1st, 1909; to be sired by a registered Clydesdale or Shire stallion—1, Harry, owned by Smith & Richardson; 2, Punch, owned by Dan McKinnon & Son; 3, Baron Duke, owned by D. A. Murray; 4, Baker, owned by D. A. Murray; 5, Elsie McGregor, owned by Hodgkinson and Tisdale; 6, Lady Luetta, owned by J. M. Gardhouse. Heavy-draft team in harness, geldings or mares—1, Harry and Punch, owned by Smith & Richardson; 2, Baker and Leiper, owned by D. A. Murray; 3, Robin and Queen, owned by John W. Duncan; 4, Baron Duke and Bob Anderson, owned by Dan McKinnon & Son. Prince of Wales' prize for three heavy-draft colts (registered), either sex, two years old and under—Won by Smith & Richardson with Dunure Soutar, Dunure Gold Link, and Commodore.

Delivery Horses.—Single light delivery outfit, horse to be under 16 hands, and not more than 1,150 pounds in weight, horse to count for 60 per cent., and vehicle and appointments 40 per cent.—1, J. & A. McHardy, Guelph, Ont.; 2, Chas. T. Hicks, Guelph, Ont.; 3, James Gow, Guelph, Ont. Single heavy delivery outfit, horses to be over 1,150 pounds in weight; horse to count 60 per cent., and vehicle and appointments 40 per cent.—1, James Dewar & Son, Guelph, Ont.; 2, A. Malcolm, Guelph, Ont.; 3, Chas. K. Flowers, Guelph, Ont.; 4, Chas. K. Flowers.

Judging Competition.

Keen interest was taken in the judging competition at the Ontario Provincial Winter Fair, where O. A. C. students were to be seen, thick as bees, endeavoring, in the limited time available for instruction, to put to the test the knowledge and practice gained in their college course.

The Seed Department.

The Seed Department has grown in all its sections to the extent of about one-third. There are three departments: (a) the general exhibit, open to entry by anyone; (b) the Canadian Seed-growers' Association class; and (c) the field-crop competition. In the first there were 160 exhibits, in the second 60, and in the field-crop competition 107. The general quality of the stuff was excellent. Some of the exhibitors have made remarkable progress in learning how to select. Corn was a little better than last year in respect to selection, but hardly as dry, owing to the late season, and some good lots were put down

on account of this. The interest manifested by exhibitors seems on the increase, and some men with corn to sell placed a good many orders. In the exhibition of grain from the standing-field-crop competition conducted by the Ontario Department of Agriculture, the first-prize winners were: In oats, John Doyle, Paris, with a sample of Abundance (second being Foster Bros., of Clarksburg, with the Banner variety). Fall wheat, Wm. Sparling, Anderson; variety, Dawson's Golden Chaff. Spring wheat, P. W. Boynton & Son, Dollar; variety, Wild Goose. Barley, C. W. Burrill, Onondaga; variety, Mandscheuri. Corn, Frank Sutor, Chatham. Peas, Geo. McDonald, Wroxeter; variety, Irvine peas. Beans, W. C. Sifton, Palmyra; variety, pea beans. Potatoes, Fletcher Walker, Royston.

Lectures.

The number of those who crowded into the lecture hall at the Winter Fair, and the hundreds more who would have gone in had there been standing room left, showed the estimate placed upon the lectures, for which such careful preparation had been made.

Professor Wm. H. Day's address on under-draining was brilliant, delivered with an enthusiasm that was infectious, and convincing. From reports received, he showed the wonderful increase in yields that resulted from underdraining, and then, when many were thinking hard about what they were losing by having certain fields under-drained, he boldly faced the question of cost. Referring to an Act of Legislature, under which money can be borrowed from the Government at 1 per cent. interest, payable in twenty years, and estimating the average cost of draining an acre at \$25, he deduced the following: \$100 will drain four acres; the annual payment required on that sum, so that principal and interest shall all be paid in twenty years, was \$7.36. Dividing this by four, it is found that the annual charge for twenty years incurred in draining an acre of land is \$1.84. This way of stating the case made a profound impression.

Quite a number of the members of the Canadian Seed-growers' Association and others met in one of the rooms of the City Hall on Thursday afternoon of the Winter Fair, to discuss some problems of interest to the members.

Maritime Winter Fair.

Ninth in point of years, first in numbers and quality of exhibits, was the recent Maritime Winter Fair, held at Amherst, N. S., and opened by Earl Grey, the Governor-General of Canada. As at Guelph, the building, erected especially for the Fair a few years ago, was found too small for the increasing exhibits. At a cost of \$8,000, a large addition was built early in the present season, and again it is filled to its limit. Besides live stock, there are numerous exhibits of excellent apples, grains of various kinds, and vegetables, potatoes being ideal in quality throughout the main lots on exhibition.

The grand championship of the show was won by W. W. Black's thick-fleshed, low-set, typical Hereford steer, his runner-up being a grade heifer shown by Amos Fowler. This was a meaty, smooth, even-fleshed individual, which, on being slaughtered, furnished the first-prize carcass, yielding a large percentage of lean meat beautifully marbled with the fat. It was ideal in firmness and quality, while the grand champion steer's carcass was too fat, and so soft as not to stand firmly after cutting. Some eighty cows were entered in the dairy test, Ayrshires and Holsteins being the two strongest breeds. A Holstein cow exhibited by Logan Bros., of Amherst Point, winning the silver-cup championship. Sheep and poultry were strong, but the swine classes numerically scant, although better and more uniform in quality than a year ago.

An enthusiastic annual meeting was held by the Pomological and Fruit-growing Society of Quebec at Macdonald College last week, Dec. 9th and 10th. Much regret was expressed at the absence of President Reynaud, of La Trappe, Que., who has been stricken with paralysis. Prof. W. S. Blair, of Macdonald College, is the new president elected. See report next week.

In regard to a report in the newspapers, to the effect that the Canadian Cannery, Limited, Hamilton, had acquired control of the Aylmer (Ont.) Condensed Milk Co., the latter write us that their head office and sales department have been transferred to Hamilton, but no change is made in the factory. They have been taking in lately about 20,000 pounds milk per day, paying \$1.45 per cwt. for milk during December, January and February, and \$1.35 in March.

The annual meeting of the Clydesdale Horse Association of Canada has been set for January 31st.

The dairy building of the Manitoba Agricultural College was burned on Dec. 10th. Loss, \$40,000; covered by insurance.

## IMPERIAL BANK OF CANADA

CHARTERED 1875

Capital Authorized, \$10,000,000.00  
Capital Paid Up, 5,000,000.00  
Reserve, 5,000,000.00

### SAVINGS DEPARTMENT

\$1.00 opens an account. Interest paid at highest current rate from date of deposit.

Farmers' sale notes discounted.

Branches throughout the Dominion of Canada.

## MARKETS.

### Toronto.

#### LIVE STOCK.

At West Toronto, on Monday, December 18th, receipts numbered 105 cars, comprising 1,806 cattle, 12 hogs, 2,603 sheep, and 40 calves. Quality good; prices higher. Exporters, \$5.75 to \$6.50; bulls, \$4 to \$5.25; Christmas cattle, \$6 to \$8, and three cattle \$9; choice butchers', \$5.25 to \$6; good, \$5.30 to \$5.60; medium, \$4.50 to \$5.25; common, \$4 to \$4.25; cows, \$3.75 to \$4.75; milkers, \$40 to \$70 each; calves, \$4 to \$7.50 per cwt.; sheep, \$4 to \$4.50; rams, \$3.50 to \$3.75; lambs, \$6.40 to \$6.90. Hogs, selects, fed and watered, \$7.85, and \$7.60, f. o. b. cars country points.

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

Receipts of live stock at the City and Union Stock-yards were fairly large considering the season of the year, amounting, all told, to:

	City.	Union.	Total.
Cars	276	117	393
Cattle	4,706	1,641	6,347
Hogs	2,979	1,491	4,471
Sheep	3,096	1,472	4,568
Calves	256	46	302
Horses	1	187	188

The quality of cattle on sale as fat, was better; that is, there were more of the better class. Trade was good; never better than it is now, all things considered. Prices last week were fully 25c. per cwt. higher for butchers' cattle. Sheep, lambs, calves and hogs were firm, at quotations given.

Exporters.—There were not more than half a dozen loads of export steers offered, the quality of which was medium. These sold at \$5.75 to \$5.85; two or three loads of export bulls sold at \$4 to \$5 per cwt.

Butchers'.—Prime picked lots sold from \$5.50 to \$5.75; loads of good, \$5.25 to \$5.50; medium, \$4.75 to \$5.15; common, \$4 to \$4.50; cows, \$3 to \$4.60; canners, \$1 to \$2.50 per cwt.

Stockers and Feeders.—Receipts have been light, all offered being quickly taken by farmers and dealers, at steady prices. Feeders, \$4 to \$4.75 per cwt.; stockers, \$2.50 to \$3.75 per cwt.

Milkers and Springers.—Receipts have been liberal, with no abatement in prices or demand. Prices ranged from \$35 to \$85 each.

Veal Calves.—Receipts moderate; prices very firm, at \$3 to \$7 per cwt.

Sheep and Lambs.—Receipts are becoming smaller, and prices firmer. Export ewes, \$4 to \$4.25; rams and culls, \$2.75 to \$3.25 per cwt.; lambs, \$5.85 to \$6.25, and as high as \$6.40 was paid for one double-deck of select ewes and wethers.

Hogs.—Receipts moderate; prices firm. Selects, fed and watered at the market, \$7.85 to \$7.90, and \$7.60 to \$7.65, f. o. b. cars.

Horses.—Receipts of horses were large, about 200. Trade was not quite as brisk as it had been for the two previous weeks. At Monday's and Wednesday's auction sales, about 75 horses changed hands, but several lots were disposed of by private sale. Manager Smith reports prices as follows: Drafters, \$180 to \$220; general-purpose, \$130 to \$160; drivers, \$100 to \$150; wagon horses, \$150 to \$210; serviceably sound, \$25 to \$60 each. The quality of many of the drafters was first-class, some of which were unsold.

#### BREADSTUFFS.

Wheat.—No. 2 white, \$1.04 to \$1.05; No. 2 mixed, \$1.04 to \$1.05; Manitoba northern, No. 1, \$1.05; No. 2 northern, \$1.03; track, at lake ports. Rye—70c. per bushel, outside. Peas—No. 2, 87c. to 88c. Buckwheat—No. 2, 52c. to 53c. outside. Barley—No. 2, 60c.; No. 3X, 57c. to 58c., at outside points. Corn—Kiln-dried corn, 67c.; No. 3 yellow, 65c., on track, Toronto. Oats—No. 2, 36½c. to 37c., at country points. Flour—90 per cent. Ontario patents, \$4.15 to \$4.20; Manitoba first patents, \$5.60; second patents, \$5.10; strong bakers', \$4.90.

#### HAY AND MILLFEED.

Hay.—Baled, car lots of No. 1, on track, Toronto, \$13.50 to \$14, and \$12.50 to \$13 for No. 2.

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

Bran.—Car lots, on track, Toronto, in bags, \$22.

Shorts.—Car lots, on track, Toronto, \$24.

#### SEED MARKET.

The seed market is dull. Prices unchanged. Alsike, fancy, \$6.50 to \$6.75; No. 1 alsike, \$6 to \$6.25; red clover, No. 1, bushel, \$7.50 to \$8.25; red clover (containing buckhorn), bushel, \$5 to \$6; timothy, per bushel, \$1.40 to \$1.60.

#### COUNTRY PRODUCE.

Butter.—Market steady, with no change in quotations. Creamery pound rolls, 27c. to 29c.; creamery solids, 26c.; separator dairy, 25c. to 26c.; store lots, 22c. to 24c.

Cheese.—Market unchanged. Large, 13c.; twins, 13½c.

Honey.—There is no change. Extracted, 10c. to 10½c.; combs, per dozen sections, \$2.25 to \$3.

Eggs.—Market firm. Cold storage, case lots, 29c.; fresh-gathered, in case lots, 35c. New-laid, on the farmers' market, scarce, at 45c. to 50c.

Beans.—Market unchanged, \$1.75 to \$1.80 for primes, and \$1.90 to \$2 for hand-picked.

Potatoes.—Receipts liberal. Prices unchanged, at 50c. per bag, for car lots, at Toronto.

Poultry.—Receipts large, both of live and dressed. Prices for live poultry were as follows: Turkeys, 12c. to 14c.; geese, 8c. to 9c.; ducks, 10c. to 11c.; chickens, 10c. to 12c.; fowl, 8c. to 9c.

#### HIDES AND WOOL.

E. T. Carter & Co., 85 Front street East, Toronto, have been paying as follows: No. 1 inspected steers and cows, 13½c.; No. 2 inspected steers, cows and bulls, 11½c.; country hides, cured, 12½c. to 13c.; country hides, green, 12c. to 12½c.; calf skins, 14c. to 16c.; horse hides, No. 1, \$3.00; horse hair, per lb., 32c.; tallow, per lb., 5½c. to 6½c.; sheep skins, 85c. to \$1; wool, and raw furs, prices on request.

#### FRUITS AND VEGETABLES.

Market about steady. Fruits and vegetables are fairly plentiful. Apples, winter, \$2.50 to \$3.50 per barrel; apples, fall cooking, \$2 to \$2.50; pears, 75c. per basket; grapes, plentiful and cheap, at 15c. to 30c. per basket; carrots, 40c. per bag; turnips, \$6.50 per ton; parsnips, 60c. per bag; beets, 10c. to 50c. per bag; cabbage, dozen, 10c. to 50c.; onions, \$1 per bag.

### Buffalo.

Cattle.—Prime steers, \$6.85 to \$7.25.

Veals: \$6 to \$10.50.

Hogs.—Heavy, \$8.80 to \$8.85; mixed, \$8.75 to \$8.80; Yorkers, \$8.40 to \$8.75; roughs, \$7.80 to \$8.

Sheep and Lambs.—Lambs, \$5.25 to \$8.65; yearlings, \$6.50 to \$7.25; wethers, \$5.95 to \$5.75; ewes, \$5 to \$5.50; sheep, mixed, \$2 to \$5.50; Canada lambs, \$8 to \$8.25.

### Chicago.

Cattle.—Steers, \$5.60 to \$9.50; cows, \$3.50 to \$5; heifers, \$3 to \$6; bulls, \$3.40 to \$4.75; stockers and feeders, \$3.75 to \$5.25.

Hogs.—Choice heavy, \$8.55 to \$8.65; butchers', \$8.50 to \$8.60; light mixed, \$8.20 to \$8.35; choice light, \$8.35 to \$8.45; packing, \$8.15 to \$8.60.

Sheep and Lambs.—Sheep, \$1 to \$6; lambs, \$6.75 to \$8.40; yearlings, \$5.50 to \$7.65.

### Montreal.

Live Stock.—Shipments of live stock are now going via St. John, N. B., and Portland, Me., those for the first week being 1,735 head. Offerings of cattle on the local market showed an increase last week, and, as the weather was unfavorable, buying was slow. A dozen or so cars of Northwest ranchers were offered, and as the quality was fine, they met with ready sale. Choicest steers sold at 5½c. per lb., fine 4½c. to 5c., good 4½c. to 4¾c., medium 3½c. to 4c., and common as low as 3c., canners being 1½c. to 2½c. per lb., according to quality. The market for sheep and lambs continued firm, and prices advanced a large fraction, supplies being limited. Sheep sold at 4½c. to 4¾c., lambs being 6c. to 6½c., while calves brought all the way from \$3 to \$12, as usual, according to quality. The hog market showed a tendency to strengthen once more. Prices were stronger than the previous week. Selected lots from west of Toronto brought about 8½c., weighed off cars, those from the east being 8½c. per lb.

Horses.—Heavy draft, 1,500 to 1,700 lbs., \$225 to \$300 each; light draft, 1,400 to 1,500 lbs., \$180 to \$240 each; light horses, weighing from 1,000 to 1,100 lbs., \$100 to \$150; old and broken-down animals, \$75 to \$100, and fine saddle and carriage animals, \$350 to \$500 each.

Dressed Hogs.—Sales of abattoir-dressed hogs were made at 11½c. to 12c. per lb., country-dressed bringing 11c. to 11½c. per lb. The rest of the market was fairly steady, being \$30 to \$32 per barrel for pork, and \$15 for beef. Lard, 16½c. to 17½c. for pure, and 11½c. to 12½c. for compound. Market was fairly active and strong.

Potatoes.—Market steady. Many poor potatoes in the market which may be had at 40c., or thereabouts, but the choicer qualities are held firmly at around 50c. to 55c. per 90 lbs. carloads, on track. Fancy stock cannot be had under 57½c. per 90 lbs.

Poultry.—As the season advances, and it becomes constantly more apparent that the market is very short of stock, prices are going gradually higher. Some holders last week asked as high as 19c. per lb. for finest fresh-killed, unfrozen turkeys, although the general run of choicest were quoted at around 18c., and very nice stock might be had at 16c. to 17c. By Monday, 13th, prices had jumped to 20c. for choice, one lot being reported at 21c. Chickens were up to 16c. for fancy, and 14c. for fine, while nice geese could not be had under 11c. to 12½c., according to quality. Even choicest fowl would bring 12c., although other qualities might be had at 10c. and less. Ducks were very firm, at 14c. to 15½c.

Apples.—Shipments no longer passing through this port. The market had a decline last week, owing to excessive supplies. Six or seven cars of apples were sold here at auction, and the prices realized were around \$2.25 per barrel for No. 2 apples, and \$2.75 for No. 1, being a decline of 25c. to 40c.

Butter.—The quality of the make has been good this fall, and, owing to the open weather, very little falling off is being shown just now. Grocers are paying 25½c. to 26c. for choicest makes, dairies being 21c. to 23c., and rolls about 23c.

Eggs.—Some talk of 1c. advance, but others claim to be prepared to sell at previous prices, namely, 26c. per dozen for No. 1 candled, 29c. for selects, and 35c. for new-laid.

Cheese.—Market dull, and prices next to nominal, at 11c. to 11½c. per dozen for Quebec; 11½c. to 11¾c. for Townships, and 11½c. to 11¾c. for Ontarios.

Grain.—No. 2 Canadian Western oats, 40½c. to 40¾c. per bushel, carlots, store, No. 2 barley, 66c. to 67c., and Manitoba feed barley, 52c. to 58c.

Flour.—Manitoba spring wheat patents, firsts, \$5.70 per barrel; seconds, \$5.20, strong bakers', \$5. Ontario winter wheat patents, \$5.50 to \$5.60; straight rollers, \$5.10 to \$5.25.

Millfeed.—The market holds around the recent decline, being \$20.50 to \$21.50 per ton for Ontario bran; \$23 to \$23.50 for middlings, pure grain meal being \$32 to \$33, and mixed meal being \$25 to \$27. Manitoba bran is \$20, and shorts \$22 to \$23. Gluten meal is \$31 to \$32, oil cake being \$35.50 to \$36.

Hay.—Market firm and active. No. 1 hay, \$13 to \$14 per ton; No. 2, \$12 to \$13; clover mixed, \$11 to \$11.50, and clover, \$10.50 to \$11.

Hides.—Trade slow; calf skins 1c. lower, at 13c. and 15c. per lb., owing to falling off in quality. Hides, 13c., 14c. and 15c. per lb.; sheep skins, 90c. to \$1 each; horse hides, \$1.75 and \$2.25. Tallow, 1½c. to 3½c. per lb., for rough, and 5c. to 6c. for rendered.

### British Cattle Markets.

London cables for cattle 12c. to 14c. per lb. for live cattle, dressed weight; Liverpool, 11½c. to 13½c.; refrigerator beef, 10½c. to 10¾c. per lb.

### Record Beef Cattle Prices

On December 9th, at Kansas City, on the open market, \$10.50 per cwt. was paid for two carloads of cattle, a record figure for the year.

### QUESTIONS AND ANSWERS.

1st.—Questions asked by bona-fide subscribers to "The Farmer's Advocate" are answered in this department free.

2nd.—Questions should be clearly stated and plainly written, on one side of the paper only, and must be accompanied by the full name and address of the writer.

3rd.—In Veterinary questions the symptoms especially must be fully and clearly stated, otherwise satisfactory replies cannot be given.

4th.—When a reply by mail is required to urgent veterinary or legal enquiries, \$1.00 must be enclosed.

### Miscellaneous.

#### SWELLED LEGS.

I have a mare, five years old, in foal, and in very good condition, but her legs swell when standing in the stable overnight, and her hair stands straight up. What should I feed her to make her all right?  
A. L. R.

Ans.—Swelling of the legs is not unusual in the case of in-foal mares. Dosing with medicine is not advisable, as a rule, in such cases. Regular exercise and laxative food, as preventives, are preferable. Give bran mashes two or three times a week, and a few carrots, or a turnip, occasionally.

#### RINGBONE.

I have a horse with a ringbone; has been pretty lame for over a year; let him run on the grass all summer, and blistered with several patent remedies. But is still lame. I think it is the low ringbone, between hoof and fetlock. What would you advise to take lameness away?  
N. H.

Ans.—The proper treatment, if blistering fails, is to get your veterinarian to free and blister. If this fails, an operation known as neurotomy may be performed, which consists in a removal of a part of the nerves that supply the foot. This operation cures the lameness by removing sensation, but does not cure the disease.

#### RE-MAILING.

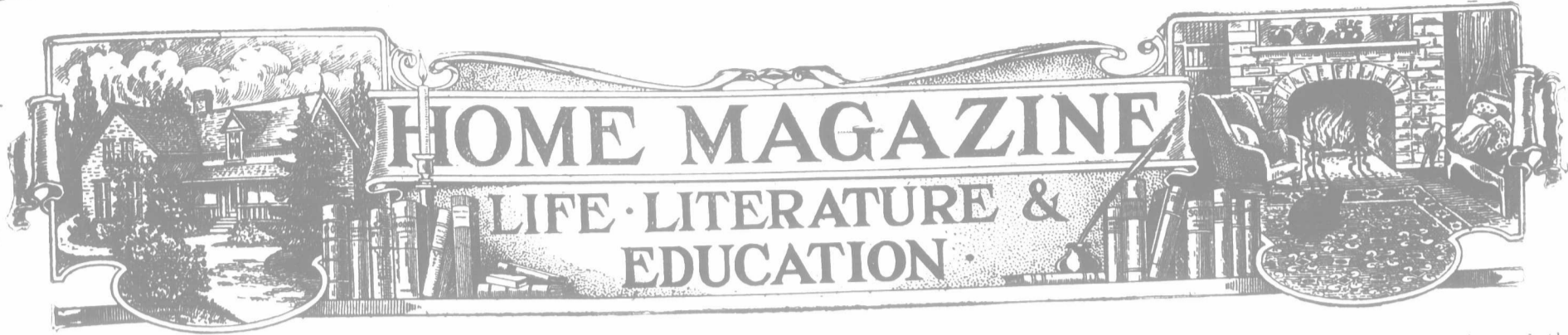
Suppose a person is working at a certain town and moves to another, and the Postmaster at the vacated town knows and gives out her mail, and it is brought back as soon as possible (not over a day), in good condition, is the Postmaster supposed to take it or not, or the person bringing it there to pay two cents to forward it, or take it back to his place again? Can they charge three cents if you have marked out the post office and put on the right place in forwarding them? All No. 1 mail matter.  
W. M.

Ans.—The Postmaster must forward such mail matter to the revised P.O. address, without additional payment or stamps, if it is in good condition and has not been opened.

The dean of a Western university was told by the students that the cook was turning out food not "fit to eat."

The dean summoned the delinquent, lectured him on his shortcomings, and threatened him with dismissal unless conditions were bettered.

"Why, sir," exclaimed the cook, "you oughtn't to place so much importance on what the young men tell you about my meals. They come to me in just the same way about your lectures."



### The Women's Institute and Its Work.

"I've lost my wife! Can anyone help me to find my wife? Here, you unmarried fellows, let a fellow who can't find his wife through!"—these were a sample of the remarks that kept the pushing, surging crowd at the Grand Trunk station at Guelph last night (Dec. 9) in a ripple of amusement until the evening trains east and west went out. Farmers all, fur-coated men down for the big Winter Fair, with a goodly sprinkling of their wives and daughters and sisters—for the Women's Institute Annual Convention, held contemporaneously with the Stock Show, was this year the "biggest yet."

Guelph is proverbially a cold place (cold hands and warm heart!). They always manage to muster a big storm for the Convention week there, and winds blow great guns over the College campus on the hill, and sleets come down, and snows drift; but all this only gives zest to the goings-on, and the good, crisp oxygen blows away the cobwebs, and pumps good, bright thinking powers into the heads of the women who troop by twos and threes and dozens in a party among the beautiful evergreens by the old grey college, and on down to Massey Hall below.

A reporter at the W. I., who also reported some of the men's meetings down town, remarked that the men were "not nearly as enthusiastic, or as much interested in their meetings" as the women. In that statement lies the key-note of the success of the W. I. That very enthusiasm, from the worthy superintendent down to the shyest woman who has not yet learned to speak in public, but who can work for the cause in her own way, explains this phenomenon, viz., that within a few short years the membership of the W. I. in Ontario has run up from 0 to 13,841;—and also this: that today the "progressive Americans" are sending to Ontario from almost every State in the Union to find out how Women's Institutes can be successfully organized and conducted.

Enthusiasm never ran higher than this year; never was the business transacted in a more orderly manner, nor more strictly on time; never were the ladies more fluent nor ever did they seem to know better what they wanted to say, and how to say it. Without exception the addresses were clear, vigorous, and to the point, and this is as it should be. Women do know what they want, and what they think, and they have only needed a little practice in expression to put them at their ease when on their feet before an audience. It has taken a good deal of courage and self-urging, perhaps, to induce some of the delegates to raise their voices in that concourse of people (even the window-edges were filled with "audience"), but the consciousness of being able to "help" someone has prevailed. The subjects are women's subjects, and the motto, "For Home and Country," like the fiery cross that once sped over old Scotia's hills, has been inspiration enough to arouse even the most timid. The women of Ontario are finding out that they are not housekeepers only, but patriots, too, and that a patriot must not only "be," but must, also, work.

Now, to business;—but we shall not in this issue attempt to give anything like a detailed account of the Convention of '09. Our source is

limited, and to attempt to do so would be to present only a skeleton, a dry outline of the events, with scarcely a bit of the good, juicy meat adhering. We don't like our chicken and roast turkey that way. A fuller report, then, will appear in these pages, in the immediate future. In the meantime, suffice it to say that from the opening addresses by Mr. C. C. James (Deputy Minister of Agriculture), and President Creelman, to the closing talk on that important subject, "Nerves," by Dr. Helen McMurchy, of Toronto, the sentiments and methods advanced were at once inspiring and useful. Delegates from almost every county in the Province—even from far-away Algoma—told how the work of bettering the homes and the neighborhoods was advancing in their especial districts; practical talks were given on how to accomplish best the "Day's Work," by practical women, who knew whereof they spoke; and an address which will be long remembered was given by Dr. Annie Backus, on that subject which concerns us all, "Environment." "The Development of a Sound Mind in a Sound Body," was treated of by Mrs. Hart, of Galt; and not the least interesting items of the programme were the invariably entertaining and instructive "Question Drawer," and a demonstration of labor-saving appliances for the home, in which the alert little Dean of Macdonald Institute, Miss Watson, did the directing, and the Superintendent and his assistant the "manual labor,"—quite, as Miss Watson remarked with a twinkle, as things should be,—"two men to do the work!"

Now, will you pardon a divergence, —and this for the people who are not members of the Women's Institutes. You see, we "Farmer's Advocate" people want to do a little also, if we can, towards helping your work along.

Is the Women's Institute really becoming an educative force in this Province? Is it really helping to make better homes or better anything else? Or is it just a fad that will wear out or rust out in time? These are questions which have been asked, probably, by every thoughtful onlooker who has been watching the career of the W. I. since its inception. As long as the world lasts, you know, there will be the cautious ones, the conservative ones, the doubtful ones,—nay, the impatient ones also, who, forgetting that very few enterprises spring like Jove (was it?) "full-armed" at birth, and that the best things usually have to grow, are not willing to fake part in anything that does not seem perfect from the beginning.

It is, of course, safe to say that the W. I. was not markedly educative in its first stages. Its local meetings in those pioneer days consisted chiefly of an exchange of recipes, mere accounts of "How I do this or that," regardless of science, or food-values, or anything else above the plane of great-grandmother house-keeping. But there were great big possibilities in the W. I., and this the organizers well understood. They foresaw, what the ordinary members did not foresee, that out of these small beginnings great things were bound to come, that the inevitable result, if people could only be kept interested long enough, must be a broadening, an uplifting, a scrambling on, to scientific bases, such as were never even dreamed of heretofore in the philosophy of these farm

women, and which, when attained, must keep the Institute going by its own momentum. The organizers knew what scientific work and the possibilities of united effort meant, and they were contented to wait. Their anticipations have not been disappointed. The W. I. does not "know it all" to-day, and it never will. It is too big and broad for that. It is just climbing, and it means to keep on climbing, and it is accomplishing what it never could accomplish if it were satisfied, as Dr. Backus remarked, "to sit on a pedestal."

To-day, the question, "Is the Women's Institute Educative?" can only be answered by an emphatic affirmative. Old things, at least such of them as can be bettered, are being thrown behind, and the on-going is embracing subjects that, while compassing those of the mere eating and drinking part of the home, reach out to broader issues.

The most influential members of the Institute to-day are no longer satisfied with telling merely what they have done. They are reaching out for further information, and so responding to the infallible test of the most intelligent and most intellectual minds. They are asking for more science, more culture. They are asking such questions and making such remarks as these:

"I know that the poorly-nourished body can neither work well nor think well. I know that the mind in a poorly-nourished body is neither as cheerful nor as well-balanced as it ought to be. I know that indigestion, dyspepsia, and constipation, lead to serious results and complications, often to disease leading to death itself. What foods shall I give my family, and how prepare them in order that as many evils as possible may be averted, and the best results obtained?"

"What are the constituents of this food or that? Is it nutritious enough, or does it serve any other useful purpose to the body to make it worth its cost?"

"I know that health depends greatly upon good ventilation, good lighting, and good drainage. How shall my house be built in order that these things may be attained?"

"I recognize that to the influence of the home may be traced, to a great extent, the health, happiness and usefulness of the children who go out from it to take their part in the world. How should they be cared for and trained that they may make happy, good and useful men and women?"

"I realize that in justice to myself and my family I must have time to read and to indulge in social life to some extent. In order that I may have this time, I must be possessed of every labor-saving device possible. How shall I plan my house and how equip it that it may save as many steps and as much time as can be?"

"The task of sick-nursing comes to me as to others. How can I do it scientifically?—I well understand that nowadays the scientific housekeeper is the best housekeeper. What must I know in order that I can do my housekeeping scientifically?"

"Most certainly tasteful and beautiful surroundings influence character. How shall I furnish my house, how arrange my lawn and garden to obtain the maximum of beauty and harmony with such means as are at my disposal?"

"I am very sure that the education

of my children is a subject of the greatest importance. How can I come into touch with the teacher of our section, how work with her in order that the best results may be achieved?"

Delegates! did you not hear these very questions coming up "between the lines," as it were, and being answered by almost every statement made at the W. I. Convention last week? And will you not say us "yea" when we say that these questions, and such as these, are they which are being answered year by year in the meetings, at the conventions, and by reading in books and magazines, to which such questioning inspires? The speakers sent out by the Government, also, have, in the majority of instances, proved invaluable in disseminating information. Occasionally, there has been a misfit, a speaker who has proved incapable of the necessary fire, or even of the necessary interest in, or understanding of, her subject; but this was only to be expected in the initial stages. Year by year, the Department strives to send better and still better lecturers on the annual tours among the local W. I.'s, and, with the hundreds of students now graduating from the Macdonald Institutes at Guelph and Ste. Anne de Bellevue, there should soon be no lack of choice. . . . And so Ontario gets into line with those old-world countries, Austria, Belgium, Sweden, Norway, Denmark, Switzerland, France, and the German States, which have, for many years, conducted schools of domestic science and home economics specially adapted to country people.

Enough for this screed. More anon. D. D.

### Hope's Quiet Hour.

#### A Worthy Ambition.

"Let anxious thoughts of worldly honor cease,  
Let love of gain be driven from thine heart;  
These cannot help thee on the upward way,  
Nor keep from out thy soul sin's fiery dart."

I am not putting my text in the usual place to-day, because it is very important that you should read it carefully, and I know—from personal experience—that it is very easy to pass lightly over the text (because the words are so familiar), and pay more attention to the exposition, just because the words are new to the reader. The text I want to talk about to-day is S. John v.: 44.—"How can ye believe, which receive honor one of another, and seek not the honor that cometh from God only." There are some superficial observers who are in the habit of saying: "It doesn't matter what a man's beliefs are, so long as his actions are good." And yet our Lord's stern denunciations of "hypocrites" are echoed by our own instinctive conviction. We all have an intense contempt for hypocrisy, we feel that it is a debasing and despicable vice. If a man's actions declare him to be good, while his heart is bad, he seems to us to be many shades worse than one who—as the popular phrase is—"makes no profession of Christianity." Good behavior is not always a sign that the motive is good; though, in the long run, the motives will be seen in the actions. Let us look at a case of this kind, as described in S. John's twelfth chapter. Many of the rulers among the Jews, we are told, be-

lieved in Christ, but did not openly join His side, because the Pharisees would have put them out of the synagogue. Their actions were not what they would have been if their ambition had been a worthy one, "for they loved the praise of men more than the praise of God."

An unworthy ambition is a very insidious thing. It creeps into the heart—perhaps unnoticed—and gradually occupies more and more space, until it is a mighty force which only the power of God's Holy Spirit can conquer. These "rulers" had for years been accustomed to care more for the honor of men than for God's approval, the approval which could only be theirs if they were honest and true to their secret convictions. Then—when it came to a choice of sacrifices—they sacrificed the approval of God for the sake of keeping the honor of men. And, because they sought first the approval of men, trying to secure it at any cost of truth and honesty, they have for nearly 2,000 years received the hearty disapproval of men. Those who seek first God's approval, will find in the end that the approval of men has been added to it. All experience and history witnesses to this as a fact.

There is a great deal of work being done in the name of Christianity—but is all of it done for God? Does not the ambition to win the approval of men spoil a great deal of our energetic efforts? Too often we even encourage an unworthy ambition, so as to get big visible results. Our missionary sales must not be allowed to make a poor showing in the reports, our subscription must not look mean in the list, we must go to church with reasonable regularity, because it is a respectable thing to do. Even our Christmas giving is spoiled by this low ambition to win the praise of men. We don't offer our gifts to the King on His Birthday, but we think: "I must give So-and-So something as good as he will give me, or he will think me stingy." The remark that "an infant industry, like most infants, is recognized by the amount of noise it makes when it wants to be noticed," might apply to much of our industry in Christian work. Attention paid to home duties, or little kindnesses shown to unimportant neighbors (as if anyone could be unimportant)—these commonplace things seem hardly worth while. Why? Are they not very important in God's sight? But men will not notice!

Then there are our quiet times of communion with our Heavenly Father. If we love the praise of men more than His approval, these are apt to be crowded out. Why? Because they don't help forward our ambition. They are secrets, only known to God and ourselves. The people we seek to please will think we are wasting time, "doing nothing!"

I got so many letters lamenting that the writers do not know God, or are making little progress in spiritual things. And yet, if we are prepared to sacrifice the praise of men by doing less showy work, devoting the time gained to prayer and Bible-reading, we cannot fail to make steady progress along the line of a worthy ambition. "No one is good unless he is better," is a saying we cannot deny. The motive we find hard to control to-day, must be a little easier to manage next year, or we are failing. I might almost say, it ought to be easier to-morrow, but our conscious progress is apt to be like the coming of summer, with numerous relapses and many times of apparent standing still.

But let us fight hard for a worthy ambition. To be honest because it is the best policy is to be really dishonest in desire. And such surface honesty is likely to go down entirely when a test comes which seems to show that honesty is—in this particular case—impolitic.

A cloth manufacturer is said to have been accustomed to end his business letters with scraps of religious talk, and one of his customers once remarked: "I wish he would put more religion into his cloth and less into his invoices."

As for keeping the mention of God out of business life, that is neither easy nor necessary; if God is controlling every thought and word and act, the world can hardly fail to notice it—but, in that case, the "cloth" will show the religion. There will be good measure and good quality.

Last night I had the pleasure of hearing an illustrated lecture on the missionary work which is being carried on in the

northern part of our Dominion. When I heard of a missionary walking 180 miles to visit a sick parishioner, or fighting his way through the snow, with the mercury 30 or 40 degrees below zero, to do what he could—through an interpreter—to make the love of God known to a few ignorant Indians, I was sure these men were not spending their lives for the praise of men. When I heard of a missionary spending 52 years in those desolate regions of the North, far from the people he would naturally care to associate with, spending many years in translating the whole Bible into an Indian language, I knew that he had sacrificed the lower

"Are we honest in purpose, honest to God? Or is our honesty a little marketable commodity by which we advance ourselves from one situation to another—a scrap of paper on which is written, 'Behold an honest man, and give him an increase of salary?'"

### Some Letters from Readers.

"Enquirer" thanks all who so kindly sent answers to question in regard to "Eternal Salvation" and "Assurance," which were personally received and ap-

preciated. To any interested in them, I would say there were quite a number, written with earnest sincerity, some of the writers giving their own testimony as possessors of assurance of salvation, along with many scriptural references as to how it is obtained. Among the number given was the 3rd chap. of John's gospel, where we read Christ's own words in regard to these most important questions. And, if there were no others, that beautiful chapter alone contains enough to fully satisfy and meet the need of any sin-burdened souls realizing their lost condition by natural birth. Then, among our Canadian farmers?" carried me back over half a century to the time when my parents went on a farm and to the church-going people of those days in that locality. I well remember the appearance of one of the elders, as he, with a pair of good horses and lumber wagon, brought his family and representatives of three other families with him to church (four or five miles), and some changes that have come during those years. At that time the roads were, in some places, only a narrow road through swamp, rough corduroy, and, on the dry land, a winding course, past the trees and stumps. But times and circumstances change, the farmers all got horses, they also improved the roads as well as the farms. One conveyance came after another, lighter than the lumber wagon, till now it is the rubber-tired buggy. But do the people attend church as regularly as they used to in those early days? At communion seasons there were preaching services on Thursday, Saturday, Sunday and Monday, all fairly well attended, and the National Thanksgiving was observed by a service in the church. Now, at communion time, Friday and Sunday is all they have time for, and on the National Thanksgiving go to ball games, road-races, shooting-matches, etc., where, we fear, is not much praise to God for His goodness to us as a nation. Near to my early home on the farm there was a church when we first knew it, later a new one was

built and paid for, a manse property purchased and paid for, and yet a few years ago I was told by a person who had been there for two years that the congregation were in debt some hundreds of dollars. It appeared to her that they measured their success more by the money they had raised than by the good that was being done, and yet we trust God has many thousands who have not bowed the knee to Baal. I wrote the above some time ago, and have been waiting and wondering if I should mail it to you or not. As I have not seen a reply to your question, I send it on with the hope that there are others who can tell a truly different tale.

A READER.

I have not published the name of the writer of the letter given above, not wishing to draw personal attention to any congregation in particular. If the cup happens to fit any of our readers, I earnestly hope that a great effort should immediately be made to improve the condition of things. As Napoleon said: "We may have been beaten this time, but there is opportunity for a victory before the sun goes down." HOPE.

## The Roundabout Club

### Instructive Entertainments.

Ninety-nine districts out of a hundred have their little entertainments in connection with church or school or club during the winter, and hence ninety-nine districts, one of a hundred, have their annual debate in regard to the precise form which the entertainment is to take. In some places, of late years, the problem has been solved by going back to the old Elizabethan era plan of holding a historical pageant, which may be wholly in pantomime, or may have speeches and recitations introduced, as in the great pageant held in Quebec City during the Champlain Tercentenary, and the church history pageant shown at the Bishop of London's Palace of Fulham last June.

In any case, the benefit is apparent. Those who take part, whether grown folk or children, are compelled to under-



Marston Court School Playing History.

In the picture Sir Francis Drake is seen enlisting volunteer sailors to meet the Armada. (From Toronto Globe.)

for the higher ambition. A picture was thrown on a screen of a young woman who was there at her own expense—even paying her board—to teach a few little black children about Christ. The speaker described how he had once seen her giving rides on her back to some of the little Indian crippled children. Once she nearly lost her life by going into a burning house to rescue one of these. She was picked up unconscious with the child in her arms. She might have done much grander work without enduring the discomforts of the arctic cold, but she was satisfied to pour out all she had to give.



Queen Elizabeth, Sir Walter Raleigh, and Attendants.

Pupils of South School, Invercargill, New Zealand.

with only the prospect of helping some little black children. Could a desire of securing the praise of men give her such endurance and gladness?

If God is saying to you: "Well done, good and faithful servant!" if He will put the stamp of His approval on your work and offerings, then all is well. If He does not approve—then your life is a sad failure, even though you may be giving millions in "charity"—so-called. "If I bestow all my goods to feed the poor, but have not love, it profiteth me nothing." DORA FARNCOMB.

again, in the last verse of the chapter, the clear distinction of two classes, leaving no room for doubt or uncertainty as to the portion of either class, and without mention of a third.

Editor "Quiet Hour":

Dear Madam,—I need not tell you that I am not a letter-writer, but hearing your writings highly spoken of one evening in the post office, caused me to look at Hope's Quiet Hour. The question, "Is interest in religious matters declining

stand the historical application in order to act the part, while those who compose the audience either have their memory refreshed, or are inspired to look up a bit of long-forgotten history, before or after the entertainment. Indeed, it is not hard to imagine that this might be a very satisfactory method of creating an interest in history among school-children, a thing which, very often, is not easily done, as the majority of teachers will testify. As the costumes may be made of such inexpensive materials as cheese-cloth, glazed cotton, and cotton batting, the expense does not seem insuperable. The accompanying illustrations show what may be accomplished in the costume line by the exercise of a very little money and a good deal of study and judgment.

**With the Flowers.**

**Winter Protection for Ornamentals and Roses.**

This is the time of the year to plan for the winter protection of the ornamentals on the lawn, and the roses. Even if a bush or shrub is tolerably hardy, a little protection is of great benefit, and brings the tree out in the spring with greater vigor and strength. A more profuse bloom and greater beauty are the direct result. In the protection of roses I have tried different plans. One winter I took and tied the bushes up into as compact a shape as possible. Then lengths of old stovepipe were pulled down over them, and filled with soil to the top. The winter proved a mild one, and the following spring when the stovepipes and soil were removed, the rose bushes were found to be rotted to the ground level, but the roots were, fortunately, alive. This experiment at protection ended right there. My present system was discovered by accident. Several climbing roses cover a summer-house built of pine slats two inches wide. One winter these roses were given no protection. The following spring they were closely examined, and found to be badly injured. However, wherever a vine was sheltered from the sun's rays by the pine strips, it was found green and vigorous. I then formed the theory that it was not the hard freezing that injured the vines, but the action of the direct rays of the sun shining on the frozen bark. This would cause partial thawing, and the following night the bark would be frozen hard again. Acting on this theory, old boards or coarse canvas were placed in such a manner as to shade the rose canes from the sun's rays. For two years I have had uniform success from this method, and think I have found the most successful method of winter protection. The nature of the covering does not matter so long as it successfully shades the vines. Bush roses may be tied into a compact sheaf and laid down. A couple of pegs will help to hold them in position. A few old boards will then give ample protection. Straw nearly always contains more or less grain, and is liable to gather mice. These are fond of rose bark and destroy many of the canes. For hardy ornamentals, a few inches of strawy manure spread over the roots is a decided benefit. A point well worth noting in wintering shrubs, is the proper ripeness of the wood. If the shrubs are stimulated into strong growth late in the summer by manure, or late cultivation, the new wood will be green and sappy and will be almost certain to winter-kill.

For the protection of bulbs or perennial plants, dead leaves are by far the best, as they do not attract mice as straw will. For the same reason, it is preferable to plant bulbs in September so as to allow the ground to become reasonably solid, and thus give less encouragement to the field mouse.

One year I bought a stock of different bulbs at a "bargain counter" in November, and duly planted them. The following spring they failed to appear, and, digging down to ascertain the cause, I found the earth honeycombed with the tunnels of field mice, who had only left the skins of the crocuses and other bulbs, but the crocuses were their especial favorites. The ground was so loose from the late planting, that they found no difficulty in tunneling.

W. E. WILLIAMS,  
Middlesex Co., Ont.

**Scale on Boston Fern.**

What causes the Boston fern to throw out long feelers, or strands, without leaves on them. Is it advisable to cut them off?  
What is the best treatment for scaly bug on a Boston fern?  
Please answer these questions in above column, and oblige.  
Elgin Co., Ont. BOSTON FERN.

Do not cut off the runners. For scale, use lemon oil, or fir-tree oil, applying with a brush stiff enough to remove the insect after the application has done its work. Use frequently until the scale no longer appears.

**For Housekeepers.**

When renewing your own subscription, send us subscriptions for one or more of your friends, and receive for your trouble one of the following:

1. One kitchen set consisting of bread knife, butcher knife, sharpening steel, cake-beater, paring knife, and griddle-cake turner. Given to every present subscriber who sends one new subscription to "The Farmer's Advocate" for one year, at \$1.50.
2. Three pairs scissors—cutting shears, embroidery scissors, and buttonhole scissors—to every present subscriber who sends us one new subscription, as above.
3. One 40-piece tea-set, handsome Austrian china, dainty pattern—to every present subscriber who sends us four new subscriptions.

Kindly state which of the above you prefer when sending in subscription.

**Hospital for Sick Children**

The Hospital for Sick Children, College street, Toronto, is not a Toronto charity; it is Provincial. Last year it had in its cots 1,155 patients, from 267 places in the Province. Sixty-five per cent. were children of poor people, who could not afford to pay. Sixty-nine cases of club feet were treated last year, with a result of 67 perfectly corrected. Contributions are necessary that the good work be kept up. Please help. Send contributions to Mr. J. Ross Robertson, Hospital for Sick Children, College St., Toronto.

**The "Farmer's Advocate" Fashions.**



DESIGN BY MAY MANTON.  
6415 Misses' Blouse.  
6421 Misses' Skirt.  
Age 14 to 16 years.



DESIGN BY MAY MANTON.  
6465 College Girl's Blouse.  
6472 Misses' Straight Plaited Yoke Skirt.  
Age 14 to 16 years.

Price of above patterns, 10 cents for each number. Kindly state number and age when ordering. Address: Fashion Dept., "The Farmer's Advocate," London, Ont.

**The Beaver Circle.**

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

Dear Boys.—This time I am only going to give you the result of the Picture Competition so far as it concerns the younger boys of our Circle. Last time it was "Girls first!" and this week it is "The younger ones first!" You see, we have not enough space to print all the compositions—as it is, some of the prize ones will have to be left out—so I am sure the older boys will be chivalrous enough not to mind waiting for their turn.

To-day, then, we will consider only the work sent in by (1) those aged 12 and 13. (2) Those aged 9-11, inclusive. The Prize List is as follows:  
Age 12 and 13.—Miller Parks, Thomas Mann, Talmage Nixon, Fawcett Eaton, John Gowanlock. Age 9-11.—Vernon Augustine, Gordon King, Reggie Patterson, Wilbert Kelly.  
Honor Roll.—Eldon Hunsberger, Ernest Crawford, Maurice Phillips, Ernest Richardson, Norman Bancroft, Clair Smith, Milton Lowes, Leonard Condy, Clifford Coon, William Badger.

**Some of the Prize Compositions.**

**A Wounded Deer.**  
One cold November morning as my fawn and I were sunning ourselves on the

slope of a hill near a lake, I looked up and saw a small column of smoke rising out of the valley below us, and knew at once that it belonged to men, for birds and animals never use fire.

My first thought was to get my fawn where he would be safe from danger, and then to defend myself, but before I had time to make any plan of escape, I heard the baying of the hounds at the top of the hill where we had been feeding in the morning, and knew that they were on my trail. I looked at my fawn lying in the bush, and then ran towards the dogs who caught sight of me just as I turned for the lake, but running down the bank I managed to gain the water's edge just before they were upon me.

But to my amazement, I saw a boat at the other end of the lake coming towards me. I seemed to get strength at this moment and gained the other side, but as I was climbing up the bank, a sudden noise behind caused me to stop, and a terrible pain in my shoulder made me shudder. I fell, but again rose to my feet, and ran through the bush around the lake where my fawn was lying. Here I fell, quite exhausted from pain.

I learned afterwards that the dogs had crossed the lake and lost the scent, so Good Providence had preserved me from their wicked intent.

I am sure if men and boys knew how we suffer for their amusement, the pleasures of the hunt would soon cease, and even the Government would take measures to protect us rather than allow us to be hunted and shot as undesirable inhabitants of the forests.

THOMAS C. MANN (age 12).  
Renfrew, Ont.

**The Wounded Bird's Story.**

One bright May morning when the sun was shining and the air was filled with the sweet perfume of the lovely flowers which are in bloom at this time of the year, the birds were all very busy building nests for themselves to lay eggs in and hatch out little birds to fly about and fill the air with sweetest music.

I was one of the many busy birds. My name is the robin. I was flying here and there hunting for straws and long hair and such things to make my nest. How proud I was of it when it was finished and four little pale-blue eggs lay side by side in this snug nest!

I then sat on the eggs, and in a few weeks four little birdies were there with wide-open mouths to be fed. How gladly I worked to feed my birds, of which I was so proud.

I had built my nest in a maple tree near a farmhouse, and in the next field was an orchard, and the cherries were just ripe.

As I was hunting food for my birdies, I happened to see a nice, fat bug, on a branch of one of the cherry trees, so, of course, I flew in the tree after it.

Just at this time the farmer was coming across the orchard with his shotgun. He saw me in the tree and said to himself, "There is a robin in my cherries. I will soon stop you eating what is mine." He shot at me, and hit me in the wing. With a cry of pain I fell to the ground and lay there for some time. I started to go back to my nest. I flew in short flights along the ground, stopping to rest every few feet. At last I reached the tree where my nest was and tried to fly up to my birdies. I could hear them crying for me and for food, but I fell to the ground again. This I tried three times, only to find I could only go a few feet and fall back each time. I was very weak, for my wing was broken, and it was bleeding, also.

I lay there all night on the ground at the foot of the tree. Just as the sun was coming up in the morning, I heard my little birdies crying for the protection of my wing, and then they stopped, for they were chilled, and died for want of food, and of cold. So the farmer who shot one bird, killed four little innocent birds as well.

MILLER A. PARKS (age 12).  
Halston, Ont.

Glad to hear that you know that robins eat bugs as well as cherries. Men who have studied all about it by observation, say that the fruit and grain saved by the robins eating insects, more than makes up, a hundred times over, for the cherries they eat.



**I**f your baking goes wrong, investigate—find the cause. Look to your stove, your yeast, your baking methods.

If you succeed in pinning the trouble down to the flour—then take up the flour question in dead earnest.

Consider that flour, to be successful from a baking standpoint, must be *fine* to produce light bread or pastry, *pure* to make that bread or pastry wholesome, and *rich* in nutriment to make it nourishing.

## Ogilvie's Royal Household

has these three qualities in the greatest degree.

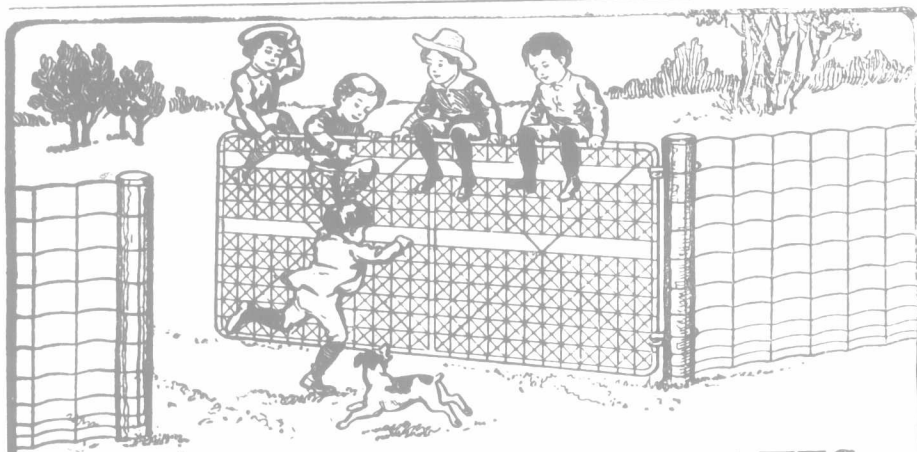


Ogilvie's Royal Household is *milled* by the most modern methods, and made only from *Manitoba Hard Wheat* which contains the highest percentage of nutriment.

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20

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It's no longer necessary to look older than you are or than you feel. We've got one of the finest and cleanest preparations for gray or faded hair made. Our **PRINCESS HAIR REJUVENATOR** restores gray or faded hair (from one-third to one-half gray) to its original color in 10 days; it is neither greasy nor sticky; contains no injurious ingredients; is clear as water and perfectly harmless.

Superfluous Hair, Moles, Warts, Red Veins removed permanently by our reliable method of antiseptic electrolysis. Satisfaction assured. Booklet "E" and sample of hair rejuvenator mailed free.

**HISCOTT DERMATOLOGICAL INSTITUTE**  
61 College St., Toronto. Estb. 1892.

### A Rabbit's Story.

Dear Puck,—I am a little rabbit, and am going to tell you what a time I had one day last week when I nearly lost my life. I live in a swamp with several holes near-by. I came out of my hole one day to sit in the sun, and a man came along with four dogs and a gun. I ran and the dogs ran. The man shot at me, but missed me. The dogs chased me into the bush, but I ran faster than they, and so got away from them. I rested for a while, but, by and by, the dogs found me again, and away I went. I ran and ran till I began to get very tired and scared, but just then I came to a big brush-pile. I thought I was safe at last, but the man came up and started poking sticks into it; then he got on top of it and tramped around on it, but I would not come out. At last he set fire to it, and when it got pretty hot I had to come out, but the dogs did not see me and so I got quite a start. The man saw me and shot at me, and I could hear the shot whizz past my ears, and I tell you I went some. I dodged into a rail-pile just as one of the dogs almost had me. I knew there was a hole quite close to this rail-pile, and if I could only get there I would be safe. The man came up and started moving the rails, and at last I ran out, and the man shot me in the leg, but I got to the hole before the dogs caught me. I could hardly breathe for a while, and then my leg began to get very sore, and I did not get outside for two or three days. My leg is better now, but whenever I see a man and dog coming, I get into a hole as quickly as I can.—BUNNY.

TALMAGE E. NIXON (age 13).

Arva, Ont.

### Tale of a Fox.

I am a fox who lived in a den on a sandy sidehill in a leafy woods. At the bottom of my den I had a snug nest, made of soft leaves, and hair from my own body. In this nest I had five pretty little babies, who looked like little yellow balls, with sharp-pointed noses and cunning, bushy tails.

One lovely spring morning, while my happy family and I were sunning ourselves on the sandy bank, I heard in the distance the deep baying of a hound. As the sound came nearer, I told my little ones to run and hide at the bottom of the den, and be sure and stay there until my return.

With a quick leap, I started and ran in the direction of the sound, and just as I was springing over a log, there was a sharp crack of a gun, and a bullet whizzed just over my head. I knew that I had been seen by the huntsman who owned the hounds, so, though unhurt, I started to limp along on three legs in a direction away from my home. With a loud cry to his hounds, the huntsman gave chase, and soon the woods were ringing with the loud baying of the hounds as they struck my trail. Then I knew that my life depended on my speed.

After running many miles, my throat was parched and my tongue hanging out, and my tired legs would hardly carry me over the logs, but I knew if I stopped for a moment the hounds would be upon me and tear me to pieces. Just as I was ready to drop, I came to a stream of water, and as I knew of some large rocks ahead where I could hide, I thought I would soon be safe. I ran down the shallow stream, lapping up water as I went, knowing that the hounds would here lose the scent. Soon I came to a leaning tree just below the rocky ledge, and with a quick spring I was upon it, and made a dash for a small opening in the rocks.

But again came the crash of a gun, and I felt a sharp pain through my body, and, as I tumbled through the opening in the rocks, I knew my back was broken. Soon the hounds were on the spot, and the noise was fearful, as they tore at the opening in the rocks and their master urged them on with loud shouts, while I lay trembling below.

But, at last, seeing that they could not get at me, the hunter called off his dogs and started for home, where his little boy would run to meet him, happy at the return of his loving parent, who would tell him what fine sport he had chasing and shooting a crafty fox, while here I must lie parched with thirst and writhing in pain, until death comes to my

relief, while my little ones, whining from hunger, wait in their home for their parent, who will never more return.

VERNON C. AUGUSTINE (age 11).  
Aughrim, Ont.

### The Fox's Story.

I lived in a hollow log with my babies, and we were very happy, but one day as I was searching for dinner a long distance from my home, I heard the howl of some dogs. In another minute I heard it very distinctly, for they had got scent of my little ones, and I began to be very much afraid for fear they would harm them, but pretty soon they were on my track, and I began to look for a hiding-place, where I might get away from them.

I began to get pretty well frightened and ran away. Pretty soon I could see the dogs at a far-off distance, and I kept on running till I came to a lake, and thought that I might swim across onto a little island; but when I got to the edge of the lake I saw some men in a boat. One of them was rowing, and the other was watching for geese and ducks with a gun, so I turned to go back, and as I landed at the shore, I saw the huntsman and his four dogs and the boy coming. The huntsman took aim and I began to play some tricks on the dogs. At last I got wounded on my fore leg, and it made me lame, but I could still run a little, so I ran along the bank and at last I came to a spot in the lake where it was narrow, so I jumped in and swam for my life, but before I got to the other side the man with the gun shot me, and I began to think of my children, and who would look after them, as I was seriously hurt, and knew that I would die. But I knew that hunters do not care how much they make poor dumb brutes suffer, and as I lie dying, my last thoughts are for my babies.

GORDON KING (age 11).

Hickson, Ont.

Dear Puck,—We two robins were sitting on a branch of a tree the other morning chattering merrily together, when I looked round and saw a man with a gun and four dogs. The man was just cocking his gun. What were we going to do? We hesitated. Now the man was taking aim! He pulled the trigger, and the shot broke my wing and killed my mate. I suffered awful agony from my broken wing. Our nest was near-by, and I could see the baby robins opening their little mouths for food. What could I do? The pain from my broken wing was nothing compared to the awful agony I felt from not being able to supply the family with food, and feel that they must starve.

REGGIE PATTERSON (age 10).

Rodney, Ont.

## The Ingle Nook

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

Dear Chatters,—A whole host of interesting letters have been held over, with very great regret. The reason why?—Simply this, that the fresh-air question is "seasonable" now that winter is here, and some people are so likely to seal up their homes. I had written a screed on the subject, and to-day an article on Tuberculosis was handed me. Here are the two of them:

### Forty-two Years Ago.

There is an old country house—nearly a hundred years old—near this city. It has many rooms, and in some of them books and papers have been accumulating for nearly half a dozen decades. The other day I picked up from among them an old "Scientific American," dated 1863, and in it found the following paragraph on "Ventilation":

"Typhus and putrid fevers, consumption, scrofula, delicate health, headaches, and cutaneous, bilious and nervous attacks are caused by inspiring vitiated air. About one-fourth of the annual



deaths in Great Britain are caused by consumption, and nothing so soon diseases the lungs as inhaling vitiated air. God has decreed that a certain portion of oxygen shall suffice for the aeration of only a fixed and determinate quantity of venous blood. If we adapt our circumstances to this law, we reap our reward in comfort and health; whereas if we transgress it, and persevere in breathing an atmosphere containing less than the requisite quantity of oxygen, and more than the usual quantity of carbonic acid, we have no more right to expect to enjoy health, energy, activity of mind and body, than to expect a fire to burn without air, or a fish to live out of water."

Forty-six years ago, at least, then, and probably long enough before—I have not the statistics—the magazines and doctors were preaching the doctrine of fresh air. During all the time since their efforts have been unremitting, and yet there are people still, and many of them, who never think of letting the fresh air of heaven sweep through their homes every morning, and who keep their bedroom windows all but hermetically sealed for the winter.

"Draughts give me cold," says one. Well, then, do not sleep in a draught; put up a screen.

"Sleeping in a cold room gives me cold in the head," says another. Then put on a nightcap.

"But I should freeze!" shivers a third.

Put on an extra blanket, and, if necessary, a pair of loose knitted bedstockings. You will really be the warmer for keeping the window open, for the oxygen of pure air itself sets up a combustion in the body that causes heat. Of course, if the temperature of the room is very low, sufficient coverings, preferably light-weight woollen ones, must be used to ensure that the bodily heat is not too rapidly dissipated.

Unquestionably, living night or day in impure air makes the majority of people ill, sooner or later. Others, with constitutions of iron, may not develop actual disease, but they would be brighter, happier, and more capable, if they persisted in breathing pure air. When a room in which people live is closed, the oxygen is consumed by the process of breathing, and a poisonous gas, carbon dioxide, or carbonic acid gas, is produced. The only way to get rid of it, and ensure a fresh supply of oxygen, is by opening the room somehow, continually, or at frequent intervals, to the free circulation of air from outdoors. If a system of ventilation has not been built in with the house (and, even then, as a rule), doors and windows must be called into requisition for the purpose. Otherwise, the inmates must face the consequences.

**A Word from P. E. I. on the Tuberculosis Question.**

In view of the alarming increase of tuberculosis during late years, many of our philanthropic citizens are making efforts to arrest the progress of this mottled-headed disease. An Anti-tuberculosis Society has been organized in the Province of P. E. I., and also some subordinate societies have been formed in Queen's and King's Counties. They are all doing good work. There is also a dispensary in the city of Charlottetown.

Dr. Potter, of Ottawa, lectured in this city on November 17th. His subject was "Tuberculosis." He stated that 150,000 persons die annually in the United States from this disease, 12,000 in Canada, and 200 in P. E. Island. He said that consumption is infectious, and that the infection may be conveyed from man to man. Good nourishing food, rest, and fresh air, are absolutely necessary. He suggested the building of a Sanatorium in this Province.

Certainly, it is much easier to give advice than to induce people to carry those suggestions into practice. Many who are intelligent enough to "know the right," will still, with obstinacy, "do the wrong purpose." Habits are hard to change. Although we are all aware of the vast importance of breathing pure air, yet, when fall comes, the large majority of people put on outside doors and windows, barring out the fresh air as if it were their worst enemy; when, in reality, it is a friend indeed. Many houses are never ventilated during the winter season, and the inmates are constantly breathing foul air when indoors. They

pile on heavy furs and go out for a drive sometimes, for they don't feel like walking with so much clothes on. When they come in they feel chilly and hug the hot-water pipes, or stand on the register, or toast their feet in the oven. The foul air in the house makes them chilly. If they would dress lightly, and go out for a brisk walk every morning when the weather is fine, and take large doses of the bracing, frosty air, they would not be likely to need any other tonic. Walking is excellent exercise. Shanks' mare should be more frequently used. I cannot imagine why some people are so afraid of cold air. Many have been cured of consumption by sleeping out of doors. People should always sleep with their bedroom windows open all night, and practice deep breathing. With plenty of warm blankets on the bed, there is no danger of catching cold. Foul air will give one a cold, but pure, fresh air—never! Surely prevention is better than cure. Here is this grand, mighty health preserver, which is free to all, rich and poor. We have only to open our doors and windows to have our lungs strengthened and vitality increased.

Many people who have lung trouble start for the South as winter approaches, believing that a change of climate will cure them, but they are often disappointed. Other things are also necessary in order to effect a cure. When I was in Florida, a man with his wife and three children occupied the room adjoining mine. They cooked, ate and slept in the room, and it wasn't large, either. Rents were high, so the families huddled in together to save expense, and breathed impure air all night. Ventilation was not attended to in that house. Windows were kept closed to keep out the mosquitoes. Room-rent cost from four to eight dollars a week. The weather was nice and warm there in January, and the air out of doors was pure, but there were drawbacks in regard to food. One could not obtain fresh eggs, cream, etc., as we can here in Canada. I missed the cream very much. There are advantages down South, it is true, but there are also disadvantages. Lack of cleanliness is one of great importance.

I will close with a few extracts from the pen of H. F. Achard, M. D., Asheville, in "Life and Health."

"Tuberculosis, like other infectious diseases, is best treated by prevention, which is only possible with a full appreciation of what is to be prevented, and how. In a family where there are consumptive members, these should not have the care of small children, above all, should not sleep in the same bed, not even in the same room, with them. If the mother is consumptive, and cannot employ a nurse, or if the consumptive member of the family must share in the care of the babies, they should be careful to attend to the following "Don'ts," which might easily be multiplied:

"Don't kiss children on the mouth, and don't permit strangers to kiss them at all.

"Don't let children creep on the floor covered with dust, or contaminated with sputum. If you have to spit, use a cup, or a rag which can be burned.

"Don't sweep the floor, or carpet, or rug, with a broom. If you do not have a carpet sweeper, scatter moist tea leaves, and sweep them up. If the floor is bare, wipe it with a moist cloth.

"Don't permit children in a room occupied by consumptives while the beds are being made, or while the room is being cleaned. Any tubercle bacilli deposited in the dust are then disturbed and float in the air.

"Don't permit the baby to have a rubber nipple, or any other kind of 'comforter.' It will fall on the floor and become infected.

"Don't taste the baby's food with the same spoon with which he is fed; use another spoon, and wash it in boiling water. If baby takes the bottle, pour a few drops into a spoon for tasting. Boil bottle and nipple once a day.

"Don't permit your baby to be without a physician's care. If you cannot afford to pay for his services, go to a dispensary, get advice, and follow it."

CHARLOTTETOWN. A. R.

**A Number of Questions.**

Dear Dame Dundon:—How very assuring your writings and replies in "The Farmer's Advocate" are. I take much help



**T**HERE'S no doubt about it. Thousands of farmers have proved and are proving every day that one of the simple, dependable IHC gasoline engines makes and saves more money for them than the best hired man they can get.

Don't let the up-to-date farming ways get away from you.

You can make your IHC engine work when and where and as long as you please. It is something you can own. It is all yours. You don't have to talk to it about getting up early or argue about quitting time. It is always ready and willing—just as well pump a tank full of water after dark as in the daytime. It is ready to start the saw, pump or any other machine going before daylight, if you are.

If you have a full day's work for it at grinding, you will get more out of it than you would get out of a half dozen hired men. It's just the same with all kinds of work. Your IHC gasoline engine will work with all your machines—will push them—keep them going steadily—make them really valuable to you. You have nothing to pay it in wages; no fear that it is growing tired and thinking of quitting you. Its only requirement for its faithful service all day—every day or night—is a small amount of oil and gasoline.

Why not let an IHC gasoline engine be your hired man? There are a dozen ways you can use it. You will have it going at some kind of work pretty nearly every day. Attach it to a power-house and, whenever you do start it going, you know you will get at least as much work out of it as you would get out of two or three men.

The IHC gasoline engine is the latest and one of the greatest real aids to the farmer. You ought to have one for your steady hired man. Thousands are going out on the farms. There are many styles and sizes, from 1 to 25-horse power—an engine for every section and every problem, for all farm uses—vertical and horizontal (both stationary and portable) engines on skids; sawing, pumping and spraying outfits. It also includes gasoline tractors—first prize-gold-medal winners—the best all-round farm tractors.

Call and take the matter up with our local agent in your town. Or, write the International Harvester Company of America at nearest branch house for catalogue and further information.

CANADIAN BRANCHES: Brandon, Calgary, Edmonton, Hamilton, London, Montreal, Ottawa, Regina, Saskatoon, St. John, Winnipeg, Yorkton.

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LOOK FOR THE I. H. C. TRADE MARK. IT IS A SEAL OF EXCELLENCE AND A GUARANTEE OF QUALITY.

**POULTRY AND EGGS**

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

**A FEW** good Single-comb Black Minorca cockerels for sale. Prices right. Jno. Ogram, Listowel, Ont.

**BUFF ORPINGTONS**—100 pure-bred, stout, vigorous cockerels, \$2; yearling hens, pullets, \$1.50 each. Order early. Get choice. Satisfaction guaranteed. Hugh A. Scott, Caledonia, Ont.

**CHOICE** White Wyandotte cockerels. Bred from Russell cock and Martn-bred females; also Rhode Island Reds, cockerels and pullets, both combs. Alex. McTavish, Chesley, Ontario.

**CHOICE** Bred Plymouth Rock cockerels for sale. Prices right. Leslie Kerns, Freeman, Ont.

**EXTRA** good Toulouse geese till Xmas, \$3.00. Turkeys \$4.00. None after Xmas. Robt. Stevens, Petrolia, Ont.

**MAMMOTH** Bronze turkeys and Toulouse geese for sale, also Bred Plymouth Rock cockerels (Pringle and Hawkins strain). All fine large show birds. A. S. Evans, Lambeth, Ont.

**WHITE** Holland turkeys for sale. Toms, \$3.00. Miss Mary Caldwell, Gilchrist, Ontario.

**DRESSED POULTRY**

If any for sale it will pay you to write or ship to **P. Poulin & Co., Montreal,**

and get the top market price. Prompt returns. No commission. Open for any quantity. References: any bar k.

**Maple and Rock Elm Logs Wanted**

300 Maple Logs 10/16 feet long, 22 inches and up diameter small end  
600 Rock Elm Logs 16 feet and up long, 12 inches and up diameter small end.

**The Bradley Co., Hamilton, Ontario.**



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.

**A FINE**, large, well-equipped cheese and whey butter factory for quick sale. Apply to: R. Metzler, Odessa, Ont.

**BIDS** solicited for seven shares preferred stock in International Fence Co., London, Ont. William Holbrook, 66 E 28th St., No. 14, Portland, Oregon.

**FARMERS** wanting help, experienced or unexperienced, should apply to Robert Verity, 57 Simcoe St., Toronto.

**FOR SALE**—100 000 feet iron pipe—good as new—for water, steam, fencing and fence posts, drains, etc. Any size. Write for prices, stating sizes. Imperial Waste & Metal Co., 13 Queen St., Montreal.

**FOR SALE** Angora goat. Will sell Angora he sold. Address or apply to Box A, Canadian, Sarnia, Ont.

**WHY** suffer with chapped and sore hands? Anti-septic toilet cream cures them quickly, also sore lips, chilblains, salt rheum, and all ailments of the skin. Sufficient for one half pint of cream sent postpaid for 25c. Agents wanted everywhere. The Hurst Mfg. Co., Gore Bay, Ont.

**WANTED**—A middle-aged man who understands and has had experience in growing and cultivating of white beans, to take charge of a 200-acre farm in the Province of Quebec. A good farmhouse to live in provided, and no objection is made to a small family. Apply, giving full particulars, to: Farm, The Farmer's Advocate, London, Ont.

**WANTED**—Position as farm manager by a Canadian; married; no family. Thoroughly experienced. No objection in going to the States. Box B, Farmer's Advocate, London, Ont.

**Delhi Tannery** Custom robe and fur tannery. If you have a cow hide or horse hide you want tanned or made into a robe or a fur coat, or have any kind of hides, skins or furs you want tanned, send them to me and have them dressed right. **B. F. REIL, DELHI, ONT.**

**DOG MEDICINE**—Most dogs have worms. And the worms kill the dogs. Get rid of the worms with **VERMICIDE CAPSULES**. Six capsules, 25c. Hundred capsules, \$3. Mailed with free booklet telling all about worms in dogs on receipt of price. **DR. CECIL FRENCH, WASHINGTON, D. C.**

from them, and now come to ask a few questions myself. I have nothing to give, as everything seems to have been sent in, but perhaps the replies to my questions may help someone else. To begin with, (1) I wish to know how to prepare lime water for plants, and how often to apply it to the earth. Do the worms come to the top, or does the lime water drive them to the saucer under the pot? (2) In using gasoline for buffalo bugs, is it necessary to close up the room for a few hours, or do you open doors and windows right away, and allow the air to circulate? What is the best way to apply it to the edges of the room or carpet, without wasting it? (3) When one has guests in the home, which is the proper way for the hostess' part when the guests retire at night? Does the hostess get the bed in readiness and accompany them to their room, or just indicate in some way where they are to go? In the case of elderly people, which is the nicest way to do? (4) I am making rag carpet. Will some of the Nookers express their opinion on red warp as regards wear and color, compared with other colors of warp? If not too much trouble, will someone plan a stripe from the following shades (the plain stripe will be black), dark brown, light brown, black, dark green, light green, white, dark red, scarlet, rose pink, navy blue, royal blue, yellow. I wish to make thirty yards, the amount of yellow and white will be about two pounds each, just enough to shade it a little. (5) "To thine own self be true." Is that quotation from the Bible (in which I cannot find it), or is it from a poet's writings? There is a point in it in which I am undecided. How can we be true to ourselves, and beside it, say, "My grace is sufficient for thee"? Please express yourself on these words. "My grace is sufficient for thee" takes in so much, it seems to me to be dark just at a certain point. Do you not think that it means for us to do all that lies apparently in our power, and then, if we fail, depend on "My grace is sufficient for thee" to carry us through? There is a point in my life that sometimes I cannot understand, but I cannot think that God wants us to stand up against everything without using the strength in us, just for the sake of appearing peaceable.

Well, I thank you very kindly for the trouble I am incurring in presenting these questions. This seems like a long epistle, but it is my first venture, and I have been thinking of writing for some time.

Hastings Co., Ont.

**1. Lime Water for Plants.**—Take a piece of fresh lime as large as a cup and dissolve it in an ordinary-sized pail of water. When dissolved, pour off the clear water and apply to the soil of the plants, pouring on enough to thoroughly saturate it. The lime must be perfectly fresh, as a shaked lime is of no use. Apply once a week for three or four weeks.

2. It is not necessary to close up the room, as contact with the gasoline kills the bugs. There is no way in which gasoline can be saved much in routing these pests; enough must be applied to saturate the carpet, and to go down into the cracks. All cracks in a room likely to be infested, should be filled. The wet-newspaper-and-paste recipe given often in this column, answers very well as a filler. Open doors and windows, and do not permit light or fire near while using gasoline.

3. The hostess may always accompany a lady guest or old people to their room.  
4. Will someone answer?  
5. The quotation is from Shakespeare, Hamlet, Act III., Sc. 1.

"To thine own self be true;  
And it must follow, as the night the day,  
Thou canst not then be false to any man."

I should think that if we would be true to our best selves, we must be dependent, whether conscious of it or not, upon the "divine spark" within us. I think your idea about "doing the very best we can," covers the case pretty well. Do you remember the old couple: "Dear not, but trust in Providence wherever you may be?"

### Treating Linoleum, Cleaning Net Waist, etc.

Dear Dame Durden,—I have long been a delighted reader of your excellent corner, and have received many helpful hints from your interesting correspondents.

This is about the busiest season of the year for women, at least one of the busiest; they all bring their work. How many of the Nookers ever used varnish on linoleum? We varnished ours this year and it looks fine, although the linoleum is about seven years old. It made it look several years younger, and besides, is a great protection, and does not have to be cleaned, which to me is its greatest beauty. Just make a strong sack to slip over the broom and sweep it with this. Occasionally, stubborn, dirty spots, will, of course, have to be wiped off and the spot dried.

Could any of the Ingle Nookers tell me how to clean an expensive net waist without ripping it apart to wash?

We have a large parlor lamp with round burner, and every time we light it, it emits a disagreeable odor. Do you know of anything that would help it?

Did any of you ever make a handkerchief cushion? I purchased a large silkoline kerchief of fancy design, also some heading and narrow ribbon, cut the handkerchief in four, and joined the border edges together with the heading. Then run in the ribbon. I hemstitched the frill of mine, and it made a nice wash cushion.

Here is a delightful recipe for cake filling, of which we never tire: Take the juice and grated rind of one large lemon, one cup of granulated sugar, one whole egg and yolk of another, one tablespoon of butter. Beat up together in basin, and cook until clear, being careful not to let it burn. You will find it delicious.

A DAUGHTER.

Oxford Co., Ont.

To clean the waist, first remove any obstinately dirty spots with soap-bark solution, or white castile soap, let dry, then spread on a smooth, white cloth, and rub well with a mixture composed of three-fourths starch to one-fourth fine salt. Finally, shake this out, rub in some more pure powdered starch, roll up and leave 24 hours, then shake out well, and brush clean.

Net and silk waists may be cleaned very nicely in gasoline. Put through two "gasolines," shaking or rubbing lightly. The cleansing must be done in a room which has no fire or light burning, and the windows open. Do not rub vigorously lest the friction generate enough heat to ignite the gasoline and an explosion might occur.

### Chautauqua School of Nursing.

Dear Dame Durden,—In reading your very interesting department, I see that "Home Girl" asked for some information about the Chautauqua School of Nursing. I am going to take lessons from that school myself very soon. I expect to start with the New Year, as the Christmas work will be over then. Well, Dear Home Girl, this is the address: The Chautauqua School of Nursing, Jamestown, New York.

This is all the information I can give you, but if you write the Chautauqua School, they will send you a book with all the information you need, and if you take up the study, I wish you every success.

Now, I will close, wishing all the Ingle Nookers and you, too, Dear Dame Durden, a merry Christmas and a happy New Year.

A year to be glad in and

Not to be sad in.

A year to be good in and

Not to be bad in.

BLACK PANSY.

### GOSSIP.

#### BLACKS ARE WINNERS AGAIN.

Both at Birmingham and Inverness Fair-Stock Shows, Aberdeen-Venue entries have won the supreme championships, open to all breeds. At Birmingham, it was Sir Richard Camper's steer, Fan of the Burn, 2 years 11 months old, weight 48 cwt., 4 or 22 lbs., while at Inverness it was the heifer, Our Pretty Rose, weight at 23 months, 11 cwt., 3 or 4, exhibited by the Glasgow Producers of Scotland.

## DISPERSION SALE Holstein-Friesian Cattle

To be held on BEAVER MEADOW STOCK FARM, ELMIRA, ONT.,  
FRIDAY, DEC. 31st, 1909.

21 head—5 bulls, 16 females. Bred from noted strains, and for results in building up a herd that had to show profits at the fair.

Sale to commence at 2 o'clock p.m.  
Terms: All sums, \$25 and under, cash. Over that amount, 10 months credit on approved paper, 7 per cent. per annum off for cash on credit amounts.  
Farm 3 miles west of Elmira, G. T. R.; 1½ miles east of Wallenstein, C. P. R.

Geo. G. Class,  
Floralda, Ont.,  
Auctioneer.

R. B. MARTIN,  
ELMIRA, ONT.,  
Proprietor.

## STALLIONS WANTED!

Clyde and Shire, Canadian-bred stallions, from 2 to 5 years old. Must be in good condition. Address:

J. H. Patrick, Ilderton, Ont.

### Leicester Association Meeting.

The twenty-first annual meeting of the American Leicester Breeders' Association was held in the City Hall, Guelph, Ont., on Tuesday evening, December 7th.

C. E. Wood, of Freeman, Ont., the President of the Association, called the meeting to order, and thanked the members for the honor conferred upon him last year in his election as President during his absence. He also called attention to the removal of the U. S. quarantine. The Dominion Government during the past year, through the medium of the sheep sales, have made the market for pure-bred Leicesters of Canadian breeders as good as it has been for some years past. A goodly representation of the 200 Canadian members was present at the meeting. The Secretary's report showed a balance of something over \$200 in the treasury, and the report of the Audit Committee showed the books to be kept in good shape, and that vouchers had been presented for all the moneys paid out. A. W. Smith, M. P., responded to a call for an address, and talked along the line of the value of the Leicesters for crossing on other breeds, stating that he had had opportunity to watch the effects of such crosses, and that there is no breed of sheep that can take their place for producing a uniform type of lambs, and uniform quality of mutton and wool. Requests for grants for special prizes were read from a large number of Fair Associations and individual breeders, but as the amount of cash on hand was limited to the balance shown in the Secretary's report, grants were made only to Winter Fair, Guelph; Provincial Winter Fair, Brandon, Man.; and St. John, N. B.

The following names were selected to be recommended as judges at the 1910 shows: Toronto—C. E. Wood; John Orr, reserve; London—Wm. Douglas, with H. B. Jeffs as reserve; Guelph—James Douglas; Chicago—J. M. Gardhouse; John Orr, reserve.

The officers selected were the same as last year: President—C. E. Wood, Freeman, Ont.; Vice-President—A. Whitelaw, Guelph, Ont.; Secretary-Treasurer—A. J. Temple, Cameron, Ill.  
Board of Directors—James Douglas, G. B. Armstrong, Oliver Turbull, A. W. Smith, M. P., John Marshall.  
Guelph was chosen as the meeting place in December, 1910, and after the appointment of John Orr, Galt, and Wm. Whitelaw, Guelph, as an Auditing Committee, and extending a vote of thanks for the use of the City Hall, the meeting stood adjourned.

### TRADE TOPIC.

VACUUM CLEANER AND WASHING MACHINE. A Vacuum Cleaner, and a combined Washing Machine and Boiler, are advertised in this issue by the Perfect Manufacturing Company, Guelph, Ont. The manufacturers claim for the washing machine that it will do as much work in less time than the best of any other machine of the kind. A vacuum

Cleaners are a great invention. They suck the dirt in, therefore raise no dust, are easily worked, and effective. It is safe to say they will be used in a great number of Canadian farm homes shortly. Send for price list.

### GOSSIP.

#### SALE DATES CLAIMED.

Dec. 23rd.—D. Rife & Sons, Hespeler, Ont.; Holsteins.  
Dec. 30th.—J. W. Richardson, Caledonia, Ont.; Holsteins.  
Dec. 31st.—R. B. Martin, Elmira, Ont.; Holsteins.  
Feb. 2nd and 3rd, 1910.—Combination Shorthorn Sale, Union Stock-yards, West Toronto, Ont.

At the annual meeting of the Board of Directors of the International Exposition, held at Chicago during the week of the show, William E. Skinner, of Denver, manager of the National Stock Show, and general manager of the International Exposition from its inception until two years ago, was chosen president for the ensuing year. The other officers elected are: First Vice-president, A. J. Lovejoy, Roscoe, Ill.; Second Vice-president, Richard Gibson, Delaware, Ont.; Secretary and Treasurer, Mortimer Lavering, Cincinnati; Managing Director, Senator W. A. Harris, Lawrence, Kan.; General Superintendent, R. H. Heide.

### THE HESPELER SALE OF HOLSTEINS.

The attention of breeders, dairymen and farmers generally, is called to the advertisement in this paper of the dispersion sale of 40 head of Holstein cattle, the property of David Rife & Sons, Hespeler, Ont., to take place on December 23rd. In addition to what is stated in the advertisement as to breeding and records, Messrs. Rife write us: "There will be sold one son and one daughter sired by a son of Lantier Jewel Michthilde 3rd, second-prize cow in the dairy test at the Winter Fair at Guelph, whose test for three days was, points 261.79, milk 207.80 lbs., average test 3.9 per cent. The grandam of the first-prize three-year-old will also be sold. This sale should prove a very attractive event to those interested in this great dairy breed."

### ELMIRA HOLSTEIN SALE.

On Friday, December 31st, as announced in the advertisement in this paper, a dispersion sale will take place of the entire herd of Holstein-Friesian cattle belonging to R. B. Martin, Elmira, Ont. The catalogue of this sale, which will be mailed to applicants, shows to those acquainted with Holstein lore, that the animals are richly bred on producing lines, and, as the majority are young, or in the prime of life, there will doubtless be in the sale opportunities for good investments. The stock bill at the head of the herd, and included in the sale, is Dottie Sir Abbecker—1964—, whose sire was Sir Abbecker De Kol 2nd, and his dam, Dottie 2nd Pauline, whose official record at four years old was 694 pounds milk per day, while his grandam, LBY Abbecker, has an official record of 27.28 lbs. butter in 7 days.

One thing that the good horseman watches in the fall is the condition of the colts. Too often good colts lose the chance for a satisfactory season's growth because they are not given proper attention in the fall. Any animal winters a half-caster if it goes into the winter dry feeding period in good condition. The colt that goes into the winter thin, is going to stay skinny all winter, and, of course, he isn't going to grow much unless special attention and feed are given him, and that means time and money. It's a loss to allow a colt, or any other animal, to get thin at any time. It takes more good, high-priced grain to get flesh back on him, than it would to keep two like him for the same time, provided they are in good condition at the start. And, besides, a colt that has been allowed to become thin, and the growth of which has been checked, will never make the horse that he would if he had been kept growing from the time he was born, until he became a mature yearling.



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FOR  
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BUYING my Furs in the raw, dressing and modelling them into handsome Garments in my workrooms SAVES YOU THE MIDDLEMAN'S PROFIT

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KINGSTON, Ont.

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**BETTER THAN SPANKING.**

Spanking does not cure children of bed-wetting. There is a constitutional cause for this trouble. Mrs. M. Summers, Box 821, Windsor, Ont., will send free to any mother her successful home treatment, with full instructions. Send no money, but write her to-day if your children trouble you in this way. Don't blame the child, the chances are it can't help it. This treatment also cures adults and aged people troubled with urine difficulties by day or night.

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**The Golden Dog**

(Le Chien D'Or.)

A Canadian Historical Romance.

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CHAPTER XLIV.

The Intendant's Dilemma.

"Did I not know for a certainty that she was present till midnight at the party given by Madame de Grandmaison, I should suspect her, by God!" exclaimed the Intendant, as he paced up and down his private room in the Palace, angry and perplexed to the uttermost over the mysterious assassination at Beaumanoir. "What think you, Cadet?"

"I think that proves an alibi," replied Cadet, stretching himself lazily in an armchair and smoking with half-shut eyes. There was a cynical, mocking tone in his voice which seemed to imply that, although it proved an alibi, it did not prove innocence to the satisfaction of the Sieur Cadet.

"You think more than you say, Cadet. Out with it! Let me hear the worst of your suspicions. I fancy they chime with mine," said the Intendant, in quick reply.

"As the bells of the Cathedral with the bells of the Recollets," drawled out Cadet. "I think she did it, Bigot, and you think the same; but I should not like to be called upon to prove it, nor you, either—not for the sake of the pretty witch, but for your own."

"I could prove nothing, Cadet. She was the gayest and most light-hearted of all the company last night at Madame de Grandmaison's. I have made the most particular inquiries of Varin and Deschenaux. They needed no asking, but burst out at once into praise and admiration of her gaiety and wit. It is certain she was not at Beaumanoir."

"You often boasted you knew women better than I, and I yielded the point in regard to Angeliq," replied Cadet, refilling his pipe. "I did not profess to fathom the depths of that girl, but I thought you knew her. Egad! she has been too clever for you, Bigot! She has aimed to be the Lady Intendant, and is in a fair way to succeed! That girl has the spirit of a war-horse; she would carry any man round the world. I wish she would carry me. I would rule Versailles in six weeks with that woman, Bigot!"

"The same thought has occurred to me, Cadet, and I might have been entrapped by it had not this cursed affair happened. La Pompadour is a simpleton beside Angeliq des Meisoises! My difficulty is to believe her so mad as to have ventured on this bold deed."

"'Tis not the boldness, only the uselessness of it, would stop Angeliq!" answered Cadet, shutting one eye with an air of lazy comfort.

"But the deceitfulness of it, Cadet! A girl like her could not be so gay last night with such a bloody purpose on her soul. Could she, thank you?"

"Couldn't she? 'Tut! Deceit is every woman's nature! Her wardrobe is not complete unless it contains as many lies for her occasions as ribbons for her adornment!"

"You believe she did it, then? What makes you think so, Cadet?" asked Bigot eagerly, drawing near his companion.

"Why, she and you are the only persons on earth who had an interest in that girl's death. She to get a dangerous rival out of the way—you to hide her from the search-warrants sent out by La Pompadour. You did not do it, I know; ergo, she did! Can any logic be plainer? That is the reason I think so, Bigot."

"But how has it been accomplished, Cadet? Have you any theory? She can not have done it with her own hand."



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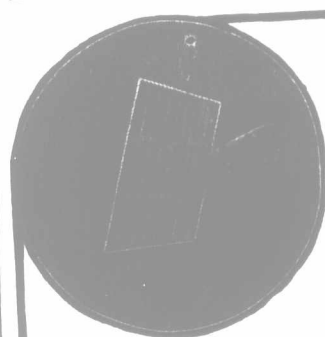


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Puts a stop to cribbing—keeps rats and mice away—can't get out of order—can't wear out because made of steel and wire. Biggest horse-men use them. Supplied from our nearest Branch.

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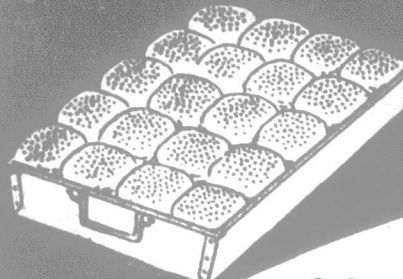
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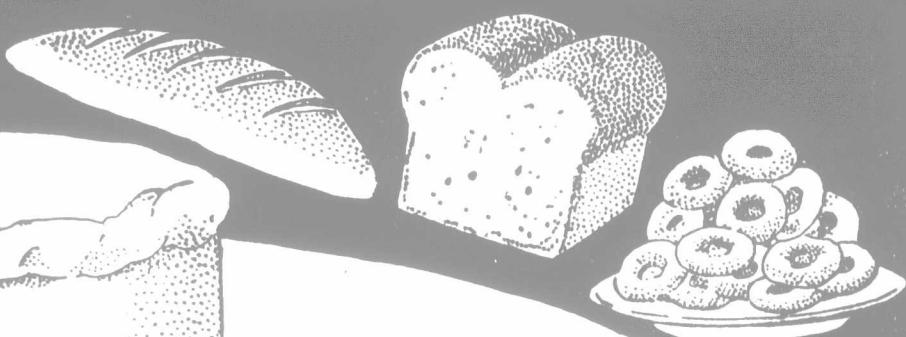





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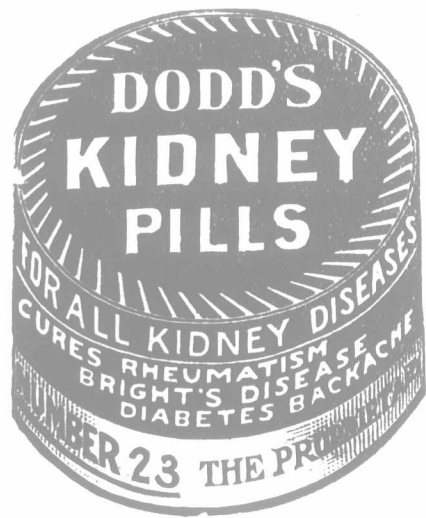
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**JOHN HALLAM, TORONTO**

Mistress—Why, Mary, what are you sitting still for with all the work there is to do?  
New Cook—You told me to follow the rule in the book, ma'am, and it says, "Do not stir while it is boiling."



"Why, there is only one way that I can see. We know she did not do the murder herself, therefore she has done it by the hand of another. Here is proof of a confederate, Bigot—I picked this up in the secret chamber." Cadet drew out of his pocket the fragment of the letter torn in Pieces by La Corriveau. "Is this the handwriting of Angelique?" asked he.

Bigot seized the scrap of paper, read it, turned it over and scrutinized it, striving to find resemblances between the writing and that of everyone known to him. His scrutiny was in vain.

"This writing is not Angelique's," said he. "It is utterly unknown to me. It is a woman's hand, but certainly not the hand of any woman of my acquaintance, and I have letters and billets from almost every lady in Quebec. It is proof of a confederate, however, for listen, Cadet! It arranges for an interview with Caroline, poor girl! It was thus she was betrayed to her death. It is torn, but enough remains to make the sense clear—listen! At the arched door about midnight—if she pleased to admit her, she would learn important matters concerning herself—the Intendant and the Baron de St. Castin—speedily arrive in the Colony. That throws light upon the mystery, Cadet! A woman was to have an interview with Caroline at midnight! Good God, Cadet! not two hours before we arrived! And we deferred starting in order that we might rook the Seigneur de Port Neuf! Too late! too late! Oh cursed word that ever seals our fate when we propose a good deed!" and Bigot felt himself a poor injured and neglected by Providence.

"Important matters relating to herself," repeated Bigot, reading again the scrap of writing. "The Intendant and the Baron de St. Castin—speedily to arrive in the Colony. No one knew but the sworn Councillors of the Governor that the Baron de St. Castin was coming out to the Colony. A woman has done the deed, and she has been informed of secrets spoken in Council by some

Councillor present on that day at the Castle. Who was he? and who was she?" questioned Bigot, excitedly.

"The argument runs like water down hill, Bigot! but, par Dieu! I would not have believed that New France contained two women of such mettle as the one to contrive, the other to execute, a masterpiece of devilment like that!"

"Since we find another hand in the dish, it may not have been Angelique after all," remarked Bigot. "It is hard to believe one so fair and free-spoken guilty of so dark and damnable a crime." Bigot would evidently be glad to find himself in error touching his suspicions.

"Fairest without is often foulest within, Bigot," answered Cadet, doggedly. "Open speech in a woman is often an open trap to catch fools! Angelique des Meloises is free-spoken and open-handed enough to deceive a concave of cardinals; but she has the lightest heels in the city. Would you not like to see her dance a ballet de triomphe on the broad flagstone I laid over the grave of that poor girl? If you would, you have only to marry her, and she will give a ball in the secret chamber!"

"Be still, Cadet! I could take you by the throat for suggesting it! But I will make her prove herself innocent!" exclaimed Bigot, angry at the cool persistence of Cadet.

"I hope you will not try it to-day, Bigot," Cadet spoke gravely now. "Let the dead sleep, and let all sleeping dogs and chimenes be still. Zounds! we are in greater danger than she is! You cannot stir in this matter without getting yourself in her power. Angelique has got hold of the secret of Caroline and of the Baron de St. Castin; what if she clear herself by accusing you? The King would put you in the Bastille for the magnificent lie you told the Governor, and La Pompadour would send you to the Place de Greve when the Baron de St. Castin returned with the bones of his daughter, dug up in your Chateau!"

"It is a cursed dilemma!" Bigot fairly writhed with perplexity. "Dark as the bottomless pit, turn which way

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Our 1909 importation of 20 Percheron stallions, from 1 to 5 years of age, are now in our stables. Up to over a ton in weight. Big, stylish, choke-full of flashy quality, and faultless movers. Prizewinners among them. The best lot ever imported to Canada. All are for sale on terms to suit.

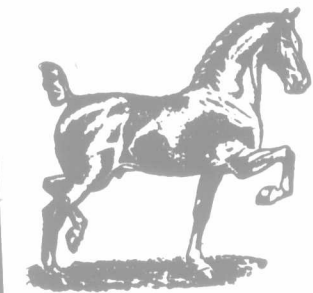
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## T. H. HASSARD'S NEW IMPORTATION!

MY NEW IMPORTATION OF

**Clydesdale Stallions and Fillies**



are now in my stables at Markham, Ont., and, as usual, I have a big range for selection, of a type, breeding and quality seldom equalled, never exceeded, by any previous importation. Call and see them. Phone connection. **T. H. HASSARD, Markham, Ont.**

## Clydesdales and Percherons

To my many friends, and the public generally, I wish to say that in my stables at Weston, Ont., I have my 1909 importation of 10 Clydesdale and 8 Percheron stallions; a lot that for true draft character, faultless underpinning, choice quality and breeding were never surpassed. Terms to suit and prices right.

**J. B. Hogate, Weston, Ont., & Brandon, Man.**  
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## CLYDESDALES AND FRENCH COACHERS

We have still on hand a few choice Clydesdale stallions—all young—that for size, style and quality will stand inspection. We have also a few Clyde fillies—imported and Canadian-bred, and two French Coach stallions. Correspondence and inspection invited. Our prices are easy and terms to suit. Phone connection.

**R. NESS & SON, HOWICK, QUEBEC.**

**Imported Clydesdales** We have a number of newly-imported stallions on hand in our stables in London, Ont., including some very large and heavy horses, several prizewinners. Another consignment, stallions and fillies, sailed Saturday, October 16th, from Glasgow. **DALGETY BROS., LONDON, ONTARIO.**

## Imported Clydesdales!

I wish to thank my many customers for their patronage the last year. I start for Scotland about December 1st for a new importation. I intend to select the best available. Keep an eye out for my announcement on returning. **C. W. Barber, Gatineau Pt., Que.**

## CLYDESDALES and HACKNEYS

We have for sale a few choice Clydesdale mares, imported and Canadian-bred; also some Canadian-bred Clydesdale stallions. Hackney stallions and mares for sale always. Long-distance 'phone. **Hodgkinson & Tisdale, Beaverton, Ont.** G. T. R. and C. N. R.

## MY NEW IMPORTATION TO HAND.

In my new importation of 4 Clydesdale Stallions and 6 Clydesdale Fillies, I have material that will stand comparison with anything ever imported. They have great size, beautiful mould, full of quality, right fashionably bred and perfect action. **JOHN A. BOAG & SON, QUEENSVILLE, ONTARIO.**

**CLYDESDALES** WITH SIZE AND QUALITY. — My new importation is now in my stables. Several of them are up to the ton and over in weight. Their breeding is unexcelled; their type and quality all that could be desired. If in want of the best come and see them. **WM. COLQUHOUN, Mitchell, Ont.** Terms to suit. Phone connection.

**Imported Clydesdales** I have lately landed an importation of 4 young stallions and 5 fillies, whose breeding is unsurpassed. They are the kind the country wants. Big, smooth, stylish, full of quality and straight movers. Will be sold right and on easy terms. **Geo. G. Stewart, Howick, Que.** Phone.

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we will. Angelique knows too much, that is clear; it were a charity, if it were a safe thing, to kill her, too, Cadet!"

"Not to be thought of, Bigot; she is too much in every man's eye, and cannot be stowed away in a secret corner like her poor victim. A dead silence on every point of this cursed business is our only policy, our only safety." Cadet had plenty of common sense in the rough, and Bigot was able to appreciate it.

The Intendant strode up and down the room, clenching his hands in a fury. "If I were sure! sure! she did it. I would kill her, par Dieu! such a damnable cruel deed as this would justify any measure of vengeance!" exclaimed he, savagely.

"Pshaw! not when it would all rebound upon yourself. Besides, if you want vengeance, take a man's revenge upon a woman; you can do that! It will be better than killing her, much more pleasant, and quite as effectual."

(To be continued.)

### GOSSIP.

#### J. W. RICHARDSON'S HOLSTEIN SALE.

J. W. Richardson, Caledonia, Ont., the well-known Holstein breeder, will, on Thursday, December 30th, at his Riverside Farm, sell by public auction, forty-five head of high-class Holstein cattle. Nearly all stock offered are in the Advanced Registry, or trace to A.-R. animals. This is one of the oldest-established herds in Canada, as well as one of the best. The following is a list of stock bulls that have been, or are, in use on the herd: The first was Ruby Gretqui's Baron Witzte, Vol. 1, No. 1, with the distinguished honor of being the first bull recorded in the R. of M. He has now five daughters in the Advanced Registry. The second was Stratford's Blackford Aaggie, No. 2, Vol. 2, with five R. of M. daughters. The third was Victor De Kol Pietertje, No. 3, Vol. 2, sire of eleven R. of M. daughters. His granddam, De Kol 2nd, has a record of 27.57 lbs. butter in 7 days, and her sons have over 200 A. R. daughters. Several of Victor De Kol Pietertje's daughters have made large records. Netherland Aaggie De Kol, giving 96 lbs. milk in 1 day; 21,666 lbs. milk, and over 700 lbs. butter-fat in one year, in the Record of Performance, holding the largest record in Canada. Another daughter is Lady Aaggie De Kol, winner of championship over all in three-days' dairy-test at Guelph last winter, and later was officially tested, producing 27.2 lbs. butter, and 606.13 lbs. milk in one week. The fourth R. of M. bull was Johanna Rue 4th's Lad, R. of M. No. 20. He has 10 R. of M. daughters. His five nearest dams have official records that average 87.7 lbs. milk a day, and 22.96 lbs. butter in 1 week. He is a half-brother to Messrs. Field's \$8,000 stock bull. His dam, Johanna Rue 4th, is a sister of Colantha 4th, the dam of the world's champion, Colantha 4th's Johanna, who gave 27,432.5 lbs. milk, and 1,247.82 lbs. butter in one year.

The main stock bull at present is the massive, richly-bred Sir Pietertje Posch De Boer. He is sired by Sir Pietertje Posch, who has 12 A. R. O. daughters. His dam holds the world's largest official record for heifer, two years old. She gave 87.62 lbs. milk in one day, and 27.07 lbs. butter in seven days. His dam, Kaatie De Boer 2nd, has an official record of 24.28 lbs. butter and 604 lbs. milk in one week; she has two A. R. O. daughters. His first daughter tested in milk went into the R. of M. before she was two years old, the whole going to show that this is one of the most richly-bred bulls alive. He is now five years old, perfectly quiet, but as active and sure as ever he was. He will be sold at the sale.

The second bull now in service is Prince De Kol Posch, a bull of much promise as a dairy sire. His dam, Lady Aaggie De Kol, was winner of championship over all, in three-days' dairy test at the Ontario Provincial Winter Fair, Guelph, last winter, and later was officially tested, giving 606.13 lbs. milk, and 27.2 lbs. butter in one week. She is sired by Victor De Kol Pietertje. He

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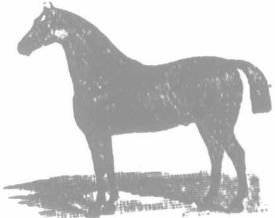


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For the cure of Spavins, Ringbone, Curbs, Splints, Windgalls, Capped Hock, Strains or Bruises, Thick Neck from Distemper, Ringworm on Cattle, and to remove all unnatural enlargements. This preparation (unlike others) acts by absorbing rather than blistering. This is the only preparation in the world guaranteed to kill a Ringbone or any Spavin or money refunded, and will not kill the hair. Manufactured by Dr. Frederick A. Page & Son, 7 and 9 Yorkshire Road, London, E. C. Mailed to any address upon receipt of price, \$1.00. Canadian agents:



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Every farmer, liveryman and veterinary surgeon should have a Climax Speculum for administering medicine or getting at the teeth or mouth of horses and cattle. Everyone agrees that it is more durable, more easy to use, more satisfactory in operation than any other on the market. We are so certain that you will be satisfied with it that we make this special offer. Send us \$6.50 by Post Office or Express Order and we will send you a Climax Speculum at once. If, after 30 days' trial, you are not convinced that it is the best speculum you could have, send it back to us, and we will refund the purchase price. SEND FOR DESCRIPTIVE BOOKLET

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MOON BLINDNESS and all Diseases of the Eye successfully treated with this NEW REMEDY. Money Back if it fails to cure. \$2.00 per bottle postpaid on receipt of price. Visio Remedy Ass'n, Dept. 8, 1833 Wabash Av., Chicago, Ill.

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### GERALD POWELL,

Commission Agent and Interpreter, LILLE, FRANCE Will meet importers at any port in France or Belgium, and assist them to buy Percherons, Belgians, French Coach horses. All information about shipping, banking and pedigrees. Many years' experience; best references; correspondence solicited.



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Fourth large importation within the year arrives November 23rd., which, added to our present stock, offers to our present purchasers the finest collection in America if you want the best horses, horses with bone, quality, size, action, and best breeding, stallions or mares; if you want fair and liberal treatment; if you want lowest prices consistent with good merchandise, visit Oaklawn. Catalog shows the place and the horses. **W. S., J. B. & B. Dunham, Wayne, Ill.**



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**E. T. CARTER & CO.**  
 84 Front St., East, TORONTO, ONT.

CONSIGNMENTS SOLICITED  
 Write For Our Price Lists Issued Regularly  
 WE PAY ALL EXPRESS CHARGES. PROMPT RETURNS.

**Clydesdales Home from the Shows**  
 Intending purchasers would do well to see them before buying. Prices moderate.  
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**ORMSBY GRANGE STOCK FARM, Ormstown, P. O.**  
 DUNCAN McEACHRAN, F. R. C. V. S., D. V. S., Proprietor.  
 Importer and breeder of high-class pure-bred **Clydesdales.** Farmers or ranchmen starting breeding Clydes., pure or grade, specially invited to correspond.

**Clydesdales, Percherons and French Coachers**  
 My 1909 importation of Clydesdale stallions and fillies, Percheron stallions and fillies, French Coach and Hackney stallions are now in my stables. In this lot I can supply the most exacting. Size, style, character, quality and breeding. Will sell on terms to suit.  
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 SHIPMENTS OF RAW FURS SOLICITED. Highest prices, prompt returns, fair assortments. All shipments kept separate until remittance is found satisfactory.  
 We pay all express charges. **CHAS. WECKSLER, Manager.**

**ARTHUR JOHNSTON, GREENWOOD, ONT.**  
 Offers for sale 12 YOUNG BULLS, as well bred and as attractive a lot as he ever offered to his customers. In age they range from 10 to 18 months. Also choice females. All in prime condition.  
**Arthur Johnston, Greenwood P. O., Ont. Claremont Station.** Phone connection.

**A FEW YOUNG BULLS and 20 YOUNG COWS and HEIFERS COMPOSE OUR LIST FOR PRIVATE SALE.**  
**J. A. WATT, SALEM, ONTARIO. ELORA STATION, G. T. R. AND C. P. R. FARM ADJOINS TOWN.**

**SHORTHORNS**  
 Belmar Parc. Calves for sale by our grand quartette of breeding and show bulls. Nonpareil Archer, Imp. Proud Gift Imp., Marigold Sailor, Nonpareil Eclipse. Females, imported and from imported stock, in calf to these bulls. An unsurpassed lot of yearling heifers.  
**John Douglas, Manager. PETER WHITE, Pembroke, Ont.**

**Maple Hall Shorthorns**  
 Are bred on most fashionable Scotch lines, and are of high-class individuality. For sale are 6 young bulls from 6 to 10 months of age. A low, thick, sappy lot. Also 10 yearlings and 10 two-year-old heifers. Show material in this lot. Telephone connection.  
**DAVID BIRRELL & SON, GREENWOOD P. O., ONT. CLAREMONT STATION.**

**ROWAN HILL SHORTHORNS**  
 I am offering 5 young bulls of choice breeding and color, all sired by the champion bull, Royal Chief 65495.  
**R. F. Duncan, Carluke P. O., Ont.**

**Choice Scotch Shorthorns**  
 We are offering several very choice heifers: Duchess of Glosters, Mayflowers, Lancasters, Miss Ramsdens, Stamfords and Broadbooks. High-class show heifers among them. Also a few extra good young bulls.  
**S. F. Johnston & Son, Ashburn P. O., Myrtle Station.**

**IRVINE SIDE SHORTHORNS**  
 5 bulls fit for service—1 two-year-old, 1 yearling and three calves. Three of these bulls are out of imp. cows, and are of the very richest breeding. Cows and heifers all ages. Above bulls will be priced reasonable to make room. J. WATT & SON, Salem P. O., Ont. Elora Station, G. T. R. and C. P. R.

**VALLEY HOME SHORTHORNS AND BERKSHIRES**  
 FOR SALE: Three show bulls and five choicely-bred pure Scotch bulls of extra good milking strains; some show heifers, young cows and heifers of good milking families, and choice Berkshires of both sexes. Our prices very reasonable, considering quality.  
 Visitors welcome. **S. J. PEARSON, SON & CO., Meadowdale P. O. and Sta., C. P. R.**

Subscribe for "The Farmer's Advocate and Home Magazine." \$1.50 per Year in Advance.

**CHURCH BELLS CHIMES AND PEALS**  
 MEMORIAL BELLS A SPECIALTY FULLY WARRANTED  
**McSHANE BELL FOUNDRY CO., BALTIMORE, Md., U. S. A. Established 1886**

**HIGH-CLASS SHORTHORNS**  
 I have on hand young bulls and heifers of high-class show type, pure Scotch and Scotch topped, sired by that sire of champions, Mildred's Royal. If you want a show bull or heifer, write me.  
**GEO. GIER, GRAND VALLEY P. O. AND STA., ALSO WAIDEMAR STA.**

**CALVES** Raise Them Without Milk  
 Booklet free. The Steele, Briggs Seed Co., Toronto, Ont.

will also be sold. The third stock bull in service is Highland Veeman Korndyke. He is sired by King of the Veemans, whose dam is Jessie Veeman A. Her sire, De Kol 2nd's Butter Boy 3rd, has 66 A. R. O. daughters, and 21 proven sons. Jessie Veeman A. has been termed by experienced judges, "one of the finest types of dairy cows now living." She is also the only cow of the breed over 26 lbs. to have six A. R. O. daughters. This bull is not in the sale; we mention this fact because many of the young stock are in calf to him. Nearly all the stock offered are sired by Victor De Kol Pieterje, Johanna Rue 4th's Lad, and Sir Pieterje Posch De Boer. Of the young bulls offered, fifteen in number, many have official backing that will average from 20 to 22 lbs. butter in one week. In the herd are about 30 head, with records of 10 lbs. as two-year-olds, up to 21 lbs. as aged cows. In females offered, 18 are two-year-olds or under, all old enough to be either in calf or in milk, the whole making one of the choicest offerings of Holsteins ever offered by auction in Canada. The terms will be cash, unless other arrangements are made before the sale.

Caledonia is easy of access, being on the Buffalo and Goderich and the Hamilton and St. Thomas branches of the G. T. R., trains arriving at 9.15 and 9.55 a. m., and leaving Caledonia at 6.40 and 7.25 p. m. Special rates, fare and one-third, good for the 29th, 30th and 31st. Special arrangements have been made with the G. T. R. for all trains to stop at the farm.

**QUESTIONS AND ANSWERS. Miscellaneous.**

**COMPUTATION OF MORTGAGE INTEREST.**

A loaned B \$1,000 on a mortgage drawn on January 1st, 1909, for five years, at 6 per cent. interest. The mortgage states that the interest is payable yearly, the first interest due and payable on January 1st, 1910. The mortgage also states that the mortgagor (B) has the privilege of paying off the entire mortgage at any time in sums of not less than \$50 at a time. B desired to pay A \$200 as principal at the end of the first eight months from date of mortgage, and did so.

1. How much interest is A entitled to?  
 2. If B desires to pay off balance of the mortgage, viz., \$800, at the end of two years from date of mortgage, how much interest would A be entitled to?  
 Ontario. J. B.

Ans.—1. Interest on the \$200 ceased upon the amount being paid, and the year's interest payable at expiration of first year would, accordingly, be \$6.  
 2. Interest for the first year having been paid, the amount of such second year's interest would be \$48.

**UNTHRIFTY MARE.**

Three-year-old mare is in good spirits, but is in poor condition, and very long and dry in the hair; is fed two gallons of oats per day (chilled with bran at night).

1. What would you advise me to feed her?  
 2. Would it hurt her to haul lumber this winter? Her weight is 1,050 lbs.  
 3. What is good for cracked hoofs?  
 R. M.

Ans.—1. The trouble is possibly due to teething. It might be well to have her teeth examined by a veterinarian, and, if necessary, treated. You might add to what you at present feed, a handful of ground flax seed in the evening feed. A few carrots daily, if you have them, are excellent. If the mare does not improve soon, and you have reason to think that she has digestive trouble, give her a purgative of 8 drams aloes and 2 drams ginger. Follow up with 1 dram each nuxvomica, gentian and ginger, three times daily.  
 2. No, unless she shows weakness.  
 3. Poultice the hoofs with warm linseed meal, with a little powdered char coal, for two days and nights; put fresh poultice on every eight hours, and then dress daily with the following lotion: One ounce each sulphate of zinc and acetate of lead, two drams carbolic acid to a pint of water. Do not wash the hoofs, if they get wet, rub them dry.

**His Friend Said**

"If They Don't Help or Cure You I Will Stand The Price."

Mr. J. B. Rusk, Orangeville, Ont., writes: "I had been troubled with Dyspepsia and Liver Complaint and tried many different remedies but obtained little or no benefit. A friend advised me to give your Laxa-Liver Pills a trial, but I told him I had tried so many 'cure alls' that I was tired paying out money for things giving me no benefit. He said, 'If they don't help, or cure you, I will stand the price.' So seeing his faith in the Pills, I bought two vials, and I was not deceived, for they were the best I ever used. They gave relief which has had a more lasting effect than any medicine I have ever used, and the beauty about them is, they are small and easy to take. I believe them to be the best medicine for Liver Trouble there is to be found."

Price 25 cents a vial or 5 for \$1.00, at all dealers, or will be sent direct by mail on receipt of price.  
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**MIDDLEBROOK ABERDEEN-ANGUS.** I am now offering for sale three choice young bulls; also a few females, either bred or with calf at foot to Hundred, grand champion Angus bull at Toronto this year. **JOHN LOWE, Flora, Ont. P. O. and Station.**

**At Dominion Exhibitions,** Halifax, Nova Scotia, in 1906; Sherbrooke, Que., 1907; Calgary, Alta., 1908, our Aberdeen-Angus herd won all the champion and grand champion prizes. Out of a possible of 42 first-prizes our herd won 40. We have a good graded show herd for sale. Also single animals, bulls and females. **JAMES BOWMAN, Elm Park, Guelph**

**Homestead Aberdeen-Angus**  
 Some extra good bull calves, 6 to 8 months old; also females all ages. Parties looking for cattle, either sex, should write, or come and see them.  
**WILLIAM ISCHE, Sebringville, Ont. Long-distance Phone.**

**Aberdeen-Angus Cattle**  
 MALES AND FEMALES FOR SALE. APPLY: **Geo. Davis & Sons, Alton, Ont.**

**Maplewood Aberdeen-Angus**  
 Choice young bulls for sale. Address: **A. W. McEWING, Harlock P. O. or Blyth Station, C. P. R. or G. T. R.**

**1854-Maple Lodge Stock Farm-1909**  
 Shorthorn bulls and heifers of extra quality and breeding, and from best milking strains.  
 Leicester's of first quality for sale. Cans furnish show flocks.  
**A. W. SMITH, Maple Lodge P. O., Ontario. Lucan Crossing Sta., G. T. R., one mile.**

**Maitland Bank Shorthorns FOR SALE:** 8 bulls, 6 to 13 months; thick, sappy fellows; some from imp. cows. Also cows in calf, or with calves at foot, by Broadbooks Prince, imp. Also heifers by same sire; prize-winners; bred or being bred to Royal Blossom 75442. They are all of choicest breeding and good milking sorts. Also Broadbooks Prince (imp.) 55002. Prices lowest. Station and Bell telephone a few rods. **DAVID MILNE, ETHEL, ONT.**

**JOHN GARDHOUSE & SONS**  
 Always have for sale a number of first-class Shorthorns, Shires and Lincolns, of both sexes. Drop us a line, or better, come and see for yourself.  
**HIGHFIELD P. O., ONTARIO. Weston Sta., G. T. R. & C. P. R. Long-distance phone in house.**

**Geo. D. Fletcher, Binkham P. O., Ont.** offers four choice Shorthorn bulls 10, 13 and 18 months old, with both breeding and quality for herd-heads. Prices easy. Stock bull, Benache (imp.) 69954; also Shorthorn females and Yorkshire sows. Erin shipping station, C. P. R.

QUESTIONS AND ANSWERS. Veterinary.

TUBERCULOSIS.

For several months my cow has had a shortness of breath and a cough. She eats well, and is in fair condition. Would her flesh be fit for use? G. H. S.

Ans.—The symptoms strongly indicate tuberculosis. There is no definite means of diagnosing except by the tuberculin test by a veterinarian. If she is tubercular, her flesh is not fit for use, and there is no cure. V.

INDIGESTION.

I bought a mare at a sale, and next day I noticed her rifting wind off her stomach. In a week, she had an attack of indigestion. She got over this, but still riffs wind. F. P.

Ans.—Give her a purgative of 8 drams aloes and 2 drams ginger, and follow up with 1 dram each of gentian, ginger and nux vomica three times daily, and add to her drinking water one-fifth of its bulk of lime water. As she is predisposed to indigestion, it may be necessary to continue the powders and lime water. V.

Miscellaneous.

RE STEEL SILOS.

Some time ago, I think I saw an advertisement in your paper of a firm building steel silos, but cannot find the paper now to get the firm's address. H. W.

Ans.—Waterous Engine Works Co., Ltd., Bramford, Ont., is the address of the firm referred to.

FERTILIZERS FOR OATS ON LIGHT, SANDY SOIL.

1. What kind of a commercial fertilizer would you recommend for use on light, sandy ground? The field is to be sown in oats, seeded down with timothy and clover next spring?
2. State where the fertilizer may be procured, and cost.
3. Also state quantity required to the acre, and the cheapest way it may be applied. SUBSCRIBER.

Ontario.
Ans.—1 and 3. A suitable commercial fertilizer for oats on a light, sandy soil, would be:

- 120 lbs. nitrate of soda.
250 lbs. acid phosphate.
100 lbs. muriate of potash.

The acid phosphate and muriate of potash ought to be thoroughly mixed together and sown broadcast before seeding, but the nitrate of soda, on account of its great solubility, should not be applied until the leaf blades appear above the ground. This fertilizer is calculated to increase the yield of oats and straw, besides exercising a beneficial effect on the clover and timothy during the first and succeeding seasons.

2. The above fertilizers may be procured from W. A. Freeman Co., of Hamilton, Ont.; Nitrate Agencies Co., Toronto, Ont., or Cold Storage Co., St. Catharines, Ont. The cost of the fertilizers will depend, to some extent, on the amount purchased, but the above mixture would cost, approximately, \$8 per acre. B. L. F.

At Norwich, England, the first of the British Fat-stock Shows of the season, the championship in the cattle classes went to the cross-bred Aberdeen-Angus-Shorthorn heifer, Danesfield Rose, bred and shown by R. W. Hudson. Her weight at the age of 2 years 11 months 5 days, was 16 cwt. of (presumably 112 lbs.) 1 qt. 23 lbs. The reserve champion was the same exhibitor's Aberdeen-Angus steer, Tochnical Style, whose weight at 2 years 10 1/2 months was 17 cwt., 3 qr. 20 lbs. The reserve for the best steer was the Shorthorn, The Gentleman. The championship in the sheep section went to H. E. Smith's Suffolk yearling wethers, Mr. Adame's South-down lambs taking the reserve, and the special as the best pair of lambs.



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THIS IS THE LATEST SENSATION AND GREATEST TRIUMPH IN THE GREAT MOVING PICTURE ART.

It is a New Invention that you can carry in your pocket and show your friends instantly, day or night, either once or a hundred times, and without a machine, curtain or light. It is the first successful moving picture ever taken of a World Champion Horse in his wonderful burst of speed. The original film contains

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and every picture shows the King of all Horse Creation as plainly as if you stood on the track and actually saw Dan Patch 1:55 in one of his thrilling speed exhibitions for a full mile. 2400 distinct moving pictures taken of Dan in one minute and fifty-five seconds means twenty-one pictures taken every second all of the way around the entire mile track from the back seat of a high power automobile. You can see Dan shake his head to let his driver know that he is ready for a supreme effort and then you can watch every movement of his legs as he flies through the air with his tremendous stride of 29 feet. You can see his thrilling finish as he strains every nerve to reach the wire, you can see his driver dismount and look at his watch while thousands of people crowd around, you can see his caretaker force his way through the crowd and throw a beautiful woolen blanket over Dan to prevent his catching cold and then you can follow him up the track before the madly cheering multitudes. As a study of horse motion it is better than the actual speed mile because you can see Dan right before you for every foot of the entire mile. When first shown to the public this marvellous picture caused people to stand up all over the theatre calling "Come on Dan"—"Come on Dan."

This remarkable moving picture is the most realistic and the most thrilling ever presented to the public.

We have taken a part of these 2400 wonderful and sensational pictures and made them into a Newly Invented Moving Picture that you can carry in your pocket and show to your friends at any time, day or night. It does not need a machine, it does not need a curtain and it does not need a light. It is all ready to show instantly either once or a hundred times and creates a sensation wherever shown.

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YOU MUST ANSWER THESE 3 QUESTIONS IF YOU WANT THE MOVING PICTURES FREE

1st. In what paper did you see my Moving Picture Offer? 2nd. How many head each of Horses, Cattle, Sheep, Hogs and Poultry do you own? 3rd. How many acres of land do you own or how many acres of land do you rent?

I will not mail this wonderful moving picture of Dan Patch 1:55 free unless you are a Farmer, Stockowner or Poultry Raiser and unless you correctly and honestly answer the three questions.

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In silver or stamps to pay postage, etc., on Moving Pictures. I will mail this wonderful Moving Picture of Dan Patch 1:55, the fastest harness horse the world has ever seen,—to you if you send me Twenty-five Cents in silver or stamps even if you do not own any stock or land.

It costs about \$2700.00 cash to have one of the original pictures taken and reproduced. Write me to-day so that you will be sure to secure one before my supply is exhausted. Address E. B. SAVAGE, Proprietor of

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Largest Stock Food Factories in the Entire World

Cash Capital Paid in \$2,000,000

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275 BURLINGTON SHORTHORNS 275

4 IMPORTED SCOTCH SHORT-HORN BULLS. 12 BULL CALVES, 9 TO 16 MONTHS OLD.

All choice yearlings — 2 reds and 2 roans. All from imp. sire and a number from imp. dams.

30 CHOICE YOUNG COWS AND HEIFERS. 30

All belonging to noted Scotch families, and mostly from imported sires and dams.

Quality, pedigree and prices will please you. Farm 1/4 mile from Burlington Junction station.

FRED. BARNETT, Manager. J. F. MITCHELL BURLINGTON, ONT.

Long-distance telephone.

We are offering 15 choice young

SHORTHORN BULLS

of serviceable age. Among them are high-class herd-headers. We can supply females of all ages. Farms close to Burlington Jct., G.T.R.

W. G. PETTIT & SONS, FREEMAN, ONT.

INVERNESS SHORTHORNS

I can supply Shorthorns of all ages, with richest Scotch breeding and high-class individuality.

W. H. EASTERBROOK, Freeman, Ont.

Imp. Scotch Shorthorns

—When looking for Shorthorns, be sure to look me up. Young bulls fit for service, and females all ages; bred in the purple, and right good ones. A. C. Pettit, Freeman, Ont.

Maple Leaf Shires, Shorthorns, Hampshire Hogs

1- and 2-yr.-old Shire stallions, females from yearling fillies up; Shorthorns, both bulls and heifers; a choice lot of young Hampshire pigs, both sexes beautifully belted.

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Breeds SCOTCH SHORTHORNS Exclusively.

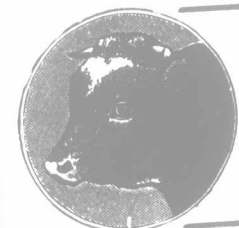
Twelve of the most noted Scotch tribes have representatives in my herd. Herd bulls: Scottish Hero (imp.) = 55042 = (90065) 295765 A. H. B.; Gloster King = 68703 = 283804 A. H. B. Young stock for sale. Long-distance phone in house.

Geo. Amos & Sons,

MOFFAT, ONTARIO.

For Sale: Seven bulls, some of them show bulls, most of them from imported sires and dams. Write us, or call and see us before buying.

Moffat Station, 11 Miles East of City of Guelph, on C. P. R.



30 HEIFERS AND 29 BULLS

PRESENT OFFERING.

Bred right, made right and at prices to make you feel right. Come early and get your choice. List of these, with catalogue, will be mailed to those who ask for them.

H. CARGILL & SON, CARGILL, ONT.

SHORTHORNS

Nine bulls from 8 to 20 months old, reds and roans; 10 yearling heifers and a few cows. Will sell very cheap to make room in stables.

CLYDESDALES

One pair of bay mares and one dark brown, heavy draft and two spring colts.

JAMES McARTHUR, Gobles, Ontario

Shorthorn Cattle

AND LINCOLN SHEEP.

Females of all ages for sale, of the thick-fleshed, low-down kind, that have been raised naturally, neither stuffed nor starved. Twenty-five Lincoln ewes, bred to our best imported stud ram, also a few choice yearling rams. Prices very reasonable for quick sale.

J. T. GIBSON, DENFIELD, ONT.

H. SMITH, EXETER, ONTARIO.

Scotch Shorthorns

Extra choice young bulls and heifers for sale. Write for what you want. Farm adjoins town.

RUSH'S U-BAR STEEL STANCHIONS

are swinging stanchions. See the comfort and freedom they give cattle. Are strongly made to stand roughest usage, and save lumber and labor in fitting up cow stables. Saves time in tying cattle, because the latch is easily operated and absolutely secure. Made in five sizes. Write for catalogue and prices.

A. M. RUSH, King St., Preston, Ontario.



HAWTHORN HERD

OF DUAL-PURPOSE

Shorthorns

15 heifers, 6 bulls present offering; bred right; priced right. Come early and get a choice.

WM. GRAINGER & SON, Londesboro, Ont.

Shorthorns for Sale

Choice young bulls. Females, all ages, imp. or home-bred; cows in calf, heifers in calf or open, and heifer calves out of imported dams, and got by the Duthie bull, Sittytan Victor, imported. Address:

JOHN BRYDONE, Milverton, Ontario.

SHORTHORNS AND SHROPSHIRE S.

Young bull, heifers and calves of good type and breeding. Dams all from a milking strain. Shropshire shearing rams and lambs. JOHN RACEY, Lennoxville, Quebec.

Spring Valley Shorthorns.

Herd headed by Clipper Chief (imp.) = 64220 = (94673). If you want to get an imported bull, or a good Canadian-bred one to head your herd, be sure and write, or come and see them. Long-distance telephone.

KYLE BROS., AYR P. O., ONT.

OLD MELDRUM SHORTHORNS!

We are offering three very choice young bulls, old enough for service; also several extra nice heifers. All in good condition, and bred to make money. A. F. & G. AULD, Edon Mills P. O., Ont 5 miles from Guelph.

Scotch Shorthorns

Two red bulls, 12 imp Protector, at low prices. Lincoln and Oxford Down ram lambs, choicely bred, sired by St. Louis prizewinners. McFARLANE & FORD, Box 41, DUTTON, ONTARIO

SHORTHORNS BERKSHIRES

One choice young Lady Fanny bull for sale good herd header; also several young heifers. A few prizewinning Berkshires, both sexes. Write or come and see them. Prices moderate. ISRAEL GROFF, ELMIRA, ONTARIO.



**Bog Spavin**

Cure the lameness and remove the bunch without scarring the horse—have the part looking just as it did before the blemish came.

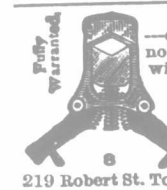
**Fleming's Spavin Cure (Liquid)** is a special remedy for soft and semi-solid blemishes—Bog Spavin, Thoroughpin, Splint, Curb, Capped Hock, etc. It is neither a liniment nor a simple blister, but a remedy unlike any other—doesn't irritate and can't be imitated. Easy to use, only a little required, and your money back if it ever fails.

**Fleming's Vest-Pocket Veterinary Adviser** describes and illustrates all kinds of blemishes and gives you the information you ought to have before ordering or buying any kind of a remedy. Mailed free if you write.

**FLEMING BROS., Chemists**  
75 Church St., Toronto, Ontario

### Mr. A. J. Hickman

Court Lodge, Egerton, Kent, England.  
EXPORTER OF PEDIGREE STOCK OF ALL DESCRIPTIONS. During the winter months the export of cattle of the beef and dairy breeds will be a specialty. Stock ordered is purchased direct from the breeder, and is shipped straight from his farm to port of entry. In no other way can stock be imported so cheaply. Write for terms and references.



**COWS GIVE MORE MILK**  
—cattle make better beef—Bulls are no longer dangerous when dehorned with the

**KEYSTONE DEHORNER.**  
Cuts 4 sides at once—No crushing or bruising. Little pain. The only humane method. Write for free booklet. R. H. MCKENNA  
219 Robert St. Toronto, Ont. Late of Picton, Ont.

### HOLSTEIN CATTLE!

If you are thinking of buying a choice young cow or heifer in calf, come and see our herd. Will sell anything. Have a dozen beautiful heifers safe in calf to Summer Hill Choice Goods (imp.), who has five sisters averaging 29½ lbs. butter in 7 days, and one sister that held world's record as 4-year-old with 31.60 lbs. butter. Write us what you want. We will guarantee everything just as described. Visitors met at Hamilton by appointment.

**D. C. Flatt & Son, Millgrove, Ont.**  
L-D Telephone 2471, Hamilton.

**High-class Holsteins**—Head of herd, Pietje Korndyke Lad. Two nearest dams average 26.09 lbs. butter in 7 days. His sire's dam, Pietertje 22nd, has a record of 31.62 lbs. butter in 7 days. Present offering: 2 heifers, due to calve in April, at a bargain before Dec. 1 to make room; also 2 bull calves by Mannor Johanna DeKol, out of officially-tested cows.

**WM. C. STEVENS, PHILLIPSVILLE, ONT.**  
offers for sale choice young Holstein bulls, from 10 to 12 months old, sired by Sir Mercena Favorite whose dam and sire's dam have average records of 24.60 lbs. butter per week, and 80 lbs. milk per day. Their dams also in A. R. Also choice females for sale. Write for prices.  
F. E. PRITTI, Burgessville, Ont.

### WORLD'S CHAMPION BRED BULL

**Grace Fayne 2nd's Sir Colantha.**  
Sire Colantha Johanna Lad. Dam Grace Fayne 2nd. Average butter record for 7 days of his dam, sire's dam and sister is 32.35 lbs. Average milk for one day of dam and sire's dam is 104 lbs. Choice young bulls for sale.  
M. L. & M. H. Haley, Springford, Ontario.

**Maple Glen HOLSTEINS** For sale: Two 3-year-olds, bred to a son of Brown Bros.' 30-lb. cow, due to freshen next March. Netherland Johanna Mercedes, a 15-70-lb. Jr. 2-year-old, due last of December to King Fayne Segis, a son of world's champion cow. Also two bull calves, from tested dam, born last June, sired by King Fayne Segis. G. A. GILROY, Glen Buell, Ont. Long-distance phone.

### Maple Hill Holstein-Friesians!

Three-year-olds, two-year-olds and yearlings heavy in calf. Also a few choice heifer calves. Visitors met at station by appointment.

### G. W. Clemons, St. George, Ont.

### The Maples Holstein Herd!

RECORD-OF-MERIT COWS.  
Headed by Lord Wayne Mechthilde Calamity. Nothing for sale at present but choice bull calves from Record-of-Merit dams.

Walburn Rivers, Feiden's Corners, Ont.

### HOLSTEINS AND YORKSHIRES

Young bulls for sale from such cows as Snowflake Queen De Kol of Minster, testing 4.8; Queen De Kol, 4.4, and others equally good. Cows giving 12,000 to 15,000 lbs. yearly.  
RICHARD HUNEY, Brickley, Ont. Northumberland Co.

### DON'T

Buy a HOLSTEIN BULL till you get my prices on choice goods from thirteen months down, from best producing strains. "Fairview Stock Farm." FRED ABBOTT, Harrletsville Ont.

### Holsteins

Maple Grove offers a few richly-bred young cows, safely in calf to Sir Abbekerk De Kol 2nd and Mercena's Sir Posch; also young stock sired by above bulls. For description and prices write

H. BOLLERT, Cassel, Ont.

### GOSSIP.

Where dairies or butter factories are, or where the milch cow is a factor for other purposes than the sale of milk as such, the pig is a most useful and profitable adjunct. Upon the skim milk, judiciously used with other and more substantial foods, he thrives, grows and fattens, utilizing a by-product of tremendous volume which, without the pig, would represent little of available value. It is said that the skim milk from the butter factories of New York alone, amounts to nearly a billion pounds in a single year. The use of this skim milk does much to give relief from monotony so common in the hog's feeding, besides adding to the returns from the other or main foods with which it is given, and every hog-raiser is glad to have it.—From Coburn's "Swine in America."

"Heavyweight" in more ways than one is B. Leslie Emslie, Manager the Dominion Agricultural Offices of the Potash Syndicate, and author of a most instructive series of articles on commercial fertilizers, published two years ago in "The Farmer's Advocate." A Scotchman by birth and education, Mr. Emslie is persona gratia to a considerable number of our readers, who will be interested to learn of his prowess in the athletic sport of hammer-throwing. At the Scottish sports, in the 16-pound hammer-throwing contest, held under Caledonian rules, at the Westminster Exhibition in October last, he won a handsome cup by putting the weight 103 feet 8 inches. The second competitor landed the hammer 96 feet 6 inches, while the erstwhile Canadian champion, D. Gillies, fell 5 inches short of this, negotiating 96 feet 1 inch. Though a giant in strength, Mr. Emslie is one of the mildest-mannered of men, and we hasten to dispel a reluctance of any to enter into business relations with so formidable an antagonist as he might prove if provoked to a personal encounter.

### TOBACCO PRODUCTION IN THE UNITED STATES.

While some tobacco is produced in almost every State, less than 1 per cent. of this country's crop is grown west of the Mississippi, Texas being the only trans-Mississippi State in which the industry has gained much importance.

Kentucky leads all the States in tobacco-growing. It produces more than one-third of the United States crop, and about one-ninth of the entire crop of the world.

The tobacco grown in the United States is of two general types or classes, (1) cigar tobacco, and (2) chewing, smoking, snuff, and export tobaccos. In 1908, something more than 150 million pounds of cigar tobacco was grown in the United States, and nearly four times that amount of the other types.

The cigar tobaccos are grown mostly in New England, Pennsylvania, Ohio, and Wisconsin, though there is a considerable and rapidly-increasing production of this type in Georgia, Florida and Texas. The tobacco used for chewing, smoking, snuff, and export, are produced most heavily in Kentucky, Tennessee, North Carolina, Virginia, and South Carolina.

Tobacco production is largely confined to certain clearly-defined districts, each of which produce a special type, and fills a demand for that type. The kind of tobacco grown in particular districts depends mainly on the soil and climatic conditions.

An interesting study of "Tobacco and Districts" has just been completed by the U. S. Department of Agriculture, and the results have been issued in a circular (Statistics, No. 18) for distribution.

### ONE TOO MANY FOR HIM.

A man, who looked to be a giant in strength, brought his meek little wife before the magistrate, charging her with cruel treatment of himself, an uncontrollable temper and an incorrigible disposition.

The magistrate looked the big fellow over suspiciously, and glancing sympathetically at his slip of a wife, asked the husband: "Well, sir, what have you to say for yourself? What business do you follow?"

"I am a lion-tamer, your Honor," was the proud reply.

## Dispersion Auction Sale of Holsteins

AT HESPELER, ONTARIO,

THURSDAY, DECEMBER 23, 1909

40 Head Registered Holsteins,

Also Horses, Pure-bred Poultry, Implements, Barn, and 47 Acres of Land Within Corporation.

Among the Holsteins are 20 cows and heifers in milk, 10 with calves at side. Record-of-Merit cows, with records from 12 to 22 lbs. butter in 7 days. Count Calamity Mercedes, the most prepotent living sire in Canada. Dam's record, 4 years, 23.58 lbs. butter, 7 days; sire's dam 22.1 lbs., testing over 4 per cent. He is sire of champion two-year-old heifer of Canada; record butter, 7 days, 20 lbs; milk, 434 lbs., 7 days; milk, 1 day, 63 lbs. He is sire of two highest testing two-year-old heifers sired by same bull in Canada, their records at two years average: butter, 7 days, 18.69 lbs.; best day's milk, 60 lbs. 20 cows and heifers bred to him of the leading strains, with high official backing; their calves will be valuable. An opportunity to buy choice stock. Sale of cattle to commence sharp at one o'clock.

Terms: Cattle, time up to ten months on approved notes, bearing interest at 6 per cent.

Farm within the corporation, five minutes' walk from G. T. R. and C. P. R. stations, 9 miles south of Guelph on G. T. R., 5 miles from Galt on C.P.R. Electric railway connection from Waterloo, Berlin, Preston, Galt, Paris, Brantford and Hamilton. Good hotel accommodation 3 minutes' walk from barn. Catalogues on application.

**David Rife & Sons, Proprietors, Hespeler, Ont.**  
James McDonald, Guelph, Ont., Auctioneer

## AUCTION SALE

# 45 Holstein-Friesian Cattle

At Riverside Farm, CALEDONIA, ONT., on

Thursday, December 30th, 1909


28 females, all ages, and 17 bulls, including too stock bulls. Riverside herd represents several of the greatest families of the breed: Johanna DeKol, Wayne, Mercedes, Mechthilde, Pietertje, Sarcastic, Posch, Aggie, Ormsby, Paladin, etc.

Caledonia is on Buffalo and Goderich, Hamilton and Port Dover branch of the G. T. R. Reduced railway rates. Arrangements have been made with the G. T. R. for trains to stop at the farm. Trains will arrive at the farm at 9.30 and 10.30 a.m. from south, east, and west. Hamilton and Toronto trains will be met at Caledonia Station at 9.50 a.m. Trains leave the farm at 6.30 and 7.30 p.m. for all points.

Sale commences at one o'clock sharp. TERMS—Cash or 5% on approved notes.

Auctioneers—W. ALMAS, Brantford, Ont.; E. J. WIGG & SON, Cayuga, Ont.  
Catalogue ready by Dec. 15. Sale held under cover. Phone connection.

**J. W. RICHARDSON, CALEDONIA, ONT.**



**Holsteins** FOR SALE: COWS AND HEIFERS  
All ages. Also bull and heifer calves, including daughter and granddaughters of Pietertje Hengerveld Count De Kol, whose TWO famous daughters made over 32 lbs. butter each in 7 days, and sire of the "world's champion milking cow," De Kol Creamelle, which gave 119 lbs. in one day, over 10,000 lbs. in 100 days. Also for sale daughters of De Kol's 2nd Mutual Paul, sire of Maid Mutual De Kol, which gave over 31 lbs. butter in 7 days, also granddaughters of Hengerveld De Kol. Other leading breeds represented. Putnam station, near Ingersoll.

**H. E. GEORGE, CRAMPTON, ONTARIO.**




**CENTRE AND HILLVIEW Holsteins**  
140 head, 45 females in R. O. M. Herd headed by Brookbank Butter Baron, Bonheur Statesman and Sir Sadie Cornucopia Clothilde. The average of dam, sire's dam and grandam is: milk in 7 days, 662.85 lbs.; butter in 7 days, 30.58 lbs. We have bulls born Mar., '09, to two weeks old for sale, from Record-of-Merit dams. Long-distance telephone. P.D. Ede, Oxford Centre, Ont. Woodstock Sta.




**Fairview Herd**  
offers for sale a son of Rag Apple Korndyke. His dam is a daughter of Pontiac Korndyke, with an A. R. O. record of 13.88 lbs. butter in 7 days at two years. Price, \$150.00.

**E. H. Dollar, Heuvelton, N. Y.**  
NEAR PRESOTT.



**Lakeview Holsteins** Herd headed by Count Hengerveld Fayne De Kol, son of Pietertje Hengerveld's Count DeKol, who has five daughters averaging over 30 lbs. butter in 7 days, and whose dam (26.30 lbs. in 7 days) has a daughter with a record of over 35 lbs. in 7 days. Five bull calves from nine months old down from this sire for sale. G. T. R. and Hamilton Radial close to farm. Visitors met by appointment. E. F. OSLER, BRONTE, ONTARIO.




**Silver Creek Holsteins**—Have official records from 17 to 22 lbs. for 4-year-olds, 11 lbs. butter-fat for 2-year-olds. My stock bull has high official backing. For sale are a number of heifers and heifer calves, and 12 bulls, from 1 to 15 months of age, all sired by S. B. and out of Record cows; a high-class lot.  
A. H. TEEPLE, Currie's P.O. Woodstock Sta. Phone connection.



**Brampton Jerseys** Canada's greatest Jersey herd offers for sale 3 choice bulls, about 12 months old; also some younger ones, and one two-year-old. Females of all ages always for sale.  
B. H. BULL & SON, BRAMPTON, ONT.

**Hillview Ayrshires!** For sale: Females of all ages, bred for dairy purposes, with large teats, deep milkers, and large in size. Also a few extra good young bulls on hand. Winchester station, C. P. R.  
A. Kennedy & Son, Vernon, Ont. "HILLSVIEW FARM."



**AYRSHIRES AND YORKSHIRES**  
Can fill orders for car lots of Ayrshires, or for good grade dairy cows. Young bulls, cows, heifers or calves of choice breeding. Orders taken for imported stock for 1911. A few young Yorkshires. Write us for anything you need in above lines.  
Long-distance Phone. ALEX. HUME & CO., MENIE, ONT.



**GOSSIP.**

**REMEMBER THE SALE OF HOLSTEINS DECEMBER 23.**

With the present boom in dairy products, and the active demand for dairy-bred cattle that is the order of the day in Canada, and likely to remain so, an auction sale of pure-bred dairy cattle is found to prove an interesting factor to scores of Ontario's leading farmers, and the sale of 40 head of registered Holstein cattle of D. Rife & Son, of Hespeler, Ont., on Thursday, December 23rd, will certainly draw together a big crowd of representative farmers, not only of Ontario, but from Quebec as well, for we can assure parties from a distance that the quality of stock offered will not disappoint them. The one-, two- and three-year-old heifers are a grand lot. Among them are a quantity of show material of a high order. Catalogues will be furnished on application. The 8.30 a. m. train from Toronto will reach Hespeler at 11; returning, will leave Hespeler at 5.15 p. m., and reach Toronto at 7.45.

**TESTING ANTITOXINS.**

In recent years the use of tuberculin, serums, antitoxins, etc., has become a feature in the treatment of diseases, both of men and domestic animals. As a large number of such preparations have appeared on the market, some being of uncertain strength, and others worthless, the United States Congress wisely authorized the Department of Agriculture to buy samples in the market and test the various preparations recommended for veterinary use, and publish the results.

Among the antitoxins on the market for veterinary use is that prepared for use against tetanus, the disease commonly spoken of as "lockjaw." The animals most commonly attacked by this disease are horses and mules. The fact that many unsatisfactory results have followed the use of such antitoxins has led the Department to test the preparations put on the market by several manufacturers, both American and foreign, and the results have just been published in Bulletin 121, of the Bureau of Animal Industry. The striking feature of the results is the great variation in the strength of these antitoxins. It should be noted that the antitoxin for use on human beings is required by law to be of a certain known strength, so that the physician using it knows exactly what he is doing. But the veterinary who uses a preparation of unknown strength often fails to save the animal treated.

The tests showed that the "veterinary tetanus antitoxins vary extravagantly in their unit of strength, and some are comparatively weak in antitoxic potency." The results indicate the need for strict Government supervision of such preparations for the benefit of the veterinarians and the live-stock interests of the country.

**BOOK REVIEW.**

**CHARTS OF PATENT LAWS.**—Agricultural and manufacturing interests are interdependent. In Canada, of course, agriculture is supreme. But in their turn, farmers must have machinery, or work would come to a standstill, or be only partially done. Back of the machine is the inventor, whose worth to the world has been invaluable. The monetary reward which is his due has often been snatched from him by others, and to avoid this kind of thieving and protect the inventor, patent laws are in force in Canada, and in most civilized foreign countries. Each country has its own regulations in regard to the expiry and renewal of letters patent, but the average inventor usually does not care to familiarize himself with the details of these laws, and so it happens too often that after a patent has been secured, it is allowed to lapse through ignorance, or, sometimes, neglect. In consequence, there is a demand for patent attorneys who undertake to look after such matters. Egerton R. Case, now of Toronto, who has had considerable experience in this class of work, has recently compiled a set of charts, copyrighted, by means of which he easily keeps his clients informed as to the formalities necessary to the keeping alive of letters patent in the various countries.

Mr. Case is reliable. His advertisement will be found on another page, this issue.

**Springhill Ayrshires**

Headed by two bulls whose dams have the highest official records in Scotland. Order a bull calf out of our best cows.

We can please you in all ages and sexes.

**Robt. Hunter & Sons, Maxville, Ont.**



**Stonehouse Ayrshires**

36 head to select from. All imported or out of imported sire and dam. For sale: females of all ages. Am now booking orders for bull calves.

**Hector Gordon, Howick, Quebec.**



**STOCKWOOD AYRSHIRES**

Are producers of milk testing high in butter-fat. In my herd I have a range of selection, either imp. or Canadian-bred, of either young bulls or females, unexcelled in Canada. Price and terms to suit purchaser. **D. M. WATT, ST. LOUIS STA., QUE.**



**Cherry Bank Ayrshires**

I am now offering young bulls and heifers true to type and high in quality. Some with imp. sire and dam; also will spare a few older females.

**P. D. McARTHUR,**  
North Georgetown P. O. Que.  
Howick station, Que.



**Cattle and Sheep Labels**

You will want them sometime. Now is the time to send for free sample and circular. Write to-day.

**F. G. James, Bowmanville, Ont.**

Please Mention Farmer's Advocate.

**GRIT AND GINGER WIN SUCCESS!**



Do you want to win Success? Do you want to make your mark in the world? Do you want to live a life that others will emulate? If so, and you don't feel that you have the necessary Vim and Vigor, I can help you.

Talked with a man who called on me the other day—a skilled mechanic; went to a technical school; graduated with highest honors; had the ability, but couldn't hold a position. Said he knew he had no disease; doctors had told him that, but had no ambition, no energy, no grit. Knew he didn't want to take medicine. My remedy appealed to him; he bought it, and I'll make a Man out of him; I'll put him in the ranks of the winners.

Misfortune ever dogs the Weak Man—the plodder. About as much fight in these men as there is in a feather pillow, and it takes a lot of Bulldog Grit and Ginger to win in the battle of life as the game is played to-day.

Business of every kind is a battle. Life is full of opportunities, and if a man is always "on the job" and has the Grit and Gumption to grab these opportunities and hold on with Bulldog tenacity and fierceness, Success is his, no mistake about it.

You can't run a locomotive with lukewarm water, and you can't win Success unless your body is full of life—your nerve cells full of Electricity. "Electricity is life!" That's what is claimed by the greatest scientists of the world, and that is the remedy that I offer you.

Give me a man who suffers from weakness—broken in health and spirit, who lacks the essential Courage and Manliness of a brave man, and I can put new life into him with my Electric Belt. With my system of treatment he can conquer his weakness, overcome his pains and aches, and soon be able to hold up his head and count himself a Man among Men.

If you don't believe in Electricity, let me treat you at my risk. I will give you the Belt on trial, without one cent of risk to yourself. Give me reasonable security, and I will take your case, and you can

**PAY ME WHEN CURED**

The honors of this world—the successes in life are not won by weaklings. The man who drags himself along with a weak back, a stomach that feels as though he had a chunk of lead in it, is the fellow who hesitates, who has no mind of his own, who leans upon others, and such a man is terribly handicapped in the strife.

Imagine the effect of a mild, continuous current of Electricity poured into your body hour after hour at a time—all through the night—and you can foresee the help you will get. This invigorating current of Electricity—Galvanism penetrates every weakened nerve and muscle, promotes a healthy blood circulation and gives fresh impulse to all the functions of the body.

My Belt is a scientifically constructed Body Battery, and must not be confounded with anything heretofore sold as an Electric Belt. The most practical method of applying Electricity to the body that has ever been devised. My Belt is not a cure-all, but, as I can prove from statements of people who have used it, it is a positive and lasting cure for Indigestion (Dyspepsia), Constipation, Headache, Drowsiness, Rheumatism, Neuralgia, Lumbago, Sciatica, Weakness of the Back, Weakness of the Nervous System, Sleeplessness (Insomnia). It restores lost vitality. It corrects every sign of mental impairment and physical breakdown in Men and Women. Here I give you a sample of the kind letters I receive every day by the score from people who have found Health, Strength and Happiness through the use of my Belt:

**COULD HARDLY GET UP MORNINGS.**

St. Catharines, Ont., Aug. 26, 1909.  
Dr. McLaughlin:  
Dear Sir—After using your Electric Belt for the past three months I have found it to be just as you recommended it. I had a weak back for about two years. When I sent for your Belt I told you my back was very bad. When I said that I meant that it was so weak that I could hardly get up in the morning, I felt very weak all over. It was just as you said—run down from being on my feet so much, but now I can say that I feel like a new man. My back is as strong as ever, and I will have to take off my hat to you, and if my name will help you in any way by all means use it. If anyone wishes to write me and ask what the Belt has done for me, I can safely say that it made me a new man. I will never begrudge the money I spent on your Belt. Yours truly,  
St. Catharines House.  
F. J. DREW.

**CALL TO-DAY**

**FREE Consultation BOOK TEST**

If you can't call, send coupon for free book.

**DR. M. S. McLAUGHLIN, 112 Yonge St., Toronto, Can.**

Dear Sir—Please forward me one of your Books, as advertised.

NAME .....

ADDRESS .....

Office Hours—9 a.m. to 6 p.m. Wed. and Sat. until 8.30 p.m. Write plainly.

## Heart Trouble Cured.

Through one cause or another a large majority of the people are troubled with some form of heart trouble.

The system becomes run down, the heart palpitates. You have weak and dizzy spells, a smothering feeling, cold clammy hands and feet, shortness of breath, sensation of pins and needles, rush of blood to the head, etc.

Wherever there are sickly people with weak hearts Milburn's Heart and Nerve Pills will be found an effectual medicine.

Mrs. Wm. Elliott, Angus, Ont., writes:—"It is with the greatest of pleasure I write you stating the benefit I have received by using Milburn's Heart and Nerve Pills. I suffered greatly from heart trouble, weakness and smothering spells. I used a great deal of doctor's medicines but received no benefit. A friend advised me to buy a box of your pills, which I did, and soon found great relief. I highly recommend these pills to anyone suffering from heart trouble."

Price 50 cents per box, or 3 boxes for \$1.25, at all dealers, or mailed direct on receipt of price by The T. Milburn Co., Limited, Toronto, Ont.

## American Shropshire Registry Association.

HENRY L. WARDWELL, PRESIDENT.

Largest membership of any live-stock organization in the world. Vol. 21 of the Record published. Write for rules.

Mortimer Levering, Sec., LaFayette, Indiana

## FAIRVIEW SHROPSHIRE OFFERED.

12 high-class two-spear ewes, Sired by grand champions; Bred to grand champions; Every one has proved a fine breeder. Excellent quality, prices are low. Send for prices and circular to: J. & D. J. Campbell, Fairview Farm, Woodville, Ont.

## SPRING BANK OXFORDS

Rams and ewes of all ages at a great reduction for next 30 days. Order at once and get the pick. WM. BARNETT & SONS, LIVING SPRINGS P.O., ONT. FERGUS STA., G.T.R. and C.P.R.

The other day a man took his young nephew to the barber for the first time. He hated to see the soft little curls cut off, but his mother decided they must go. As the barber tied the towel under his baby chin, he remarked, "How do you want your hair cut, young man?" "Wif a little round hole in the top, like my faver's."

## HIS PAINS AND ACHES ALL GONE

Dodd's Kidney Pills Cured Chas. N. Cyr's Rheumatism.

Statement of a Man who Suffered for a Year from Different Forms of Kidney Disease, and Found a Speedy Cure.

New Richmond Station, Que., Dec. 13. —(Special).—In these cold fall days when Rheumatism, Sciatica, Backache, and other Kidney Diseases are working havoc in every corner of Canada, thousands will be interested in the statement of Mr. Chas. N. Cyr, the well-known barber of this place.

"I had been a sufferer from Rheumatism and Backache for a year," Mr. Cyr states. "My head also troubled me, and it was hard to collect my thoughts. I heard of cures made by Dodd's Kidney Pills, and made up my mind to try them. The marvellous effect of the first box on my system at once raised my hopes, and by continuing to take them, I am now a sound and well man. All my pains and aches are gone, and I am able to do my work without pain."

Mr. Cyr is only one of thousands whom Dodd's Kidney Pills have cured of Rheumatism, Sciatica and Backache. For Dodd's Kidney Pills always cure sick or disordered Kidneys. And if your Kidneys are well, you can't have Rheumatism, Sciatica or Backache.

## QUESTIONS AND ANSWERS. Veterinary.

### WATERING HORSES — ROPE-BURN.

1. I would like your opinion on the proper time to water horses.  
2. Horse has rope-burn in front of the hock. F. M. G.

Ans.—1. My theory is that my horse is, in this respect, like myself. When I am thirsty I want a drink, and so does my horse; and he should get one, unless he is very hot, when he should be allowed only a little water, and given some more in a few minutes. While theoretically horses should not be watered after meals, we find that in practice most horses like water both before and after eating, and, with few exceptions, this plan gives good results. If a horse suffers after being watered after meals, he should not be given any. Some horses are predisposed to colics, and if one suffers from colic under certain conditions, he should be treated accordingly.

2. Dress three times daily with equal parts of lime water and sweet oil. V.

### Miscellaneous.

#### TRESPASSING PIGS.

B's fence between A and B is a 9-wire Ideal fence, with No. 9 upright wires. C's and B's part between B and C are old rail fences, but have served the purpose for those men.

A's hogs (weighing 150 or 160 lbs.) got under B's fence, across B's farm, through C's fence, into C's corn-field in September.

C did not know that hogs were in corn until September 24th or 25th, drove them out, and on 27th told A about it, and asked that hogs be kept home.

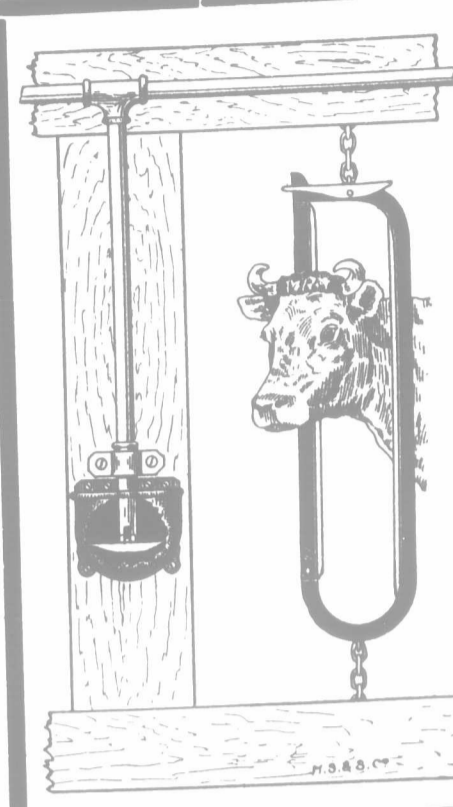
They continued to get in, so, on September 29th, C, with a witness, asked A for damages, and to keep hogs home. A blamed B, and said he ought to pay because of his fence. Then A and C agreed to leave it to one farmer to look at the fences, and if he said A was in fault, then A was to pay damages, the former to name amount of damages. On 30th (next day), the arbitrator chosen, came, looked at fences, pronounced B's fence good enough to hold ordinary hogs, and blamed A for allowing such hogs to run in the field where there was poor pasture (if any), for they would be sure to get through to where they found feed.

Arbitrator asked for another man to help estimate damages, was allowed, and brought second man October 1st; went through corn and figured it at \$40, but to settle quietly called it \$15. A went to see lawyers, then refused to pay, saying that B was to blame, and would have to fix the fence to keep back hogs. A allowed his hogs to go to the corn when they liked to, until October 18th. They weighed then about 200 pounds. At this time they were put in the pen. A also claimed that C could claim nothing because they got through C's fence, C claiming that so long as the fence was sufficient for B and C, he was obliged to fence there. Moreover, if B's 9-wire fence, weighted down by stones between the posts, would not turn the hogs, what could C build that would stop them?

1. Could C collect damages for corn?  
2. Was the arbitration legal, so that A could be made to fulfil his agreement?  
3. Is there any limit to the hogs running in fields, to be fenced against, or must neighbors fence back anything, and everything, even though they be driven by starvation?  
SUBSCRIBER, Ontario.

Ans.—1 and 2. Assuming that hogs are not permitted to run at large by the by-laws of your municipality, we would say that A is liable for the damage done, and, seeing that he has repudiated the award made by the arbitrators, we think that C is in a position to sue for and recover the full amount of the damages sustained.

3. Still assuming that there is no such permissive by-law, we would say that the owner or occupant of land must keep his hogs on his own premises, and if they get away and do damage, the responsibility and loss are legally his.



## IT PAYS

To make your stock comfortable. Any progressive dairyman will tell you that

### U-BAR STANCHIONS and ACORN COW BOWLS

will earn their cost many times over by increasing the profits from your herd. U-BAR STANCHIONS are strong, safe and easy to operate. There is no better stanchion made. ACORN COW BOWLS are the only perfect automatic watering device. They require no float tank, and the piping may be either above or below the stall. The bowls may be placed wherever convenient. Cows immediately learn to press the disc and drink whenever they wish. Write at once for our Free Illustrated Booklet.

The Metal Shingle & Siding Co., Limited, PRESTON, ONT. MONTREAL, QUE.

I HAVE GREAT, THICK, ROBUST SHROPSHIRE YEARLING AND TWO-YEAR-OLD RAMS dale mares, and a few beautiful Welsh ponies will also be priced at attractive figures. and a lot of grand Shropshire and Cotswold ram lambs, ewes and ewe lambs of high class, both breeds, and all of the best breeding. Will sell them in large lots or singly at prices you can afford to pay. Short-horn bulls and heifers, two good registered Clydesdales.

Robert Miller, Stouffville, Ontario

## SHROPSHIRE AND COTSWOLDS.

I am now offering a choice lot of shearing rams and ewes of both breeds, also a few of the best ram lambs I ever bred. They are large and extra well covered. JOHN MILLER, BROUGHAM, ONT. Claremont Station, C. P. R.

## MAPLE VILLA OXFORDS AND YORKSHIRES.

Present offering: Excellent ewes, choice rams, and the best lot of lambs I ever offered; all sired by imported rams. Yorkshires of both sexes and all ages. Boars fit for service. Sows ready to breed. A high-class lot. Satisfaction assured. J. A. CERSWELL, BOND HEAD P. O., ONT., BRADFORD or BEETON STAS.

POPLAR LODGE SOUTHDOWNS AND BERKSHIRES—For sale: A high-class show flock of Southdowns, also shearing rams and ewes, and ram and ewe lambs. Berkshires of both sexes and all ages; right good ones. An honest representation is my motto. SIMEON LEMON, Kettleby P. O., Ont., Aurora Station.

## Farnham Oxford Downs

The Champion Flock for Years.

Our present offering is 20 superior yearling rams for flock headers; some imported, and others by imported sires and from imported dams, or choice Canadian-bred ewes. Also a large number of first-class ram and ewe lambs. Our prices are reasonable. HENRY ARKELL & SON, ARKELL, ONTARIO. Arkell, C. P. R.; Guelph, G. T. R., and Telegraph.

## SOUTHDOWNS AND COLLIES

will be sold right. Long-distance telephone. ROBERT McEWEN, BYRON, ONTARIO.

## MAPLE GROVE YORKSHIRES.

To make room for the natural increase in our herd, we now offer for immediate disposal: 20 boars (big type) ready and almost ready for use. 15 sows, bred and ready to breed. 75 Aug. and Sept. pigs, pairs not related. Mostly all sired by M. G. Coompton—20102—champion and silver-medal boar at Toronto in 1907, and first as a three-year-old in the aged class in 1908, a grand stock getter. Many of our sows are prizewinners, and are of the best Yorkshire blood in England and Canada. Most of our young sows will be bred to our first-prize boar at Toronto this year. We are putting prices low, because we must sell. Satisfaction guaranteed. H. S. McDIARMID, Fingal, Ont. Shedden Station. Long-distance 'phone in house.

## MAPLE LEAF BERKSHIRES

For sale: Young sows bred and ready to breed; boars fit for service; also young pigs farrowed in March and April. Imp. sires and dams. Pairs not akin. C. P. R. and G. T. R. Joshua Lawrence, Oxford Centre P. O., Ontario.

## MONKLAND YORKSHIRES

With very nearly 100 sows in breeding, of modern type and high-class quality, our herd will stand comparison with any in Canada. We are always in a position to fill large or small orders with despatch. Long-distance 'phone. JAMES WILSON & SONS, FERGUS, ONT.

## MORRISTON TAMWORTHS.

Now offering 50 young boars 2 to 6 months old. Best breeding. Sired by the two imp. boars, England's Choice and Knowle King David. Also 50 young sows of same breeding. Chas. Currie, Morriston, Ont.

## Hillcrest Tamworths

are second to none in America for type and quality. For sale are both sexes and all ages, from sows bred and boars fit for service down to youngsters. Herbert German, St George, Ont.

## SUNNYSIDE CHESTER WHITE HOGS.

I am now offering some very choice young things of both sexes, of breeding age. A few Shropshire sheep of both sexes. A number of Bronze turkeys and toms, and Red Cap cockerels and pullets. W. E. WRIGHT, Glanworth P. O., Ont.

## Large White Yorkshires



Am offering during this month a good lot of young boars ready for service, young sows of breeding age, and a choice lot of spring pigs. Pairs supplied not akin. All bred from large imported stock. Write H. J. DAVIS, Woodstock, Ont.

## Newcastle Herd of Rams and Short-horns

—For quick sale at very reasonable prices, 6 sows sired by Imp. Cholderton Golden Secret, bred to farrow in Jan., Feb. and March, to a Toronto prize boar. Nearly all my brood sows are sired by that noted prize hog, Colwill's Choice, or Newcastle Warrior, champion boar at Toronto, 1901, '02, '03 and '05. I also offer 50 boars and sows, from 2 mos. to 4 mos. old. Two bull calves one year old. Half-a-dozen heifers, from 1 to 3 years old. Long-distance Bell 'phone in home. A. A. COLWILL, Box 9, NEWCASTLE, ONT.

## MONKLAND YORKSHIRES

With very nearly 100 sows in breeding, of modern type and high-class quality, our herd will stand comparison with any in Canada. We are always in a position to fill large or small orders with despatch. Long-distance 'phone. JAMES WILSON & SONS, FERGUS, ONT.

## Willowdale Berkshires!

Young sows ready to breed, boars ready for service, young pigs just weaned, all choice stock and bred in the purple. Everything guaranteed as represented. Long-distance 'phone. J. J. WILSON, Importer and Breeder, Milton P. O. and Station, C. P. R. & G. T. R.

## DUROC - JERSEY SWINE

Imported and home-bred. Sows ready to breed. Boars fit for service, and younger ones either sex. Also Embden geese. MAC CAMPBELL & SONS, HARWICH, ONT.

## OHIO IMPROVED CHESTER WHITES.

—Largest strains. Oldest-established registered herd in Canada. Young sows in farrow. Choice pigs 6 weeks to 6 months old. Pairs furnished not akin. Express charges prepaid. Pedigrees and safe delivery guaranteed. E. D. GEORGE, Putnam, Ont.

GOSSIP.

HYDROPHOBIA

Another disastrous outbreak of rabies, or hydrophobia, is occupying the attention of the Health of Animals Branch at Ottawa, this time in the County of Nepean, a few miles south of the town of Collingwood. A few weeks ago, Frank Hewson, a prosperous farmer living near Duntroon, had his attention drawn to a dog that appeared acting in a strange manner, viciously attacking a brood sow and some other stock near by. With some difficulty the dog was caught and securely chained, dying some two or three days after. About four weeks later, the sow in question took sick and died, then a couple of cows commenced acting strangely. The local veterinarian was called in, his efforts proving futile, both cows succumbing, then the stock bull, then one of his horses, then another cow, till at the time of writing four head of cattle, one horse and the brood sow have died. About this time Dr. Van Zant, of "The Farmer's Advocate," being in the neighborhood, was asked to make an investigation to determine the cause of the trouble, which was found, as above stated, to be the much-dreaded hydrophobia. The Department at Ottawa was immediately communicated with, when Dr. W. W. Stork was detailed to look after the outbreak. Fuller investigation revealed the disease on the farm of Blair Bros., a short distance away, where two head of cattle, as well as their own dog, had died with symptoms indicating rabies. It was also learned that a considerable number of dogs in that section had died with peculiar symptoms. The extent of the infection is not yet known, but necessarily be greater than is yet reported. For the benefit of those of our readers not conversant with the symptoms of this disease, we will enumerate a few of the more prominent. The period of incubation is, on an average, 30 days, in the general run of live stock; it is essentially a disease of the nerve centers, being usually ushered in by symptoms of more or less excitement, which increase rapidly in violence. There are muscular twitchings, stamping of the feet, tossing of the head, champing of the jaws, a more or less profuse flow of saliva or froth; anything moving in the vicinity of the animal being sufficient to throw it into a rage. Cattle will usually bawl when anyone is near them, and attempt to attack anything moving. Horses show their fury by viciously biting anything in reach, or their own legs if nothing else can be got at. They will also kick at moving or imaginary objects. Soon there is more or less loss of power, particularly of the hind legs. Death usually ensues in from three to five days. Contrary to the universally-believed theory, rabies is often more virulent in cool, or even cold weather, than during the hot months, and cannot originate spontaneously.

At the University of Missouri is the first working school of journalism in the world. As practical laboratory work, a daily paper, with telegraphic reports, is issued. Walter Williams, its dean, tells of the vicissitudes he encounters in turning laymen into journalists.

A student was sent in haste to cover a railroad wreck at a town a few miles away. It was almost time for the daily to go to press, and still no word had been received from the young man on the assignment.

In desperation, Dean Williams telegraphed, asking why the story was not forthcoming. The reply was:

"Too much excitement. Wait till things quiet down."

HIS AMAZING MEMORY.

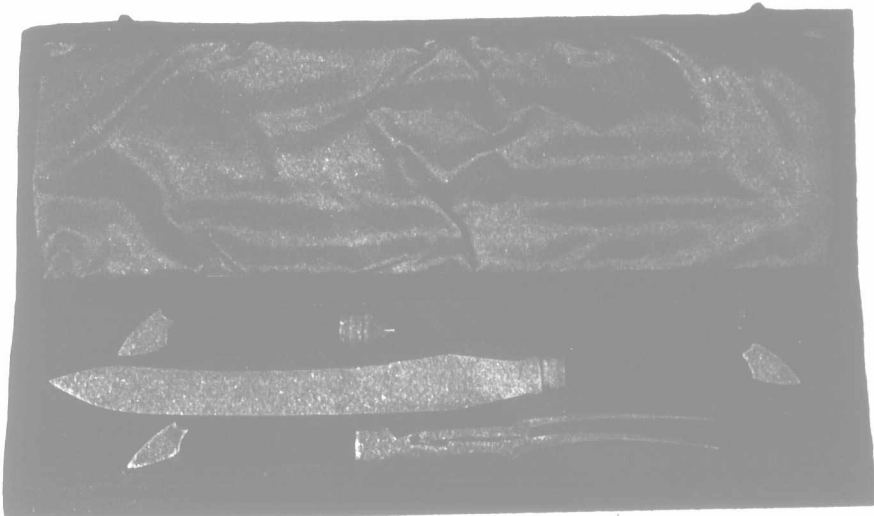
Charles J. Ross, the actor, was discussing a recent divorce suit. "The conscientious memory of the average witness," he said, "is like that of an old colored man I once met, who claimed to have known George Washington. I asked him if he was in the boat when Gen. Washington crossed the Delaware, and he instantly replied, 'Lor, massa, I steered dat boat.' 'Well,' said I, 'do you remember when George took the bark at de cherry tree?' He looked worried for a minute, and then, with a beaming smile, said, 'Why, suah, massa, I do. I steered dat back mahself.'"

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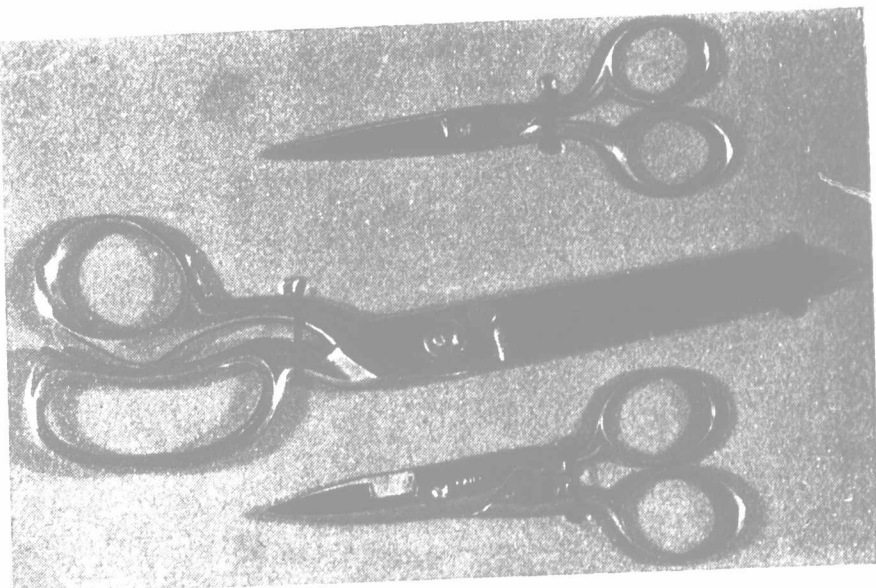
We must have honest workers. Changing the name from one member of the household to another, or deception of any kind, will not be allowed. If discovered, the premium will be withheld.

These premiums are given only to our present subscribers for sending in bona-fide new yearly subscriptions, accompanied by \$1.50 each.

**SET STACHORN CARVERS.** High-class goods. First quality of steel, and staghorn handles and handsome nickel mounting. These carvers will retail at \$3.50 to \$5.00 per set. **4 new subscribers.**



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LONDON, ONTARIO.

## You Cannot Afford Any Roofing Which is Not Guaranteed for Twenty-five Years

**Oshawa-shingled roofs are guaranteed for twenty-five years. No other roofing is guaranteed for five minutes.**

SO put it squarely up to the next fellow who tries to sell you some roofing "as good as Oshawa Steel Shingles." Ask him to agree in writing to replace the roof free if it gives any trouble within the next quarter-century. Then watch him dodge. See him evade. Hear him tell about Mr. Somebody, of Someplace, who roofed a barn with his roofing in 1884 and it's a good roof yet. Hark to him ask if that doesn't make you feel safe.

Tell him it doesn't prove what the Pedlar Guarantee does prove. Because that guarantee is your absolute protection against roof troubles for twenty-five years to come.

There is your roof-insurance for the future. There is a binding promise to give you a new roof entirely free, to put it on the building for you free, and to guarantee it for another twenty-five years, if your roof of Oshawa Galvanized Steel Shingles gives any roof trouble within twenty-five years from the day it's on.

There is \$250,000 capital back of that guarantee. There are 48 years of honorable reputation back of that guarantee. And there is the biggest business of its kind in the British Empire back of that guarantee.

So it is plain common sense for you to refuse to buy any roofing that is not guaranteed. And the only kind that is guaranteed is this kind we make—Oshawa Galvanized Steel Shingles. Guaranteed for 25 years. Actually good for a century.

### **This is the Roofing For Your Money**

Oshawa Galvanized Steel Shingles make the roof you can best afford for any building. They cost but five cents a year per square. (A square is 100 square feet). They are stamped from heavy sheet steel—28 gauge steel. Then they are thickly galvanized. That means they are coated with zinc—the rust-defying metal—in such a way that the zinc is driven right into the steel. It cannot flake off, as it would if this galvanizing were done the ordinary way.

Thus these Oshawa Shingles require no painting. They will not rust. They cannot possibly leak.

So you are sure you will have no bother with your Oshawa-shingled roof, once it's on the building. You can depend on that; and you can doubly depend on it because you have the guarantee. Hand it to your banker or lawyer to keep for you; and know that it is good for a new roof right up to the last day of the twenty-fifth year—if the first one gives any trouble whatever.

### **Cost Far Less Than Wood Shingles**

You must pay about the same price per square for ordinary wood shingles. They will cost you more to lay, because it is a quick and simple job to roof with Oshawa Steel Shingles—and it is no easy job to lay wooden shingles right.

And the wood-shingled roof will need repairs every year or two. Probably it will leak from the start. And it will be no real roof at all at the end of ten years, at the most.

You can be certain that an Oshawa-shingled roof will outlast a wood-shingled roof ten to one. This it costs but one-tenth as much.

Send to-day for Sample Shingle and "Roofing Right" Booklet No. 16. Address nearest place:

## The PEDLAR PEOPLE of Oshawa

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1861

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OTTAWA  
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CALGARY  
215 12th Ave. W.

EDMONTON  
547 2nd Street

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ADDRESSES OUR NEAREST WAREHOUSES.

WE WANT AGENTS IN SOME LOCALITIES.

WRITE FOR DETAILS.

### **This is the Roof That Really Protects**

Oshawa-shingled roofs are not merely weather-proof roofs. They are fire-proof roofs. They are wind-tight roofs. They keep buildings cooler in summer and warmer in winter.

And the building covered with Oshawa Steel Shingles is safe against lightning—far more so than it would be if it fairly bristled with lightning rods.

Put these Oshawa Shingles on a building, following the simple, plain directions that come with them, and you have a roof that is handsome enough for a city hall and that absolutely protects.

Practically an Oshawa-shingled roof is one seamless sheet of tough galvanized steel. Not a crevice for moisture to get through. No way to set fire to it. No chance for the wind to worry it. Dampness cannot gather on the under-side of it. It needs no painting. And you need not worry about it needing any repairs, for twenty-five years at least.

Isn't that kind of a roof for you? Isn't that kind of a roof worth more than it costs? Isn't it the only roof you ought to consider?—since it is the only roof of which all these things are true.

### **Get Your Copy of This Free Book**

Send your name and address to the nearest Pedlar place. Tell them you want your free copy of "Roofing Right."

When you have read that book through, you will know more about roofing than a good many experts know. It gives you facts, proofs, figures.

Get it and read it. Get it even if you don't expect to do any roofing for some time yet. It will put you right on the whole roofing question.

With the book will come a copy of our Guarantee. Study that, too, and see how fair and square and straightforward it is. See what positive protection it gives the man who buys Oshawa Steel Shingles.

### **Sample Shingle Free**

WITH the book will come a sample of the Oshawa Shingle itself. It will interest you to study it. You will see the actual construction. You will see that the Pedlar Improved Lock, on all four edges of the shingle, makes it certain that moisture never can get through any Oshawa-Shingled roof. You will see how the Pedlar process of galvanizing drives the zinc right into the steel so it never can flake off. You will be in no doubt about which roofing after you have studied this shingle. Send for it and the Book and Guarantee—Send now.



I know, of course, that some salesman for some other roofing material is liable to tell you there some "catch" about Pedlar's guarantee.

And you can't wonder at his saying so. How else could

he meet the great, big, dollars-and-cents value that guarantee has for the man who buys Oshawa Shingles?

But you know right well that a concern cannot stay in business unless it does business strictly on the level. Our business was founded by my father in 1861. To-day this is the biggest factory of the kind in the British Empire. Our capital is a quarter of a million. You can easily find out our business standing.

So, seriously, do you imagine for a minute we would dare issue a guarantee that wasn't square?

Take my personal word for it—the Pedlar guarantee is exactly what this advertisement says it is.

Send for a copy of it and see for yourself. You won't doubt its good faith then. That is certain.

*G. A. Pedlar*

### **It Will Pay You to Pedlarize All Your Buildings**

"To Pedlarize" means to sheathe your whole home with handsome, lasting and beautiful steel—ceilings, side-walls, outside, roof. It means to protect yourself against cold; against fire; against much disease; against repair-bills. Ask us and we will tell you the whole story. Just use a postcard and say: "How about Pedlarizing my house?" State whether brick or frame. Write to-day.