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Census and Statistics  
Dept. of Agriculture  
Dec 31, 09

# THE FARMER'S ADVOCATE

AND HOME MAGAZINE

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

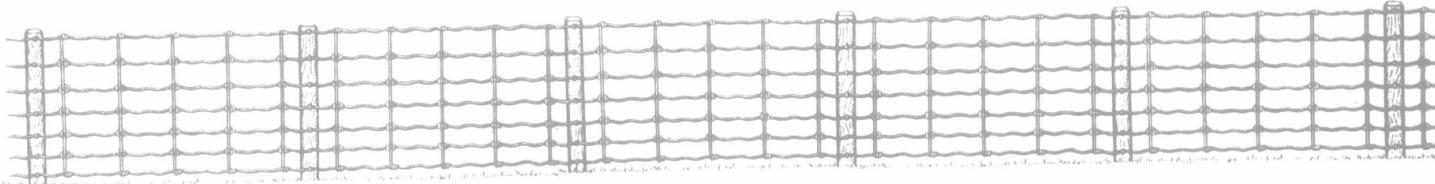
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Vol. XLV.

LONDON, ONTARIO, MARCH 17, 1910.

No. 912

## How the Frost Fence Saves One-third in Posts



The new Frost Fence is the strongest in Canada. It can be safely stretched tighter than any other.

And because of that, it saves about one-third in Fence Posts. Just think what that means to you. And tests are proving this to be accurate.

You see, we have at last arrived at a correct solution of Canadian Fence requirements. And we didn't arrive here by guesswork, nor say-so, either. It took years of experimenting, studying and tests.

### Make Our Own Wire

You know, nearly every Wire Fence ever put up in this country has given up its life from 12 to 15 years sooner than a Wire Fence should. Although that very same grade of Wire, and that same thickness of Galvanizing, has made good in other places.

Those scientific researches of ours have proven that the real cause of failure is nothing short of extreme climatic changes in Canada.

The Wire formerly used for the Frost Fence was made under our own specifications. It always gave better service than any other Fence in Canada. But it could not constantly overcome this destructive Canadian Climate.

So we now Make and Galvanize our own Wire. This new Frost Wire cannot be effected by that enemy which so easily ruins other Wire.

And we are the only exclusive Fence people in Canada who Make Wire.

### Rusts Out Life

That climatic business which we were telling you about simply rusts the very life out of the Wire's Galvanizing.

Although two-thirds of the life of a Wire Fence depends upon its Galvanizing, that on nearly every Fence in Canada is entirely too thin.

"But," you think, and the Makers say: "if it were thicker it would 'chip.'"

Galvanizing won't adhere per-

manently to greasy, scaly Wire, will it? That grease and scale will drop off sometime. Then away goes your Galvanizing.

### Galvanized Thicker

But the Frost Fence is Galvanized about 100 per cent. thicker than others. Yet it won't "chip."

Because every speck of grease and scale is removed. That leaves the surface as clean as a pin. The Zinc not only spreads over the surface, but it goes into the Wire, becoming a part of the Wire itself.

A poorly-cleaned surface is one reason why nearly all Wire is unfittingly Galvanized for Canadian purposes.

But perhaps the principal reason is because Zinc costs four times more than Wire. For this reason, much Wire is wiped almost clean of its Galvanizing during the surface-smoothing process.

Frost Galvanizing will fight off the rust for 12 or 15 years longer than any other Wire in this country.

Please remember that!

### Principal Reason

The principal reason why the Frost Fence will save about one-third in Posts is just this:

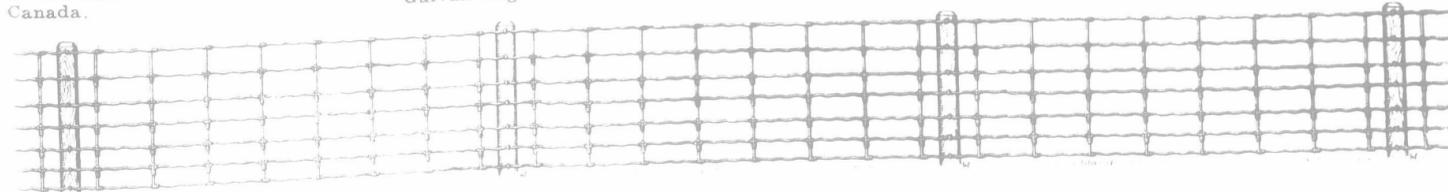
The Coils in the Frost Fence act exactly like a Spring. When those severe Canadian weather changes cause the Frost Fence to contract, these Frost Coils "give" their surplus Wire. But nearly all other Fence will snap.

And when expanded, these very same Frost Coils "take in" that surplus. This instead of letting the Fence sag, lose its shape, and become unsightly. And no matter how often contracted or expanded, these Frost Coils always act the same.

### Write To-day

Send for our Free Booklet on Wire Fence. It tells all about Fence, and Fence-making.

We'll send it to you free, together with samples. Drop us a card this very minute.



# "Frost" Fence

The Frost Wire Fence Co.,  
Hamilton, Limited Ontario

Agents  
Farmers  
and  
Gardeners

## Bagpipes



We're the largest Bagpipe dealers in North America.

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

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

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

Repairs promptly done. Write for catalogue to-day.

**C. W. Lindsay LIMITED,**  
Ottawa, Ontario.

## Northern Ontario

The forest and mineral wealth of Northern Ontario has attracted many people from all parts of the civilized world.

One ninth of the world's reported output of silver in 1908 was taken from Ontario mines.

New discoveries of undoubted richness are being constantly reported from sections far distant from the far-famed Cobalt. Yet a more certain reward is insured to the settler who acquires for himself 160 acres of the rich agricultural lands now open for settlement and made accessible through the construction of railways and Colonization Roads.

The fertility of the soil is unsurpassed. The timber is in demand at a rising price. Mining, railway and Colonization Road construction, lumbering, etc., afford work in abundance to those who have not the means to remain on their farms continually. These also provide a market for farm produce at prices unequalled anywhere.

Cochrane, the terminus of the T. & N. O. Ry., on the G. T. P. Transcontinental Railway, now under construction, is in the same latitude as the southern part of Manitoba, and 800 miles nearer the seaboard.

That the experimental stage is past is clearly demonstrated. The country is rapidly filling up with settlers from many of the other Provinces, the United States and Europe.

For information as to terms of sale, homestead regulations and for special colonization rates to settlers and for settlers' effects write to

**D. SUTHERLAND,** The Director of Colonization,  
Parliament Buildings, TORONTO.  
HON. J. S. DUFF,  
Minister of Agriculture.



### 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 enter 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.

W. W. CORY,

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

**INVENTIONS** Thoroughly protected in all countries. EGERTON R. CASE, Registered U. S. Patent Attorney, TEMPLE BUILDING, TORONTO. Booklet on Patents and Drawing Sheet on request.



Wood shingles make a poor roofing investment

Prepared roofing, another poor investment

The only way to arrive at a correct conclusion as to which roofing is the best investment is to compare their cost per year of service.

Wooden shingles, of medium grade, in most parts of Ontario, cost at least \$1.50 per square—100 square feet of surface.

### 29¢c. per Square

They may last twelve years. Chances are they will be rotted through long before then. However, let us divide \$3.50 by 12. That gives us their cost per year of service, which is 29 1/2¢c per square per year.

Ready roofing is an even poorer investment. The best does not last longer than 10 years. At \$3.50 per square, the cost per year is 35¢c.

Slate is easily twice as good an investment as wooden shingles. A slate roof will last 50 years. At \$7.00 per square the cost per year figures out as 14¢c.

### Better Than Slate

PRESTON Safe-Lock Galvanized Steel Shingles are an even better investment than slate. They will at least last as long as slate.

All slate roofs, you know,

have galvanized steel valleys, hips and ridges—the most exposed portions of the roof. That proves good steel roofing is as durable as slate.

### 9¢c. per Square

But PRESTON Shingles only cost \$4.50 per square. Allowing for 50 years of service their cost per year is 9¢c per square, as against 14¢c for slate, 29 1/2¢c for wooden shingles, 35¢c for ready roofing.

PRESTON Safe-Lock Shingles should last 100 years. They are the only shingles made and galvanized so as to pass the British Government's Acid Test. Shingles that will pass this test are practically everlasting. Yet PRESTON Shingles easily pass this severe test.

As PRESTON Shingles are made on improved automatic machinery and the locks are accurately formed, they fit together quickly.

### Lay Them Faster

A man and a helper can lay 10 squares of PRESTON Safe-Lock Shingles in a day, whereas 5 or 6 squares would be a good average with wood shingles and other

metal shingles. If you have a large surface to roof that saving of time and labor means a good deal to you.

Remember, it takes half again as long to lay wooden shingles as PRESTON Shingles. Twice as long to lay slate.

Besides, wooden shingles and ready roofing cost something for repairing and repainting every three or four years. You save all this expense with PRESTON Shingles.

### Less Insurance

Also, the insurance rate for a barn covered with wooden shingles is far higher than for PRESTON

Shingles—often as much as 50 per cent. more.

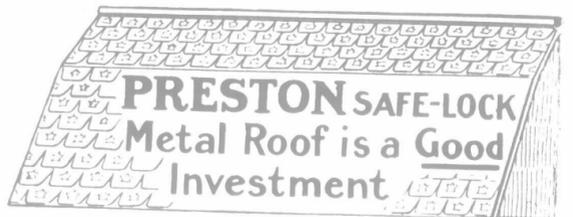
But before making any decision as to the kind of roofing you will buy, send for our new booklet, "Truth About Roofing."

### Booklet Reward

This booklet contains information of real value to anyone who has a building to roof. It explains PRESTON Safe-Lock construction fully and contains a copy of our Free Lightning Guarantee. We should charge something for this booklet, but we will send it FREE as a reward to all who will cut out, fill in and mail the coupon to us.

Send for it to-day, or you'll regret it.

**METAL SHINGLE AND SIDING COMPANY, Limited**  
HEAD OFFICE, QUEEN ST. FACTORY, PRESTON, ONT.  
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**PRESTON SAFE-LOCK Metal Roof is a Good Investment**

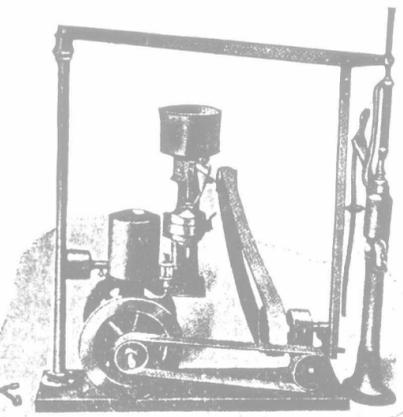
Please send me your new booklet, "Truth About Roofing." I am interested in roofing, and would like complete information about PRESTON Safe-Lock Shingles.

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P. O. Address.....  
County..... Prov.....

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Windmills,  
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Pumps,  
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Any size with the London Adjustable Silo Curbs. Wood Silos soon rot and fall down. Steel Silos have a very short life, as the acid from the corn around the edges caused by freezing. A CONCRETE SILO once built will last for ages. Costs less to build than steel silos, and there is absolutely no waste of corn. Thousands of farmers testify to the merit of concrete silos. Send for Catalogue. We manufacture a complete line of Concrete Machinery. Tell us your requirements.

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Agents for B. Columbia: A. G. Brown & Co., 1042 Westminster Ave., Vancouver, B. C.

## WIRE FENCE at Factory Price

Why don't you buy your wire fence, say as United States farmers—direct from the factory at one small profit. The only factory in the world that makes the best wire fence you want, and you get it at one small profit. The only factory in the world that makes the best wire fence you want, and you get it at one small profit. The only factory in the world that makes the best wire fence you want, and you get it at one small profit. The only factory in the world that makes the best wire fence you want, and you get it at one small profit.

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Or cold air suits the

Will serve you all the YEAR AROUND. Made to stand severe WEAR AND TEAR.

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**Boys for Farm Help** The managers of Dr. Barnardo's Homes invite applications from farmers, or others, for the boys who are arriving periodically from England to be placed in this country. The young immigrants are mostly between 11 and 13 years of age; all will have passed through a period of training in Dr. Barnardo's English Institutions, and will have been carefully selected with a view to their moral and physical suitability for Canadian life. Full particulars as to the terms and conditions upon which the boys are placed may be obtained upon application to Mr. Alfred B. Owen, Agent Dr. Barnardo's Homes, 50-57 Peter St., Toronto.

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

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OR LUCERNE CLOVER SEED

Are you going to seed down a field with this valuable forage plant? YOUR SUCCESS greatly depends on the seed you select. "Our Gold" Brand we honestly think is the best that can be got. It is a large, bright, PURE and CLEAN seed.

**BUY NOW.** Present price, **\$13.00 per bush.**, f. o. b. Toronto. Bags, 25c. each. A seeding of 20 lbs. per acre gives the best results.

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Send us your list of LUMBER (rough or dressed), LATH, SHINGLES, DOORS, SASH, TRIM, or anything in woodwork for building construction, and we will quote you promptly.

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Beware of separators with complicated skimming devices. It's impossible to get into the corners and crevices of such devices and clean them thoroughly.

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The few, simple, smooth cones of the Frictionless Empire are as easily cleaned as a glass tumbler—and you can clean them just as thoroughly.

Cream separated by the Frictionless Empire is sweet and clean—first quality. It makes the finest butter you ever tasted.

Your ten-year-old daughter will enjoy turning the Frictionless Empire. So nearly frictionless it almost runs itself. Unless you stop it with our brake it will run for half an hour after you quit skimming. It's the only separator with ball bearings on both top and bottom of bowl-spindle.

Years of service prove their worth. Empire separators in constant use for ten to fifteen years have cost on the average only thirty cents per year for repairs. Samuel



Gilmour of Rocklyn, Ontario, says he bought an Empire, 325 lb. machine, in 1896, and it has not cost him one cent for actual repairs. He has kept on an average 15 cows.

Some day you'll own an Empire. The sooner that day arrives the better for you. And whether you choose the Frictionless Empire (cone method) or the Empire Disc you are buying certain satisfaction. There's Empire Quality in each machine, and a binding guarantee as good as a gold bond.

Get our new 25c. book. It gives unbiased information about the cone and disc methods, which are the only two standard methods of cream separation. Contains many valuable dairy pointers. We will send you one copy free, provided you tell us the number of cows you keep. Also name of this publication. Send for this book immediately. Ask for book No. 82 Extra copies 25c. 3

## The EMPIRE Line of Cream Separators

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Take the "Champion" into a particularly "dirty" field, where vine roots, corn roots, weeds, tangled grasses or straw manure abound. If you've never before seen it work, you'll marvel at the way its sharp, carefully tempered steel DISCS either cut through or roll over everything that may lie in their way. They will not gather anything before them. You'll marvel at the way the high-grade, cutlery steel SCRAPERS (designed after years of experimenting) keep the discs scrupulously clean. Each hour you'll grow more enthusiastic over the manner in which the FORCE FEED MECHANISM produces its steady, even flow of seed—and never a seed even slightly bruised. The DUST PROOF BALL BEARINGS, on each disc wheel, which require oiling but once a year—they'll interest you, too. And the high wheels, with low down grain box—you'll quickly see this means an EASY Machine to operate. Perhaps you'd like to read about the "Champion" Disc and "Champion" Hoe Drills, so write for special drill catalogue F52

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You can operate the Aspinwall No. 3 Potato Planter without the assistance of another man. The Aspinwall No. 3 not only plants one-third faster than machines requiring two men. The hand that handles the seed on the Aspinwall No. 3 is the iron hand. Unlike the human hand, it never gets tired. It drops 99 per cent. good. You can use different sizes of seed and vary the distance of planting without requiring change of pickers. No other planter can compare with it in accuracy or handle as large a range of seed.

Send for our catalog F1. We are largest manufacturers of potato machinery in the world, and we can give you valuable facts on profitable potato culture.

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Section and Flexible All-Steel Harrows with an unequalled record. A large variety suitable for the requirements of any country, made in different widths to suit purchasers. Pre-eminently the most efficient, strongest, and longest-wearing Harrows is our unqualified guarantee. Parties wishing a first-class Harrow will do well to write us direct or apply to the local agent. Address Dept. F.

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## 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

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In last week's issue, on this page, we outlined our mail-order system, and our way of doing business. This week we commence a series of mail-order specials, and have prepared to offer values such as cannot be equalled anywhere; back of this you have our guarantee, with the privilege of returning, at our expense, any goods purchased through our mail-order system, and having your money refunded. The table napkins advertised here will be selected by our mail-order buyer for you. The glass toweling you may write for samples for comparison if you wish.



### 26-inch Tea Toweling 10c. Yard.

This is an extraordinary width for a glass toweling at this price, and is not only extraordinary in width, but in quality too. We have about 500 yards in red or blue checks reserved for mail-order customers. **SPECIAL 10c. YARD.**

**WE DELIVER FREE.**—By express or freight to your nearest express or freight stations within 200 miles of London, all purchases of \$5.00 and over, except on certain bulky goods, such as furniture, etc.

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**THE BEST!** No matter how you look at it.

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ESPECIALLY ADAPTED FOR GENERAL FARM USE.

Buy a Fairbanks-Morse Gasoline Engine for your farm, and make more money next season than you have ever made before.

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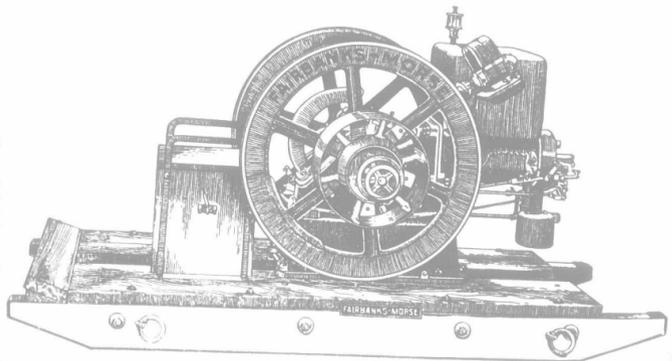
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TERMS:

Special Terms to Farmers.

# The Farmer's Advocate

## and Home Magazine

"Persevere and Succeed."

Established  
1868.

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Vol. XLV.

LONDON, ONTARIO, MARCH 17, 1910

No. 912

### EDITORIAL.

Lightning struck early this year.

With all respect to the dogs, we submit that it is absurd, in view of the rabies contagion, liable to break out anywhere, to accord them more privileges than lunatics.

Beware of Western seed oats. Prof. C. A. Zavitz tells us he counted 147 wild oats out of a three-ounce grade sample from the office of Inspector Horn, in Winnipeg. Sow the wind, and reap the whirlwind.

One dollar and seventy-four cents per ton is Mr. Fixter's estimate of the cost of growing corn for ensilage on Macdonald College Farm, counting rent of land, manure and labor. No wonder he declares that "corn is king."

Eight, nine, ten dollars for live hogs, and prices still going up. Quotations ranging from \$10.15 to \$10.50 were reported from five leading American points the first of last week, surpassing, in many cities, Civil-war figures. Where will it end?

Here is a good debate for some of our Farmers' Clubs: Resolved that selection from the best varieties existing is a more promising means of crop improvement than hybridization. Debaters who will read up carefully on that subject might discuss it with great profit to themselves and their audience.

If it can be shown that a farm wood-lot, besides its numerous aesthetic, climatic and other benefits, may be expected ultimately to return in fuel and timber fair annual compound interest or rental on the value of the land, surely no more need be said to persuade every farmer to leave ten or twenty acres of his land under trees, or to reforest, if already cleared.

Hogs have gone up since the agitation for increased duty on pork was begun. If the duty had been raised, the increase in price would have been triumphantly claimed as an inevitable effect of the increased duty. The fact that it occurred without any change whatever in the tariff, illustrates how easy it sometimes is to construe coincidence as cause and effect. Jumping at conclusions is not logic.

Is this Provincial trunk-road project in the farmers' interest, in the general interest, or in the interest of a certain privileged class? Build the trunk roads, but not with public money. Make the automobile tax or license fees pay the whole cost. Autoists profess willingness to contribute thus to the upkeep of the roads. Take them at their word. Build motor roads with motor taxes, and with those alone.

Not enough attention is being directed to the upkeep of back-line earth roads in townships where gravel is not found. In this connection, the statement of W. B. Rittenhouse, Lincoln Co., Ont., at the Good Roads Convention, that at an annual expense of from \$5 to \$10 per mile, such roads could be maintained in excellent condition, is well worth considering. Faithful use of the split-log drag is the means recommended.

The tables have turned. Canada now holds the whip hand in international tariff negotiations with her Republican neighbor.

The man who declares that farming does not pay decent interest on the capital invested is usually the most resolute skeptic of farm forestry as an investment. The double-acting philosophy by which a man reasons in one breath that wages, risks and general expenses of cropping leave scant interest on his acres, and in the next breath declares that farm forestry is unprofitable because it does not yield an annual income equal to the gross value of a crop of wheat, must be an outcome of one of those profound mental processes which ordinary intellects can hardly hope to understand.

Public levity over the dog-muzzling and confinement regulations is giving way as the grave condition in regard to hydrophobia, in Western Ontario is becoming known. The pitiful case of a boy in Wentworth County, who died from rabies contracted from his pet dog, is only one of many disturbing developments. The existence of rabies is no illusion, and the dog-muzzling regulations are no joke. We sympathize with the dogs which have to wear muzzles, but, after all, it is kinder to the dogs themselves to muzzle them than to submit the whole animal and human tribe to the danger of such a frightful contagion as rabies. Thorough measures are the only price of safety.

An intelligently written, very interesting and suggestive letter has been received from a Wellington County (Ontario) subscriber, who submits the results of his experiments with fertilizers for potatoes and turnips. In his case, acid phosphate (or superphosphate) has given marked results on both crops. That it should have done so with turnips, is not extraordinary; the potato experiment is rather surprising. We echo his request for the experience of others who have used fertilizers. Barnyard manure is by all odds our best fertilizer, so far as it goes, but it does not always go far enough, and the day is coming when more Canadian farmers will employ supplementary dressings of artificials, especially to the more intensive crops, such as roots, fruits, vegetables, and the like. There are a great many interesting questions each farmer might be putting to his soil. Hands up, those who have answers ready!

A European scientist, Prof. Metchnikoff, claims to have discovered that a diet of specially-prepared sour milk has great health-giving properties, the lactic-acid bacilli abounding in it being deadly foes of the putrefactive and disease-producing bacteria which abound in the large intestine. By a strange coincidence, Prof. W. R. Graham has found this winter, in an experiment with rations for laying hens, that the lot receiving buttermilk along with the usual grain ration yielded the largest profit per bird, looked the healthiest, and laid eggs with greater hatching power than those from birds receiving beef scrap or bone meal, being exceeded in this respect only by the lot which had neither meat food nor milk, this latter bunch standing second to the last, however, in point of profit on egg yield. While warning against premature conclusions, Prof. Graham believes that in buttermilk he has found an excellent regulator and corrective, a means of keeping the birds healthy when brought in off the range, and possibly an effective means of coping with white diarrhea. At any rate, he has fed buttermilk liberally this winter, and never had as high fertility before, nor as good health among the birds.

### The Problem in Cereal-plant Breeding.

At the Canadian Seed-growers' Convention in Ottawa, last month, a superficial observer might have inferred that our cereal hybridists had accomplished little, compared to the work of a Burbank or a Groff. Inquiry would reveal that the most difficult work of the cereal improver begins where the hybridist of flowers, fruits and trees leaves off. The worker with plants that can be reproduced by vegetative processes, as from tubers, cuttings, scions, runners, and the like, has a comparatively easy task. Once hereditary characters have been broken up by crossing and recrossing into an infinite variety of types and characters, it is only a matter of selecting from them the individuals which are considered most valuable. These then may be reproduced faithfully by any one of the means indicated above. They come true to type because the scion or cutting is a part of the parent plant, just as a finger is part of one's body. With a seed, however, and especially a seed produced by crossing two parent plants, it is altogether different. It may produce almost anything, and in the case of plants that must be reproduced from seed, as with grain, for instance, the plant-breeder must go on selecting and reselecting, one generation after another, until a new variety has been established, with all its characteristics fixed, so that it will reproduce true to type generation after generation.

We have in Canada two men who are doing important work in hybridization of field crops: Dr. Chas. E. Saunders, at Ottawa, and Prof. C. A. Zavitz, at Guelph. Dr. Saunders is devoting himself especially to wheat, continuing the work begun by his father, Dr. Wm. Saunders, one of the first men, if not the first, in America to take up this line of work. Dr. Saunders' special aim is to secure an early, good-yielding and good-milling variety of spring wheat for the West, and in this respect the Preston is a notable achievement. The Preston, we believe, was first sent out by Dr. William Saunders before its characteristics were firmly fixed, so that it exhibited diverse characteristics. Dr. Chas. Saunders recalled it, and grew it at Ottawa until he was sure it was a dependably true variety. It is now raised with satisfaction by some farmers in the West, in districts subject to early fall frosts, ripening several days ahead of Red Fife.

In the Field Husbandry Department at Guelph, under Prof. Zavitz, a great deal of valuable work has already been accomplished in both selection and hybridization. Prof. W. M. Hays, United States Assistant Secretary for Agriculture, who visited Guelph last summer, said, on leaving: "You are doing more here at this place in plant-breeding work than anywhere else in America, except, perhaps, the Minnesota Station, and your work is finer and more thorough." In selection, the No. 21 barley has been developed from Mandschouri, which it outyields. Likewise, the highest-yielding winter wheat grown on the plots at Guelph is one that has been originated at the College by selection from Dawson's Golden Chaff. It is not, however, ready to send out to the public. Besides these and other triumphs in selection, the following, among other important results, have been attained through hybridization. The highest-yielding variety of oats on the plots last year was a hybrid of Siberian and Joannette. The finest-growing and thinnest-hulled oat out of 250 kinds grown on the plots was another hybrid produced from the same parents. This variety shows less than 21 per cent. of hull in the average of three years' determinations, as compared with 30.4 per cent. in the Siberian. Similar work has been accomplished with various other farm crops. It

## THE FARMER'S ADVOCATE AND HOME MAGAZINE.

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must be confessed that, as yet, none of these varieties produced by hybridization are ready to send out to the public; for, while certain ones excel in certain respects, they may fall short in certain other respects, or, at least, their prepotency in the transmission of other desirable attributes is not assured; but the fact that positive results have thus been obtained in various directions, indicates the possibilities of the work. It is work for the future, work for a lifetime, and the country can well afford to employ several men thus in the mere chance of producing something superlative. Supposing, for instance, that a variety of oats equal in all other respects to Banner or Siberian might be produced, but yielding a bushel more per acre, or containing less hull by five or ten per cent. Figured on a basis of total yield, such a variety might easily be worth millions of dollars to the country. A private farmer would not be justified in doing that for his own profit, but a public man, working in the interests of the whole country, can well afford to spend his time in such ways. Let them be encouraged to continue it, and let their work not be discounted because it fails of immediate commercial result.

### The Canadian Census.

The Census and Statistics Office of Canada is a branch of the Department of Agriculture, and its chief officer is Archibald Blue, in early days a newspaper man at St. Thomas, Ont., and then for years the efficient head of the Ontario Bureau of Industries at Toronto (now under the direction of Prof. C. C. James), which has an outstanding repute, because of the care with which information relating to the condition and results of farming in the premier Province is collected and compiled. It affords a guide to the Department in planning to meet the coming needs of the farm. In the larger Federal field, Mr. Blue's ripened experience has now a remarkable opportunity for statistical stock-taking at what is recognized by publicists as an epochal period in Canadian progress. In all branches of human activity, in the inflow of population and capital, the Dominion has been

advancing as never before, and 1910 bids fair to be an era-marking year to close the decade. The finishing touches are now being given by Mr. Blue and staff to the enumeration sheets for the census-taking of 1911. In relation to agriculture, more extended information will be gathered than ten years previously. For the last census, the services of some 8,800 enumerators, 351 commissioners and assistants, and 17 chief officers, were required, and the work next year will assuredly be greater. At the present time there are some 6,000 correspondents scattered throughout Canada on the lists of the Statistical Office, from whom information regarding crops, live stock, etc., is gathered, and published in the Census and Statistical monthly, along with official data from the heads of different branches of the Department of Agriculture, including foreign crops reports. The object of this system is "to procure and publish accurate information for the use and guidance of farmers all over the Dominion, and so to place producers, buyers and consumers upon a common level in the market places, as fully as information on the conditions which regulate prices can make them."

During the past year, Mr. Blue attended the meeting at headquarters, in Italy, where a great international Institute of Agriculture, or bureau of statistics, originally suggested by an American, Mr. Lupin, is being perfected. From ideas gathered there, using the results of the census of 1911 as a basis, a general revision and improvement of the present Canadian system of collating agricultural statistics may be expected. The United States is taking its census this year—the last, instead of the first of the decade—and the results will be on record for all sorts of comparison with Canadian progress, when heads and productions in the Dominion are finally summed up by Mr. Blue.

### Wonderful New Corn.

"Did the dear old 'Farmer's Advocate' ever hear of that wonderful seed corn, 'Mammoth Eight-rowed, Yellow, Black-eyed Flint'? Briefly, here is its history. Last spring, about the month of March, B. W. Loverin, of Greenbush, Ont., sold a great quantity around Markdale and vicinity, said by Mr. Loverin to be a new variety, propagated and brought to a state of perfection by himself. This corn, on the other hand, was never grown by the party in question; it was bought from J. A. Simmers, of Toronto, shipped to Mr. Loverin in bags to Bellamy's Station, on the C. P. R., and labelled, 'Eight-rowed Yellow,' cost per bushel in Toronto \$1.35. Same corn was taken home and put up in ten-pound sacks, was reshipped in barrels from Bellamy's to John Davis, of Markdale, and by or through him delivered to the farmers, at price \$1.50 per sack of 10 pounds.

"You have the facts; investigate, and if found as stated, sound a warning, as no doubt the same methods by the same party will be tried again the coming spring, it being not the first offence."

Inquiry satisfies us that the statements made in the above communication, received from a person who signs himself, "One of Your Farmer Friends," are substantially correct.

The seed firm of J. A. Simmers, Toronto, shipped, April 3rd, 1909, eighteen bushels of Mammoth Eight-rowed Yellow corn to B. W. Loverin, Greenbush, Ont., via C. P. R., to Bellamy's Station. This is all the seed firm knew about the disposition of the corn until communicated with by us. A considerable quantity of seed corn was sold around Markdale by one B. W. Loverin, and was delivered to buyers by J. M. Davis, of Vandeleur.

It is to be feared that the charges of deception and extortion are true. "The dear old 'Farmer's Advocate'" had not heard before of this particular game, but has had enough knowledge of other tricks of similar character to be ready to give presumptive credence to almost any such story of crookedness. The "skin game" mentioned in the letter is a very old one, but not so much worked in Ontario of late as in the Provinces of Quebec and New Brunswick. The fear of being made the laughing-stock of the community hinders some farmers from exposing the sharpers by whom they have been fleeced. Such sharpers are well aware of this weakness in their victims, and trade upon it. It is well to discount extravagant statements, no matter how plausibly put forth, unless made by some responsible person with full knowledge of the facts and a reputation to sustain.

### Automobilists and Good Roads.

There is a seesawing of forces in regard to automobile legislation in Ontario. On the one hand, such men as Valentine Stock, M. P. P., and others, representing rural constituencies in the Legislature, seek to have present regulations made more restrictive. Sir James Whitney is also understood as favoring some more drastic regulation of motor traffic, with a view to preventing some of the abuses still so common. A bill was brought in last year to prohibit the running of motor cars on Saturdays and part of Sunday, so that farmers might get to market and to church without molestation. That bill failing to become law, another is before the Legislature this session which aims at throwing greater safeguards around women and children driving (the man in charge of an automobile being obliged to come to an immediate stop when signalled by such persons), and at making more prompt prosecution of offenders possible; licenses to be carried, and not left at home, to have recorded on them any conviction for breach of law, and to be forfeited for a second offence. These efforts at further restriction are seconded by some county councils, who have memorialized the Government to that effect, and have the support of probably the great majority of farmers and their families throughout the Province.

On the other hand, the Ontario Motor League, a rich and powerful organization, is exerting influence in a contrary direction. Its members do not want greater restrictions, but rather less, and they are trying, honestly, we believe, to have their members carefully observe the law and behave like gentlemen, hoping thereby to mollify the antagonism which exists against their machines running on the public roads. Their efforts are not confined to changing public sentiment in their favor, or opposing legal restrictions. They are steadily and persistently exerting their influence to have the Provincial Government undertake the building of great highway trunk lines of macadam roads, extending from city to city throughout the Province. If they proposed to build and maintain these roads at their own expense, scarcely any objection would be raised, especially if new roadways were to be surveyed and used by themselves alone, although people whose property adjoined such roads might not relish the prospect of dust and stench. Most of those who drive horse vehicles would be overjoyed at such news. It would leave the present highways more clear for ordinary traffic. But that would be too good to be true. What they desire is to have these highways constructed at the expense of the Province, and for general use of all vehicular traffic.

Their efforts towards this end should not be pooh-poohed as being unlikely to amount to anything. Most of the members of the Motor League are comparatively wealthy, and are bringing pressure to bear on law-makers and on public opinion out of all proportion to their numbers. We have no wish to impute dishonorable motives to these gentlemen, but, as showing how well they have succeeded in their object thus far, we refer to the report of the Good Roads Convention, published in last week's issue, from which it may be learned that several officers or members of the Ontario Motor League had a place on its programme, and that a resolution in favor of their project was actually passed by that body.

It has been found that motor traffic is very destructive on even the best metalled roads. The surface binding is sucked up by the swift-passing rubber tires and sent flying, and even the layer underneath, with the great weight and speed of the machines, becomes disintegrated. In Massachusetts, surfacing with oil or tar mixture is being tried, with considerable success. But in any case a good motor road is expensive. It costs \$8,000 per mile as built in Massachusetts, and \$7,000 per mile in New York State. At these figures, or even at, say, \$5,000 per mile, a road from Toronto to Windsor would cost the Province about a million and a quarter of dollars. That is only one of many possible lines.

The income of the Province is limited. What would be the effect on other public utilities of such expenditure in this direction? In ten years the county road system has been aided by the Province to the extent of only \$700,000. Could those grants be continued or increased?



Gaer Conqueror.

Shire stallion. Supreme champion, London Shire Show, 1910.

**London Shire Show.**

This great event in the calendar of the English farmer took place February 22nd to 25th, in the Royal Agricultural Hall, Islington, London, and the display of massive drafters in all its sections was, as usual, a very interesting one. The Shire Horse Society is very strong in membership and money, and the classes at the show are filled to overflowing with entries competing for the numerous and liberal prizes offered, the prize-money at this year's event amounting to \$12,000. The stock sired by the celebrated Lockinge Forest King were again very much in evidence, and he has proved himself to be the Baron's Pride of the Shires. Four-year-old stallions had a class to themselves of 58 entries, and in this section Sir Walpole Greenwell had the first winner in the

**The French-Canadian Horse.**

By J. B. Spencer.

The French-Canadian horse, as a breed or race, is rather a matter of history than an active force in agricultural economy. There was a time when the horses of the Province of Quebec were composed largely of one type, and it was its discovered excellence that brought about in a large degree its degeneration as a breed. There are still within the Province, here and there, fairly pure representatives of the old sort, but among those that have been approved by the Inspection Commission for foundation stock for the new Studbook, the best, undoubtedly, possess the blood of other races. In some of the more remote sections of the Province in which agriculture is carried on in a more or less primitive fashion, there are to be found many small horses of the old type, but the owners of these, in not appreciating what they have, are taking no steps towards registration, so that, with the closing of the Studbook against uninspected foundation stock, these most pure of all French-Canadian horses will be lost to their race, in so far as a recognized breed is concerned.

The origin of the French-Canadian horse has been described by Dr. J. A. Couture, Secretary of the Live-stock Associations of Quebec. He states that the original stock was the best of the time available in France. In 1655, King Louis XIV., who was anxious for the welfare of the Colony, gave instructions to have twenty mares and two stallions despatched to Quebec from the Royal stables. Unfortunately, only twelve of the mares, along with the stallions, landed. Two years later, one stallion and two mares were sent out, and in 1670 a stallion and eleven mares followed. As years went by, other importations were made, to become the foundation of the French-Canadian breed. The horses remained the property of the King for three years, after which they were distributed among those who had done most to promote colonization and agriculture. It is firmly believed that the imported stock was derived from Arab, Turk and Barb races, from which have sprung the English Thoroughbred and the Hackney.

There are few horsemen of the old stock in Eastern Canada who cannot tell a good story of the excellence of the French-Canadian horse as he appeared thirty or forty years ago. Until then he was confined much to his own Province, but, as his good qualities leaked out, horse-dealers looked in and found a source of supply that took a deal of exhausting. It is claimed that in 1850 there were in Quebec fully 150,000 horses of the old breed; to-day it would be difficult to find one-fiftieth as many that at all approach in appearance and quality the old sort. Large numbers went into the Eastern States, many to the Maritime Provinces, and the Province of Ontario. In those days he was a well-shaped, powerful little horse, active and sure-footed, sound of wind and limb, and possessed of great endurance. Being rather low-set, he was easy on himself, and having to work hard in the fields in summer, in the woods in winter, and on the roads at all times, and never overfed, he was spared the evil effects of pampering. He stood but little over 15 hands high, and weighed from 900 to 1,100 pounds. His head, carried well up, was broad, and inclined to be strong, rather than fine; his eye, full and courageous; neck stout, body powerful, breast full,

Intertown trade by road practically ceased long ago. Even farmers do far less teaming than formerly, though radial leading roads into market towns are of great benefit to them still. But roads such as those proposed would be little used by the majority of farmers for the greater portion of their length.

noted Marden Jameson, by Dunsmore Jameson, the sire which alone competes with Lockinge Forest King. Older horses were classed as over four years and under ten, and divided into two classes, one under 16.2 hands, and the other over that height. There was a class for horses ten years and over. In the class under 16.2 hands there were 29 entries, and the first prize went to Forshaw & Sons for Royalist Count, by Calwich Blend. In the bigger class there were 44 entries, and A. Grange was first with the five-year-old, Gaer Conqueror, second award going to Lord Rothschild's Childwick Champion. In the class for stallions ten years and upwards, Lord Rothschild's Birdsall Menestrel, ten years old, was first. Three-year-olds had a class of 80 entries, with eleven money prizes. Sir Berkeley Sheffield was first with Slipton King, and Messrs. Ainscough's Tatton Herald, by Tatton Friar, was second. A two-year-old class of 107 entries had ten money prizes. Lord Winterstoke had first with Rickford Coming King, by Ravenspen, and Leek Forest King, by Lockinge Forest King, was second. Sir Walpole Greenwell had first for yearlings, with a son of Marden Forest King.

Championships.—The junior champion cup for stallions went to the first-prize three-year-old Slipton King. The reserve was Lord Winterstoke's first-prize two-year-old Rickford Coming King. The senior champion cup for horses four years and upwards, went to Mr. Grandage's five-year-old Gaer Conqueror. The reserve was Lord Rothschild's old horse, Birdsall Menestrel. The supreme championship gold challenge cup went to Gaer Conqueror, and Birdsall Menestrel was reserve. The junior cup for the best filly in the three younger classes went to J. G. Williams for his first-prize three-year-old, Bardon Forest Princess. The senior champion cup for mares four years and over was awarded to Sir Walpole Greenwell's great four-year-old, Eureka, by Hereford, and the supreme championship also went to Eureka.

**HORSES.**

**The Army Horse Problem.**

(English Correspondence.)

A conference of representatives of the various agricultural societies and the chief associations connected with horses has been discussing, in London, the question of the supply of horses for war purposes. There has been a considerable decline in horse-breeding in the last 30 years, especially in the lighter breeds, and in recent years the rapid introduction of motor-cabs in London and other cities has lessened the demand for horses to an alarming extent. The London Omnibus Company is disposing of its horses at the rate of as many as 150 a day, and motor omnibuses displace the older horse-drawn vehicle. The South African war took 400,000 horses, and in case of emergency, the Government would need from 300,000 to 500,000 horses within 12 or 18 months.

The conference recommended a much more liberal appropriation for the encouragement of horse-breeding than the present grant of £5,000. France spends £300,000, Germany and Austria £200,000 each for this purpose, and the suggestion was made that the United Kingdom could well afford £500,000 a year for such a laudable cause. Another proposal was that 50,000 brood mares throughout the country should be "ear-marked" for military purposes, and that such a subsidy should be paid to the owners as would prevent such brood mares being exported.

Whatever course the Government adopts must be done quickly, as the remount problem is a serious one. Ever since the South African war there have been many weedy-looking horses in even crack cavalry regiments.

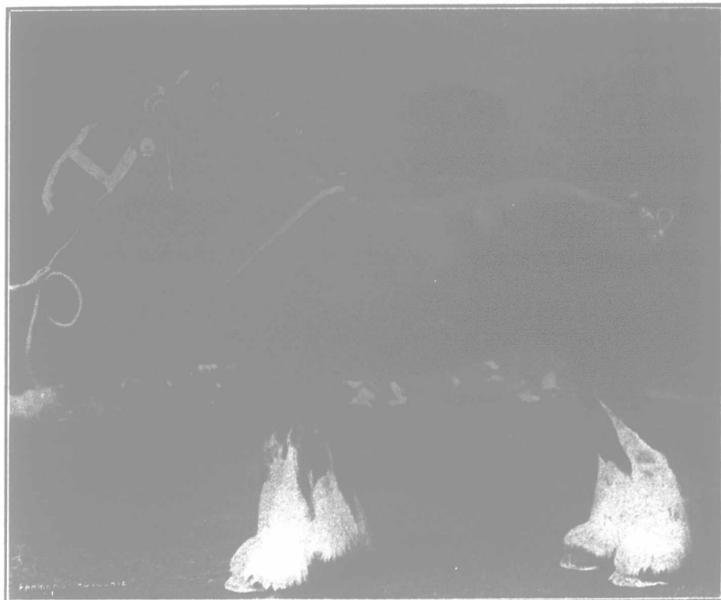
**SALE OF SHIRES.**

The first sale of Shire horses for the season took place at Peterborough, and brought out a large attendance. On the opening day stallions were offered, and there was a brisk demand, prices ranging up to 250 gs. for E. Green's "Moor's Chief." On second day, mares and fillies were offered. The highest price was 150 gs., for the three-year-old filly, "Marden Picotee," from Sir Walter Greenwall's stud.

The joint sale at Hinckley of 51 Shire horses from the studs of F. Farnsworth and M. Hubbard, was well attended, and good prices were realized. Several daughters of "Lockinge Forest King" were offered, and caused spirited competition. The total sum for the sale was £4,553 17s. Mr. Farnsworth's average for 26 being £77 13s. 10d., and Mr. Hubbard's for 25 head, £101 7s.

F. DEWHIRST.

Is clipping a good practice, or not? Reasoning by analogy, it looks unwise—like a person suddenly throwing off everything but his underclothes in March or April. Actual experience, on the other hand, seems to point strongly to the advantage of clipping. But does experience prove what it seems to prove? Where are we at?



Eureka.

Shire mare. Champion, London Shire Show, 1910.

shoulders rather short and not very sloping, back rather long, sides inclined to flatness, croup plump, quarters of medium length and drooping, muscles well let down, tendons large, the feet tough and sound. The French-Canadian horse wore a flowing mane and tail, and a tuft of hair on the heels. These latter marks of the breed are credited to the lack of warm housing in a rather severe climate. With better care, refinement in these points has been effected in the modern French-Canadian horse.

To the French-Canadian horse, both the Morgan and Standard-bred breeds are indebted. Vermont was the home of the early Morgans, and into that State a stream of good horse stock flowed over the border during many years. Vermont Black Hawk, a famous Morgan progenitor, is known to have traced to a Canadian horse named Paddy, described as having great endurance and speed, and weighing 900 pounds.

While the Standard-bred breed was in process of formation, a heavy exportation in horses was being effected from the southern counties of Quebec into the New England States. From 1860 to 1870 this trade was especially brisk. The Registrar of the French-Canadian breed, then a resident of Beauce County, states that American buyers would have notices read at the church doors on Sunday mornings, announcing their coming, and inviting those who had horses for sale to have their speed tested on the ice. Speed, style and age were practically the only points investigated, as unsoundness was almost unknown among the horses of the district. Many an old horse was exported in those days, it being difficult to tell a 20-year-old animal from one six or eight years younger. Thirty-year-old horses were common, and occasionally one several years beyond that age was doing duty at hard work. At that time, when ordinary work horses were selling at \$70 to \$80 per head, as much as \$250 was paid for speedy specimens that could not be got for less money. These prices were sufficiently high to lead many a habitant to part with his best specimens, which soon depleted the country of good ones, to the enrichment of the light-horse interests over the line.

While no wonderful feats of speed are credited to the French-Canadian horse, it is well known that famous trotters have descended from him. The great trotting queen, Maud S., is believed to trace through both sire and dam to French-Canadian blood. There is no doubt but that, through her dam her line of breeding goes to Canadian Pilot, foaled near Montreal, and from a French-Canadian mare. Through her sire, the tracing leads to a horse of unknown breeding, believed to have come from Quebec. This is but an example of many cases that could be cited.

For want of organization or concerted action on the part of Quebec horse-breeders, the identity of the old breed was in large measure allowed to be lost. Having parted with most of the best specimens, many found their horses small for hauling the big loads of logs, and, to improve them, introduced draft blood. Others, again, were led to patronize weedy trotters with records, until the once noble race has been displaced in many cases by nondescript mongrels.

Realizing what had happened, steps were taken in 1885 to revive and preserve the original strain. At the urgent request of Dr. J. A. Couture and others, the Hon. Dr. Ross, Prime Minister of the Province, established a studbook. Its management was entrusted to a commission composed of M. J. A. Lesage, the Assistant Commissioner of Agriculture, and four other gentlemen, namely, Dr. J. A. Couture, and Messrs. Casavant, Barnard and McEachran. Little progress was made until 1895, when the French-Canadian Horse-breeders' Association was formed, and the work of inspection inaugurated. Up to 1905, six hundred and twenty-eight (628) stallions and eleven hundred and seventy-three (1,173) mares were registered.

Upon the nationalization of Canadian Livestock Pedigree Records, the French-Canadian Studbook was, along with other records, handed over to the Federal Department of Agriculture. Observing that many of the horses recorded in the Quebec book were off-type for the breed, the Minister set about the securing of a better state of affairs. The Association agreed with the proposal to have a reinspection of all registered horses for foundation stock for the new Studbook. A commission was consequently appointed, consisting of two representatives of the Association and two of the Department of Agriculture. Those representing the Association were, Dr. J. A. Couture, of Quebec, and Arsene Denis, of St. Norbert; while Robert Ness, of Howick, and Louis Lavallee, of St. Guillaume d'Upton, represented the Department of Agriculture. Dr. J. H. Vigneau, of Three Rivers, was delegated to examine the horses for soundness, and also to do the secretarial work.

The standard upon which the commission worked was as nearly as possible that of the old French-Canadian horse. The maximum height for stallions was 15.3, and for mares 15.2. The weight preferred was between 1,100 and 1,350 pounds for stallions, and 1,050 and 1,250 for mares. All evidence of draft-horse blood was taken as dis-

qualification. The work of the commission is now practically completed.

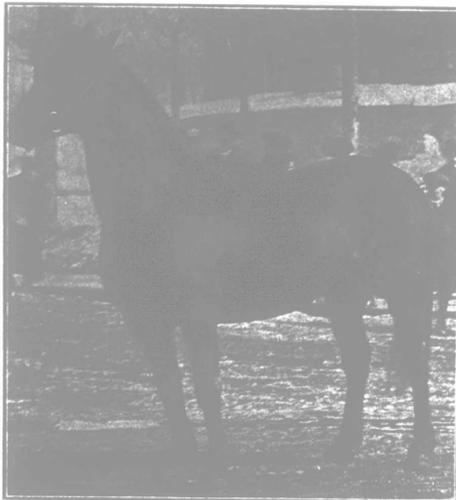
There have been presented before the commission almost 3,000 horses, about 480 of which had been registered in the old book. Of these, 1,050 have been accepted, of which 760 have been duly recorded, in addition to about 50 recorded as progeny of recorded stock. It will thus be seen that a large number which had been in the old book have been refused entry to the new. In future, registrations will be granted only to the offspring of duly registered sires and dams. The great bulk of accepted horses are in the Province of Quebec, but there are a small number in Ontario, half a dozen in Manitoba, and a few head in Alberta.



Brilliant Argente.

Champion French-Canadian stallion, St. Hyacinthe, Que., 1909.

To further encourage the breed, the Minister of Agriculture granted substantial financial aid towards the holding of a show in 1908, and again in 1909. The former, which was held at St. John's, had 125 entries, and the latter at St. Hyacinthe, about an equal number. Exhibitors had prepared carefully for the contests, and much could be said of the displays made. They may be described as general-purpose horses of an excellent class, fairly uniform in type, and sound. As indicated in the outset, in practically all of the prizewinners there was fairly conclusive evidence of blood foreign to the original French-Canadian breed.



Brilliante.

French-Canadian mare, 5 years old; 14.3 hands high, weight, 1,150 lbs.

Dogs are about the most privileged creatures in Christendom. They are allowed, with impunity, to do things on other persons' property for which a human transgressor would be haled into court. The liberty which they are habitually and almost unavoidably accorded endangers human safety and live-stock property. Yet, when a dog-owner is taxed a dollar or two, he seems to consider it a grave injustice, and will evade payment if he can. The writer of this paragraph confesses to a passionate fondness for dogs, but submits that, in all conscience, they ought to be taxed, the money thus collected constituting a general fund to reimburse sheep-owners and others who suffer from canine depredations.

## LIVE STOCK.

### Essentials to Success with Pure-breds.

"Shall I go into pure-breds?" is what many are debating in their minds to-day. It is a question on which many dairymen are writing me for my opinion. It is easier to write one letter to "The Farmer's Advocate," which thousands may read, than write a hundred letters for as many people. At best, I can but place before those interested the basic principles which make for success. It must ever be borne in mind that pure-breds have attained their superiority from having

received the proper care to develop the traits desired, which, in the case of the milk cow, is to develop the milk-giving instinct. With good care and selection, and mating of the best performers, the milk yield has been greatly increased. In order, then, to maintain this improved yield, the same methods must be followed; that is, continued good and proper care, with selection and mating of the most fit. This would appear to be so obvious that it would appear unnecessary to state it. But the fact is we see continually many who own pure-breds giving them but scrub care. The re-

sult is, of course, they are soon scrubs; hence, we have the term, registered scrubs.

Although many have marked success with pure-breds, others do not, and the reason is they do not give their stock the proper care. The result is that many overcautious but good caretakers are afraid to go into pure-breds, for fear they will be unsuccessful. The result is they do not make the progress they might, which is their personal loss, and also a loss to the State. There are several who go into pure-breds that do no good to themselves or the breed they take up. But very many are having a fair amount of success with grades because they are good caretakers, and they would have much greater success if they purchased good pure-breds, because then they would get the benefit from the work of others gone before, and the many years that have added to the breed's increased yields. And this power to give increased yields has in a measure become fixed, and will stay so as long as the good and proper care is followed. Even from the reproduction point of view, a good pure-bred is much more likely to produce good milkers than a grade, even if the grade happens to be as good a milker as the pure-bred, because the pure-bred has many generations behind her, whilst the grade, very likely, a generation or two back, traces to very indifferent ancestors.

A grade cow is always a grade; there is no provision now to register anything in the cattle line, no matter how many crosses of pure-bred blood it may have. Though many good milk herds can be built up, they must be valued for their milk, mostly, the calf being worth but a few dollars, whilst the pure-bred calf is worth much more. And, as it does not cost any more to keep the pure-bred than the grade, the pure-bred, through both her milk and calf, can make a much larger return. The only difference is the pure-bred costs more to buy, and it takes many more dollars to buy a pure-bred herd; but, when rightly and properly handled, the pure-bred returns the biggest profit, by far.

As good a test as we can have, as to who is likely to be successful with pure-breds, is to know what has been his success with grades. No one who has not been fairly successful with grades is likely to be successful with pure-breds, unless he changes his methods at the same time; and I think it would be better for such ones to make the change before they go into pure-breds. Several men of wealth desire to make a hobby of breeding registered stock. Their main chance of success will depend upon the ability of the foreman they get; that is the biggest factor. It is management that counts. Genius has been defined as the ability to take infinite care, and it is that kind of genius that is wanted to make a success with pure-bred stock.

I am asked what could one expect to make out of good pure-bred milk cows? This is not easy to answer, as cows run all the way from 5,000 to 25,000 pounds, and even over, milk yearly. There is room for a wide range, and the man is an important factor, as well as the capacity of the cows selected. However, in order to learn to shoot straight with the rifle, it is necessary to

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have a target; then, practice and ability will have a chance to show. Perhaps the reason of many people's lack of success in life is that they do not have a target, but shut their eyes and blaze away, and are as likely to kill as many friends as foes. This does not lead to success in sport, and does not in business, either. Therefore, we should have a target, and, if we get skillful with practice, we may make a good percentage of bull's-eyes.

So, when I state what one can hope to make out of dairy cows, it is what can be accomplished if one has had practice, and a fair measure of skill and application; with many cows ranging from 10,000 to 25,000 pounds milk yearly.

It would be possible for a man who was satisfied with a small business to get six cows that would give about 90,000 pounds of milk yearly, or an average of 15,000 each. They would need to be good cows, and to receive the best of care, which would include milking three times a day for four to six months. There is hardly a limit as to what can be gotten from cows when they are handled correctly. This work would mean about 90 per cent. bull's-eyes.

The trouble is most people have too much to do to do thorough work, and they chase around trying to save ten cents, at the same time trampling on quarters. Now, to feed these six cows, by growing corn for silage, roots and alfalfa, enough of this feed could be grown on six acres. Corn, roots and alfalfa are all large yielders, when given proper care; a wonderful lot of food can be grown on a few acres, and it is the proper food, too, for the cow. There is nutriment, succulency and variety in these foods, and the time of growing and harvesting comes at different dates, giving a man a chance to attend to all properly, without being overworked at one time and slack at another. A man could do this work as a pastime. He could even find time to grow an acre of strawberries, and thus make more than enough to buy what bran and meal these six cows would require. The milk of these six cows would be worth \$1,000 or more, and their calves (pure-breds) would be worth as much more. There is never any trouble selling calves from cows giving over 15,000 pounds of milk yearly. This is the possible with good pure-bred cows. Greater might be possible if one were skilled enough to make all bull's-eyes. This, I figure, is a 90-per cent. score, but even if one made a score of 75 per cent., he would be doing fairly well. Better to have a target, anyway, and thus improve with experience. Without a target, we see those blazing away; their eyes surely must be shut, also, when, to get this quantity of milk (90,000 pounds), instead of six cows, twenty or thirty are kept, and instead of producing the feed on six or seven acres, a couple of hundred acres are worked.

What is to be done with the large farms, if so much is produced on so little? One might turn the rest of the farm into a golf-link. The only trouble is, the man producing so much on the small acreage would have all the entertainment and sport he wanted, without playing golf. This is not a fairy story, nor yet am I practicing to write patent-medicine ads. Let no man be discouraged because his acreage is small and he thinks his opportunity is limited. Great results are being accomplished in other countries, and can be accomplished here. Everyone can tell how well a cow does in June on pasture, yet the feed she gets is not so very high in nutriment; but with that feed she gets the purest of air, a balmy and invigorating temperature. We talk about the protein and fat in the feed, which are all very necessary, but oxygen of the air is the "elixir" that fructifies the whole. Large-milking cows do better in winter than in summer, because the temperature can be controlled, and, when supplied with proper feed and pure air, we have the essentials. But many, instead of supplying the pure air, and thus the oxygen required, supply their stock with impure air, which contains carbonic acid, oppressive to the animal. The effects of impure air we will deal with later.

**Loose Feeding Preferred.**

Editor "The Farmer's Advocate":

This is the sixth season we have fed cattle. We feed from twenty-five to thirty head each year. We run twenty head loose in the yard under the barn, which is 32 x 54 feet, and they seem to have plenty of room. The remainder are tied in stalls. Two and three have been tried in box stalls 11 x 12 feet, but it was impossible to keep them reasonably clean. The loose cattle are fed in racks from a chute on the barn floor. There is one rack in the center of the yard, 6 x 20 feet, and another on one side 3 x 20 feet. The water is pumped by tread-power into a large tank, and run from it to a trough low enough for them to drink out of.

You can feed twenty head loose in the same time as ten tied can be fed, and the manure has to be handled but once. We run the horse manure out to the feeding yard, where it serves two purposes: it helps to keep the cattle clean, and also mixes the manure and keeps it from heating. We can drive in or through the yard, and fill the

manure in sleigh or wagon, and draw to the field any time the ground is fit to drive on.

Our cattle have always gained more when fed loose. They are always bought by weight in the fall, and usually weighed when turned on the grass, and the loose-fed have made an average gain over those tied of from fifty to seventy pounds each.

H. C. C.  
Peel Co., Ont.

**Loose-fed Cattle Better Fleshed.**

Editor "The Farmer's Advocate":

I have had experience for seven seasons with feeding loose from thirty to fifty export cattle. Previous to that, for many years, I had had some tied and others loose fed, until I became convinced the latter method was preferable.

The number of steers in each compartment ranges from six to twenty, according to the extent of floor-space. Each steer is allowed about fifty square feet.

The steers are tied by stanchions for about one hour while eating. The stanchions are closed, preventing the cattle from putting their heads into the manger while they are being fed. One lever ties twenty cattle at once, as easily as six.

The manger, with cement bottom, is one foot higher than the cement floor which the cattle stand on.

The cut feed is taken from the feed-room by means of a truck and box large enough to hold feed for twenty-five head.

The cattle drink out of a cement or galvanized trough at the side or one corner of their apartment, the top of the trough being about 2 ft. 8 in. from the floor. A scantling is bolted to a post six inches from the trough, to protect it from the filth of the cattle. The water is gauged by an automatic float at one end of the trough, and is protected from the cattle. Galvanized piping is run from the troughs to the elevated supply tank, into which the water is pumped from a rock-well by a windmill.

The cleaning is done in part by a litter-carrier, and a boat or sleigh is used where we can drive from one end of the stable to the other.

I find that gains can be made cheaper with loose cattle than with those tied, because they consume a larger quantity of roughage, the cheaper class of food. The use of the muscles tends to develop them, permits the fat to become interlined in muscle or tissue, commonly called lean meat, which is then termed flesh. The latter, being firm and weighty, and very palatable, the meat, therefore, commands the highest price. On the contrary, tied finished cattle are flabby; the fat is light, usually patchy, and the cattle are unable to stand the long journey across the sea. They can stand the feeding without becoming crippled, when fed loose.

The amount of bedding required I reduced to a minimum by cleaning the stables every day, and by using more bedding on Sunday, or scraping the litter to a corner until the following day. The manure is spread on the fields as it is made, except when the ground is soft. While stables are being cleaned, the cattle are turned out of doors, the weather governing the length of time they remain out for fresh air.

The labor is made about equal to that of stall-feeding by having everything handy. The door is thrown open. There are not cattle to tie or untie. A broad hand scraper soon scrapes the manure in heaps on the cement floor, where it is removed with a broad fork to the litter carrier.

There is but one disadvantage: While a stranger is inspecting your loose cattle, he is likely to soil his shoes.  
A. B. McDONALD.  
Middlesex Co., Ont.

"Let me say that I consider your paper the best for the money published in Canada, for the farmer, and no farmer can afford to be without it."—W. S. Pineo, Annapolis Co., N. S.

**Hog-raising in Kent and Essex.**

Editor "The Farmer's Advocate":

Farming has been, in the last twenty years, to a great extent, revolutionized. Year after year, as labor becomes scarcer and more expensive, machines have taken its place. Necessity has prompted invention. From 20 to 30 years ago, the farmer's idea of a pig was a great, coarse-boned animal, which, when fit for market, was from a year to eighteen months old, and weighed anywhere from 250 to 400 pounds. The farmer produced these results by keeping the hog in a closed pen, in a semi-starved condition, until he considered him large enough to fatten. In most cases he paid no particular attention to the pig's quarters; anything was good enough for the pig, cold weather or warm. So long as the pig did not break into the corn field, everything was all right. If he did happen to break in, the whole family were marshalled in an attempt to save the corn from destruction. Isn't it funny what a difference a few years make? To-day, the hog-raising industry in Kent and Essex Counties is one of the first topics discussed at Farmers' Club meetings. Pigs are handled as carefully as newborn lambs.

After farrowing, the sow should be shut up with her young for a week, after which a small hole should be provided for the young to get out and in at will, and the sow fed chopped corn, oats and shorts, all she will eat. In another week, place a trough for the little pigs, with low edges, and put chopped oats in it, having mixed the chop in a pail and poured off the hulls. The young pigs soon learn to eat, and the weaning period has practically commenced. By the time the pigs are seven or eight weeks old they can be weaned, most farmers favoring eight weeks. In weaning, do not shift the pigs; leave them in their old quarters. Remove the sow after weaning, and feed them chopped oats and shorts, and a little sour milk, if possible, four times a day, feeding just enough each time so they will eat it up clean. Give them as wide a range as possible.

If they are a spring litter, a clover or alfalfa pasture is excellent, and in August on a wheat stubble, oat, or even barley stubble, they will pick up most of their living. When they reach about 80 or 100 pounds weight, start feeding them corn in the ear, or, better still, turn them into the standing corn to finish. Hundreds of acres of corn are fed in this way in Essex, and once a farmer tries it, in competition with husking the corn and feeding it, he will never husk again, where it can be helped. Another method, dispensing with husking, which is growing in favor amongst the farmers, is that of stacking the corn, and feeding it, fodder and all, to the pigs. They will take on flesh faster in this way than when fed in the ordinary fashion. In feeding corn in the ear, one is apt to overfeed or underfeed. A pig with a pile of ears before him will eat too much, and go off his feed, but when he takes it out of the fodder, and gets enough, there being no more in view to tempt him, he stops. Some farmers use two yards, and let the pigs go through and take the corn out first, and the cattle follow and eat the stalks. Others use a feeding floor for the hogs, and lift the stalks off and feed them to the cattle after the hogs are through. This is the most popular way, as the cattle will eat the fodder up cleaner. In either case they do not waste a tenth part.

The farmers aim at a 200-pound hog at six months old, although it is not rare to see them reach the 250-pound mark at that age.  
Kent Co., Ont. R. A. ABRAHAM.

An International Sheep Show, to be held in Chicago in September, after the larger fall-fair circuit is over, is, we are informed, being projected, and is said to be meeting with favorable consideration on the part of Canadian breeders and importers. Further particulars are given in our Gossip columns.



Hogging Down Corn in Minnesota.

### Advantages of Loose Feeding.

Editor "The Farmer's Advocate":

Having had experience in loose feeding for ten years, and with forty head of export cattle each winter, my opinion of this system of feeding will probably be of interest to some of your readers.

I feed three times a day, silage and cut oat straw mixed, chopped grains (1 of corn, 1 of barley, 2 of oats, by measure), and turnips uncut morning and night. At noon the cattle get meal and all the hay they can eat, clover and timothy mixed, and of good quality. The quantity of the meal ration is about one pound per each hundred live weight of cattle per day, the last two months. Of course, at first it is very much less, being about two pounds each per day, and gradually increased.

I consider loose feeding vastly ahead of the tied system, for a great many reasons, which I shall enumerate as they occur to my mind. It most nearly approaches the natural conditions of feeding, as in pasturing. The animals like to pick about and select, as it were, what is most suitable to their individual tastes, and, in thus moving about from one manger to another, will eat and fill-up more than if tied. This filling-up is a very important part of cattle-feeding, as all good feeders know, for if the bullock doesn't eat well plenty of roughage, and fill up till he will lie down and grunt, he is not going to get fat, or at least put on the gain he should. Now, there is no comparison between the systems of loose and tied, as far as filling-up goes. Men will come into my stables and say, "My, how full your cattle are," "Is that steer bloated?" and, "I can't get my cattle to fill up like that." No, they can't, because their cattle haven't the needed exercise to make them fill up like this; they haven't a chance to pick about till they think they have gotten all the good things there are for the whole row. Again, some cattle will eat more of one thing than another, and vice versa. I say, let them have it; their appetite craves it, and their system demands it, in order to put on the maximum gains. But they will say, "Won't some steers get more than others?" Yes, decidedly so. They know better how to feed themselves, as to quantity, than the feeder does. Some bullocks have greater capacity for feed than others, and will put on gains accordingly. Go into my stable at night, an hour after feeding, or after any of the feeds, and you will hear them grunting and puffing as though very uncomfortable, and frequently I see a beast lying stretched right out, like a young colt at pasture. They can't do this tied; they haven't the freedom and comfort; can't lick, scratch, rub, and tear up and down the stable when they feel like it. Do the most you can to add to the animal's comfort, and get his stomach well filled with the proper ration of meal and plenty of roughage, and he will put on the beef. The exercise obtained by being able to move about develops a more evenly-fleshed carcass, not so inclined to be patchy. No tied cattle would ever carry off the grand championship prize for carload lots at the International, that court of last resort in the feeder's art.

It requires a lot of straw to properly bed loose cattle, and (well bedded is half fed) a steer won't gain well unless he is lying down a good part of the time, and he won't lie down unless fairly well bedded. He doesn't want to be plunging to his knees every step.

About fifty square feet of space for each bullock is what my cattle have, and they do quite well with this, but more can be put in if you have lots of straw. However, I think this about the least I like them to have.

The number in a stall makes no difference, in my opinion, providing they have the space and manger room, and are cattle of about the same age and weight. I have four stalls into which I put numbers from four to fourteen or sixteen, and I see practically no difference. Be sure to have the manger of a very generous size (mine are not big enough). It should be not less than 30 inches wide in bottom, with front sloping out; then they can't throw hay out, and no fear that they won't be able to reach their feed. Allow about 30 inches running manger space for each animal, and board all up but 16-inch spaces for cattle to put heads in. Always have a few more feeding places than number of cattle in stall, and keep a lump of rock salt in one end of manger, to which they can always have access. Have manger three feet high, so as not to have to clean out stalls too often. They can eat till manure is level with manger bottom, or nearly so. I clean out once in the winter, and after cattle go out in spring. Have water in stall; one small basin is enough, with water supplied from large tank through float.

The advantages are: Not half the work; no cattle sickened or off-feed, and better gains. The hardest and most disagreeable parts of attending a big stable of cattle tied are cleaning out stables, and tying in when let out to water. When loose, they are just to feed and bed, seeing that the water-boxes are clean. It is just exercise for one man to attend forty or fifty head of cattle when fed loose. As to amount and cost of gains, experiment stations here and in the United States

have proven the largest and cheapest gains with loose feeding. My gains on forty head, with five months' feeding usually average 300 pounds, and, of course, individuals make very much larger than that, and others, of course, smaller.

I never have any cattle sick or off-feed, or bloated; no trouble in these ways whatever. Toward the finishing period, should one not come up to eat for one meal, the others eat all up clean, and by next meal time he is ready for his feed; whereas, had he been tied, with his feed put before him, he might have eaten it up, and then been sickened or off-feed—starved, as my father used to call it. There are never any starved cattle when fed loose.

The manure from a loose pen is rather hard to fill, just on top. After getting down in, it fills quite as easily as from a barnyard heap. Have doors 8 feet wide, to admit wagon or sleigh right into stalls. The manure in a loose box does not heat, as it is tramped too tight, and, as the liquids, solids and straw are thoroughly mixed, it is of the best quality. Of course, it is the quality of the feed that makes the quality of the excreta.

Oxford Co., Ont.

### Bovine Tuberculosis in England.

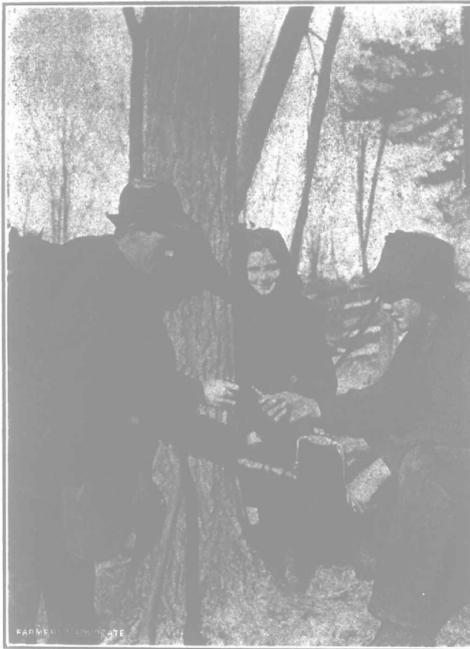
How prevalent tuberculosis is among dairy cows in England is indicated by 73 samples of milk being found tuberculous out of 676 samples examined by the Health Department of the London County Council. In addition, a veterinary inspection of 4,455 cows on 184 farms supplying milk to London, resulted in 74 cows being found suffering from tuberculosis of the udder. The medical officer strongly urges the early re-introduction into Parliament of the Dairies and Milk Bill, which was one of the innocents slaughtered in the last session, owing to lack of time for consideration.

## THE FARM.

### Syrupmaking Then and Now.

Editor "The Farmer's Advocate":

An article has been solicited from my pen on the manufacture and cost of manufacturing maple sugar, syrup and wax. Although I have not so large a business as some of my neighbors, I have been in the business a considerable length of time, beginning with the birch bark for catching the sap, and pots on an open fire for boiling, which



Tapping the First Tree.

made the business quite laborious. The barks were placed on the snow, and as that melted they, on reaching the ground, were some considerable distance from the tap and sap-spout, which gave the wind a chance to blow the drop on the wrong side of the bark. After many years we procured a pan set on an arch or furnace for boiling the sap, which we caught in tin kettles hung to sap spouts, which were of metal, instead of wood.

Finally, I procured a modern sectional evaporator, size 3 x 10 feet, for \$100. My sap kettles cost from \$10 to \$12 per hundred, with sap spouts. This price does not include the covers, for which we purchase the tin and make at leisure. I have between 500 and 600 kettles, which I hang on trees from 2 feet to 8 feet in diameter.

I gather with tin buckets, and carry it to the camp on a sled drawn by a horse. My hauling tubs have faucets to empty them.

We build our camps on a slope, so that gravitation will carry the sap into the tank, without lifting the hauling tub from the sled. As my sap leaves the hauling tub, I strain it through flannel, and again I strain it as it flows into the tank that feeds the evaporator, which is below the main tank. Again, I strain the hot syrup through flannel, to remove a sediment called sugar sand, which is a combination of malic acid and lime, I believe, always present in maple sap.

For the next season I have procured felt strainers to strain the syrup, and will strain the sap through cheese-cloth. When we strain through the flannel, we find it necessary to use a settling tank. I use a pot for making sugar. For an arch, I used sheet-iron, in shape like a section of pipe, set on end on a brick-and-mortar base, just large enough to receive the bottom of the pot, so that the flame cannot reach the sides of the pot, with a door in one side and a pipe in the other leading to the smokestack of the evaporator arch, which, being tall, gives it a good draft.

The size of my camp is 16 x 20 feet, with a woodshed on the end of it about 10 x 20 feet, with a trolley to carry the wood into the main building.

The average annual yield of sugar is about one pound per kettle. On some large trees we hang two buckets. The sugar is worth 12 cents per pound. We purchase syrup cans for 12 cents, and sell the syrup in can for \$1.25 per gallon. One gallon will make 9 pounds sugar. We test the density of syrup and sugar with the thermometer, which makes it of a uniform quality, or consistency.

Now, this yield is over and above much that is consumed by the operators and visitors, as those who have sampled any of these delicacies know that they are a luxury in the sugar-camp, as well as elsewhere. The prices that I have quoted are local, and are advancing. D. W. DIMOCK.

Cumberland Co., N. S.

### Mutterings Not Loud, But Deep.

THE POORHOUSE IN SIGHT.

Editor "The Farmer's Advocate":

I am late in sending subscription, on account of hard times. Please do not say, as some people do, that if a farmer cannot make money now, with prices where they are, he had better get out of the business. What about the big wind-storm we had last spring, that put our old rail fences out of business, which had to be replaced with wire? How about the old barn that lost most of its shingles in the same storm? Of course, it is easy to forget the terribly wet spring and dry summer. And who knows but that some of the tile manufacturers will donate to some of us farmers four or five thousand tile, as partial compensation?

I am not a grumbler. I once worked with a man for five years who often said I was the most hopeful person he ever met. No, it is just a case where history repeats itself. Fifty years ago my grandfather was asked how he was getting along farming. He replied he was not farming, but was just getting ready. So with myself—I am just getting ready. I work enough, and read everything in "The Farmer's Advocate," and bulletins, until Professors Geo. and Wm. H. Day, and C. A. Zavitz, are just as familiar to me as some of my neighbors.

Well, what does it all amount to? Where is the rub? Well, it is just in this, that people are everlastingly yipping about the rich farmer. We are continually reading about such men as S. A. Freeman, with his three hundred acres of land and seventy milk cows. In fact, everything a farmer grows is made the subject of boast until his crop is sold, and then the other fellow reaps the profit.

Now, I am not criticising such men as Mr. Freeman. They certainly deserve credit. But usually their experience is of very little use to a poor farmer on the road to the poorhouse, with "The Farmer's Advocate" in one pocket and a bulletin in the other. A YANKEE BADGER.

Oxford Co., Ont.

### Muck on Corn Land.

Editor "The Farmer's Advocate":

I have been drawing muck about a mile, putting it on next year's corn land. O. A. C. advised to try it at about 20 tons per acre, and gain knowledge by experience. Would be pleased to hear from any of the "Readers" the results of their experience. Ours is a sandy loam; we expect to put 12 tons of farmyard manure per acre along with it. We are greatly interested in the Essex Corn-growers' Association, and wish them every success in raising Canadian-grown corn. Our attempts at raising dent-corn seed have not been very successful. We read and re-read "The Farmer's Advocate" and Montreal Witness carefully—two dear old friends. Our young folk are greatly interested in the dog-muzzling business. We all hope the order may be countermanded in time to allow farmers' dogs in the spring, to do their

special work of catching ground-hogs, chipmunks, mice, etc., and driving the cows to and from the pasture.  
R. ANDERSON.  
Simcoe Co., Ont.

**Good Results from Superphosphate**  
Editor "The Farmer's Advocate":

Seeing various inquiries in recent issues of "The Farmer's Advocate" re the use of artificial fertilizers, and having done a little experimenting along this line, I thought perhaps the results obtained might prove of interest to some of your readers. I may premise by stating that I had some experience in the use of fertilizers, 25 to 30 years ago, in England, so that, although an 18 years' residence in the West had caused this to be little more than a memory, I was not altogether a stranger to their use. Now, after eight years spent in this Province, I am quite convinced that we shall find the use of some artificial fertilizer of very great benefit and profit. My attention was first called to this subject a few years ago, by noticing the great difference in results obtained by the use of different kinds of manure. On mangels, for instance, a very light dressing of hen manure would practically give double the yield that ordinary mixed manure of best quality would. On white turnips, pig manure made all the difference between a good crop and no crop at all, the other manure being all out of the cattle stables or calf pens, and put on thicker. But on rape the difference was only noticeable during the early stages of growth, and in the ultimate crop was scarcely discernible at all. I do not know whether my inference is correct or not, but to me this signified that there was some element of plant food lacking, which was either more plentiful in the two manures mentioned, or was more readily available, than in ordinary mixed manure. I obtained an analysis of hen manure, but this did not help me, as the various constituents appeared to be present in about the same proportion as in barnyard manure, so the only means left to find out what really was needed was to try various fertilizers and note results. In spring of 1908 I obtained from the Experimental Union, Guelph, six different fertilizers or mixtures for use on potatoes. The experimental plot contained eight rows, 66 yards long, and was located nearly in the middle of four acres of potatoes. It was manured like the rest of the field, with about 12 loads per acre of barnyard manure, plowed under on oat stubble. Drills were opened with double mould-board plow; fertilizers sown in drill, except nitrate; sets dropped by hand, and covered with harrows. After-treatment and cultivation the same as rest of field. One of the eight rows had no fertilizer (it was used as a check), and one received barnyard manure at the rate of 20 tons per acre. Potatoes were dug by hand, and carefully weighed. Soil was sandy loam, and at one end of plot was decidedly thin. Now, for results, which I will give in yields per acre:

- First Row—Superphosphate (or acid phosphate), 320 pounds per acre; yield, 297 bushels.
- Second Row—Muriate of potash, 160 pounds per acre; yield, 243 bushels.
- Third Row—Mixture, 220 pounds per acre; yield, 267 bushels per acre.
- Fourth Row—Check row; yield, 215 bushels.
- Fifth Row—A complete fertilizer, 320 pounds per acre; yield, 243 bushels.
- Sixth Row—Special potato fertilizer, 320 pounds per acre; yield, 260 bushels.
- Seventh Row—Nitrate of soda, 160 pounds per acre; yield, 247 bushels.
- Eighth Row—Manure, 20 tons per acre; yield, 292 bushels.

The check row would show the yield per acre, without any extra fertilizer, to be 215 bushels, and the estimated yield of three acres of Empire State, in which the plots were situated, was 213 bushels, so that the plots would seem to be a fair average of the field. The cost per acre of the fertilizers was, I believe, \$4.20; I know that to be the value of the superphosphate, purchased in one-half-ton lots, freight included. If there is one fact more than another emphasized by these results, it is that no one can tell what fertilizer will give the best results until he actually tests them. Probably a majority would have guessed a mixture, and the remainder would have banked on potash, or special potato fertilizer, and yet superphosphate is away ahead of them all. The increase for this was 82 bushels per acre, which, at 30 cents per bushel, would amount to \$24.60, a profit of a trifle over \$20 per acre. The extra application of barnyard manure would, in this case, appear to be worth \$1 per ton, which I hardly consider profitable. While all the fertilizers paid for themselves, the margin was so small (as for potash, \$4.20 over cost) that some would hardly pay for cost of application.

Last season I tried the fertilizer experiment on turnips, obtaining the material as before, from the Experimental Union. There were four fertilizers, barnyard manure, and one plot without anything, making six plots in all. The field had been rape the year before, but as it was not as clean as I wished, I put a second hoe crop on it. It

was manured with about 12 loads per acre during the winter. Before plowing, I staked off one plot and added barnyard manure at the rate of 20 tons per acre, additional to that already applied. After the land was plowed and thoroughly harrowed, the other five plots were staked off, and the fertilizers applied broadcast (except the nitrate). Land was then drilled up, and seed sown with turnip drill in usual way. Nitrate was sown after plants were 3 or 4 inches high. Results were as follows:

- 1. Barnyard manure, 20 tons per acre; yield, 18 tons 1040 pounds.
- 2. Superphosphate, 320 pounds per acre; yield, 21 tons 880 pounds.
- 3. Nothing; yield, 11 tons 400 pounds.
- 4. Muriate of potash; yield, 12 tons 1120 pounds.
- 5. Nitrate of soda; yield, 8 tons 1,200 pounds.
- 6. Mixture (potash and superphosphate), 240 pounds per acre; yield, 12 tons 1,600 pounds.

Land, sandy loam. I am not quite sure of rate per acre of potash and nitrate, but the value of all was the same per acre, viz., \$4.20. As in the case of the potatoes, the check plot proved an accurate gauge of the field yield, the whole piece yielding 11½ tons per acre. I am not able to explain why the nitrate plot produced less than any other, but I don't blame the nitrate; probably the season was adverse for getting results from nitrate of soda. There was scarcely any rain through the summer season. The other fertilizers being covered in the center of the drills, were not so dependent on rain. These plots were a source of continual interest all through the season; the plants on the superphosphate plot took the lead at once, and were ready to thin nearly three weeks ahead of the rest. A little later in the season the heavily-manured plot gradually gained, until it appeared equally luxuriant, and it looked like a neck-and-neck race between these two. Quite late in the fall the potash plot made a spurt, and ended up with a dense growth of top, but the effort came too late, and failed to do much towards increasing the size of the bottoms. In addition to these plots, I sowed a pailful of superphosphate in another part of the field, the results being apparently the same, though I did not weigh these. During the early part of the season the plots treated with superphosphate could be readily distinguished from a quarter of a mile away. I also tried treating grain and corn crops with superphosphate, but no results were visible to the eye, and I greatly doubt the possibility of getting paying returns from grain crops by the use of artificial fertilizers. That they have a place in the growth of root crops, I am quite convinced, but not as substitutes for, but rather as supplementary to, barnyard manure. I hope other farmers who have experimented along this line will give us the benefit of their experience, especially any who have tried applications on grass land.

There is no doubt that different soils will show widely-varying results, and the season also will probably affect the returns very materially. Also, the special needs of our various crops differ, so that, altogether, the question is a very wide one, and will bear a great deal of discussion.

ALFRED HUTCHINSON.

Wellington Co., Ont.

**Methods of Home-mixing and Applying Fertilizers.**

By B. Leslie Emslie.

As our farmers become more conversant with the principles of fertilizing, there is naturally a growing tendency on their part to purchase the separate fertilizer ingredients and compound their own mixtures at home. Before discussing the methods employed in mixing and applying these materials, it might be well to briefly review the arguments urged for and against the home mixing of fertilizers. We shall first take the arguments against the practice, and, in our opinion, they are easily disposed of.

It is contended that:

- 1. The average farmer does not know enough about the nature of fertilizers to enable him to intelligently do his own mixing.
  - 2. The manufacturer has facilities (machinery, etc.) for thoroughly mixing the materials, which are not available to the farmer at home.
- The first argument, however applicable it might have been 50 years ago, would be a reflection on the intelligence of the present-day Canadian farmer, when agriculture, in all its branches, has really become a science. Of course, it must be borne in mind that the use of commercial fertilizers in Canada is yet in its infancy, and probably most farmers, in first essaying their use, employ some brand of ready-mixed fertilizer, but it speaks well for the discernment of our farmers that they soon turn their attention to the separate ingredients. Abundant proof of this may be found in the Maritime Provinces of the Dominion, whose farmers and orchardists are our pioneers in the use of fertilizers, and employ the separate ingredients almost exclusively.

The second argument has likewise no very sub-

stantial support, since, in our experience, no very great difficulty was ever encountered in getting a sufficiently fine and thorough mixture with the aid of the simple apparatus usually to be found on the farm.

**ARGUMENTS IN FAVOR OF HOME-MIXING.**

1. Economy.—Usually, at least 25 per cent. is saved in purchasing the separate ingredients. There is no useless "filler" to add to the freight charges; there is no duty on the separate ingredients, whereas the farmer must bear the cost of the duty imposed on the ready-mixed fertilizers, when these are imported from the United States.

2. Assurance.—The farmer who purchases the separate ingredients, especially if he insists on getting the goods in the original sacks, knows exactly what he is getting for his money, whereas the purchase of a ready-mixed brand is more often like buying a "pig in a sack."

3. Adaptation.—With a stock of the separate ingredients on hand, the farmer is enabled to make up his mixtures according to prescriptions which he has prepared to suit the varying requirements of the different crops and soils.

From this short resume, each farmer may judge whether, in his case, it will pay him to purchase the separate ingredients in preference to the ready-mixed goods.

We do not wish to be understood as condemning the use of every brand of mixed fertilizers, but would caution the farmer, who for some reason prefers to employ the ready-mixed materials, to purchase the same from a reliable manufacturer in Canada, thus avoiding the payment of duty on the same. Let him only purchase high-grade brands; i. e., those showing the highest percentages of nitrogen, phosphoric acid and potash in the analysis. In compliance with the requirements of the new Canadian Fertilizer Act, the guaranteed analysis of the fertilizer must be stencilled on the sack, or printed on a tag attached to the same, which tag also bears the number under which that particular fertilizer has been registered at Ottawa, and by means of which it may be identified.

For the farmer's guidance, in purchasing ready-mixed fertilizers, he may obtain from the Inland Revenue Department, at Ottawa, a bulletin, No. 186, entitled, "Fertilizers as Sold." In this bulletin are listed all fertilizers offered for sale in Canada, and the guaranteed and actual analysis of each is shown.

**MATERIALS USED IN COMPOUNDING FERTILIZER MIXTURES.**

The following are some of the more popular sources of nitrogen, phosphoric acid, and potash:

Nitrogen.—Nitrate of soda, about 16 per cent. nitrogen; sulphate of ammonia, about 20 per cent. nitrogen; dried blood, about 12 per cent. nitrogen.

Phosphoric Acid.—Acid phosphate, about 15 per cent. available phosphoric acid; bone meal, about 22 per cent. available phosphoric acid; basic slag, about 20 per cent. available phosphoric acid.

Potash.—Muriate of potash, at least 50 per cent. actual potash; sulphate of potash, at least 48 per cent. actual potash; kainit, at least 12½ per cent. actual potash.

**HOW TO FILL A PRESCRIPTION.**

Supposing it is desired to prepare a mixture containing approximately 3, 9 and 10 per cent. nitrogen, phosphoric acid, and potash, respectively, it could be obtained as follows:

- 400 lbs. nitrate of soda (16 per cent. nitrogen) equals 64 pounds nitrogen.
- 1,200 lbs. acid phosphate (15 per cent. phosphoric acid) equals 180 pounds phosphoric acid.
- 400 lbs. muriate of potash (50 per cent. potash) equals 200 pounds potash.

2,000

64 lbs. in 2,000 lbs. total mixture equals 3.2 per cent. nitrogen.

180 lbs. in 2,000 lbs. total mixture equals 9 per cent. phosphoric acid.

200 lbs. in 2,000 lbs. total mixture equals 10 per cent. potash.

Pounds of ingredient in mixture, × 100 (thus: divided by total weight of mixture), equals percentage of that ingredient.

**METHODS OF MIXING FERTILIZERS.**

Machinery for mixing fertilizers is rarely available on the farm, but the operation may be easily and simply carried out without elaborate preparations. The apparatus requisite for the operation are: (a) The fertilizers; (b) the mixing floor; (c) a shovel; (d) a broom; (e) a wooden post, to be used as a pulverizer, and (f) a weigh scale. In mixing large quantities, the latter may sometimes be dispensed with, if it be remembered that, in the original sacks, the weights of the materials are usually as follows:

Nitrate of soda and sulphate of ammonia, 200 pounds to the sack.

Acid phosphate and bone meal, 200 pounds to the sack.

Sulphate and muriate of potash (always), 225 pounds to the sack.

As the weigh scale is usually to hand, how-

ever, it is well to employ it to check the weights. The modus operandi is as follows:

The mixing may be done on a solid, level part of the barn floor, or, if a cement floor is available, it would be preferable to the wooden one, since the shovelling and crushing could more easily be done thereon. One ton will usually be a sufficient quantity to manipulate at one time, to insure thorough mixing. Sweep the floor clean; empty part of the phosphatic fertilizer and spread it level on the floor; on this put part of the potash, then the remainder of the phosphate and of the potash. If the nitrogen, either in the form of nitrate of soda or sulphate of ammonia, is to be mixed with the rest, empty it out by itself on the floor, and, with the aid of the wooden post and the back of the shovel, reduce the lumps, for both of these materials are apt to become caked in the sacks. When the material has been reduced to sufficient fineness, spread it over the heap. Then take the shovel and turn the heap first to one side and then to the other. After doing this a couple of times, the whole heap may be put through a sieve, any lumps remaining on the sieve being thrown to one side, and afterwards reduced and added to the heap, which may then be turned a couple of times. It is not always necessary to use the sieve, but it is usually a great aid to thorough mixing.

After completing the operation in this way, fill the material into the empty sacks, and proceed with the next batch.

#### PRECAUTIONS NECESSARY IN MIXING.

Never mix sulphate of ammonia with basic slag or quicklime, for the free lime contained in the latter materials will enter into chemical combination with the sulphate part of the former, thus setting free the ammonia as a gas.

Never mix acid phosphate with quicklime, since the lime, by combining with the available phosphoric acid, will revert the latter to the insoluble form.

Never allow a mixture containing nitrate of soda and acid phosphate to remain for a very lengthened period in sacks, or the latter will rot away.

The potash salts may be mixed with all other fertilizers, but a mixture of basic slag (Thomas' Phosphate Powder) with kainit ought to be applied at once, as the mixture will soon become as hard as cement.

#### WHEN TO APPLY FERTILIZERS.

This will be determined by (a) the nature of the crop, (b) climatic conditions, and (c) the rate of availability of the fertilizer constituents.

For Hay and Pasture.—The fertilizers may be applied as soon as the frost is out of the ground, and, indeed, for most other crops the phosphatic and potassic fertilizers might be advantageously applied as soon as it is possible to get on the land. Where this is not convenient, however, the fertilizers may be applied for cereal and hoed crops at seeding time.

For fruit trees and bushes, the application of the phosphatic and potassic fertilizers may take place before the ground freezes in the fall, or as soon as the frost leaves the ground in the spring.

#### CLIMATIC CONDITIONS.

In localities with a low rainfall, the fertilizers ought to be applied as early as possible, in order that their plant-food constituents may become available to the plants when the latter are ready to make use of them. In moist climates, the fertilizers need not be applied so early, and such very soluble nitrogenous materials as nitrate of soda should be used sparingly.

#### RATE OF AVAILABILITY.

In nitrate of soda, sulphate of ammonia and dried blood, we have three nitrogenous fertilizers, placed in the order of the availability of their nitrogen. Dried blood is the slowest-acting form, and is, therefore, better adapted for early application. Nitrate of soda is exceedingly quick-acting, and, therefore, ought not to be applied long before the crop is ready to assimilate its nitrogen. In its rate of action, sulphate of ammonia is intermediate between the two. It is often considered desirable in making up a complete mixture to put in certain proportions of two or more different nitrogenous fertilizers, to insure a more gradual and continuous supply of nitrogen. The special virtue of nitrate of soda is due to the fact that it provides a readily available supply of nitrogen to the young plant at a time when nitrification in the soil is only commencing. Likewise, in acid phosphate, basic slag and bone meal, we have three carriers of phosphoric acid, placed in the order of their activity. Basic slag and bone meal, being slower than acid phosphate in their action, may be expected to give best results if applied in the fall or very early spring. For late spring application, acid phosphate is to be preferred, unless on soils containing an excess of acid, where basic slag would be expected to correct the sour condition.

Both sulphate and muriate of potash are moderately quick in their action, and suitable for spring application, although they lose nothing by being applied in the fall; in fact, if applied at the latter season, their potash would usually be more available for the spring-sown crop. Kainit

(a crude potash salt) has been found to give best results when applied in the fall.

#### METHODS OF APPLYING FERTILIZERS.

Fertilizers may either be applied by hand or by machine. Some modern grain-seeders, potato and corn planters, have an attachment for sowing fertilizers, and one implement company now manufacture two fertilizer distributors, one a broadcasting machine, and the other a combined seed and fertilizer drill. Where large quantities of fertilizers have to be applied, the machine is a great labor-saver, and by its use a more equal distribution is insured. Generally speaking, we prefer the broadcasting machine to the drill, or to any of the other mechanical devices referred to.

Broadcasting by hand is easily and simply performed. The sowing "hopper" or basket might be described as a crescent-shaped, canvas-covered frame, with waist and shoulder straps attached. Both hands are used in the operation, and, to obtain the proper rhythmical motion, it is important to note that the right arm is swung backwards from the hopper as the left foot advances, and vice versa. The length of the stride can be adjusted to the thickness of the sowing desired. The breadth of cast is usually about the width of four potato or turnip rows.

Preparatory to commencing operations, the fertilizer sacks are placed at convenient intervals in the field. Two men, or a man and a boy, can perform the work, one man doing the sowing, and the other man, or boy, carrying the fertilizer in a pail from the sack to the sower.

Broadcasting Fertilizers on Potato Rows.—When the sets have been planted in the row, a heavy log, about 9 feet in length, or long enough to take four rows, may be dragged by a horse over the rows so as to slightly flatten them and partially cover the potato sets. The fertilizers are then sown, and the rows closed.

Broadcasting on the level, whether in field or orchard, is an equally simple operation. The fertilizers should be harrowed or worked into the ground with a cultivator, except on sod, where cultivation is unnecessary. In the latter case, however, it is usually possible to apply the ferti-



Residence of Arthur E. Young, Wentworth Co., Ont.  
Erected ten years ago.

lizers rather earlier than on cultivated land, and they will thus have a better chance to get washed into the soil by the spring rains.

Broadcasting versus Drilling.—For various reasons, which shall be stated, we generally prefer broadcasting fertilizers to sowing them in the drill or row, although the latter practice has something to recommend it, chiefly, however, in that it saves time by combining the two operations of seeding and fertilizing. Our arguments in favor of broadcasting may be presented thus:

1. Broadcasting insures a more thorough distribution of the fertilizers in the soil, encouraging a more extensive root development, which gives the plants a greater feeding area.

2. The crops succeeding that to which the fertilizers have been applied will grow and ripen more uniformly. Take the instance of a cereal crop following a corn crop, to which the fertilizers were applied in the rows or hills, and note the uneven growth; the old corn rows can, as a rule, be traced from end to end of the field.

3. Broadcasting prevents an excessive concentration of fertilizers directly under the young plant, which in many cases might have an injurious effect.

As an aid to the better understanding of the subject of this article, we would refer the reader to the series of articles, entitled "Fertilizers: Their Nature and Use," which appeared in the columns of "The Farmer's Advocate" during February and March, 1908. These articles have since been printed in pamphlet form, and anyone desiring a copy may obtain same by addressing the writer at 1105 Temple Building, Toronto.

#### Drainage and Dragging.

Editor "The Farmer's Advocate":

The good-roads question is under discussion, and the consensus of opinion apparently favors the idea that Government grants could be used to better advantage in assisting drainage, than expending it upon the actual roadbed. Every resident of Essex who is at all interested in making of good public roads, soon comes to the conclusion that in almost every part of the county there is abundance of material suitable for the construction of roads. The peculiar texture of the clay subsoil makes possible, with careful construction and constant supervision, the best road system in Canada. If proper attention was paid to the construction and maintenance of our public roads, much useless expenditure of time and money might be avoided. The constant use of split-log drags for a few days in early spring would be of greater value than weeks of labor at a later season. The policy of expending so much labor in gravelling roads, and then, to gratify the desires of a few, cover said gravel under inches of soil taken from a ditch-bottom, should be denounced. The actions of public officials who persist in continuing such a policy cannot be too severely condemned.

Essex Co., Ont.

A. E.

#### Tax All Dogs.

Editor "The Farmer's Advocate":

I notice some letters in your last issue re taxing of dogs. Also, I have been noticing where one of our M. P.'s has brought forth a bill to tax dogs, and I am pleased to note that there is some hope of our Government compelling municipalities to levy a dog tax, and provide sheep fund. I may say our township, "by a motion," threw out dog tax, or never took advantage of the 1897 law in regard to dogs and sheep, etc.

While every honest-thinking man knows it is right, yet we have, I suppose, twenty-five men who own a dog or dogs to one who owns sheep, and our municipal boards, wishing to keep in power, are afraid of offending the multitude, and therefore encourage the breeding and raising of dogs in preference to sheep. I firmly believe 50 per cent. of the dogs kept in our Province are useless, kept, probably, because it is fashionable to have a dog; also, to yelp at people driving along the highway.

If our farmers were protected from the dog nuisance, I believe nearly every prosperous farmer would keep sheep, and instead of the great scare of noxious weeds, we could turn our sow thistle, quack-grass and numerous other weeds into cash, and at the same time help to clean our farms. In conclusion, I may say that in past years we have

lost about \$200 worth of sheep destroyed by dogs, and many of our neighbors likewise, and we have never received one cent, as dogs generally come at night, and it is impossible for sheep-owners to sit up all night, also very injurious to the health.

Grenville Co., Ont.

R. J. W.

#### Corn is King of Farm Crops.

Editor "The Farmer's Advocate":

There are certain varieties of corn that can be grown in almost any part of Canada, and yield good paying crops. Its usefulness as silage for profitable feeding of live stock is long past the experimental stage. Any farmer who owns 50 acres of land would find a silo a very profitable investment, as it turns winter into summer, as far as green, succulent feed is concerned. To the farmer who has no silo, my advice is to grow corn that will ripen for grain. This will also give large crops of dry fodder, which makes excellent feed during the winter months. Why should we not grow corn, instead of so much wheat, oats or barley, when Prof. Klinek, with his carefully-selected seed corn, produces over 100 bushels per acre of shelled seed? On the farm division at Macdonald College, 20 acres were grown for ensilage, and, as a definite rotation is followed, the corn is grown on a variety of soils; nine acres of the Learning variety, yielded 130 tons 459 pounds. This was grown on a peaty soil, almost woody in nature; the water-line, however, does not come within three feet of the surface, and the corn is, therefore, enabled to get a fairly good root-growth, which gave a good crop of excellent quality for

ensilage. A second field, of 16 acres in extent, of Leaning, grown on a sandy loam, came well to the glazing stage, and gave a yield of 294 tons 220 pounds. About half this field was new land; the other half had been worked for about 15 years without manure, until prepared for this corn crop, when an application of about 18 tons per acre was applied. Four acres of Mastodon gave a yield of 105 tons 630 pounds; gathered from roads and barn, 1,590 pounds. This was grown on a good sandy loam, the hardpan and rock being rather close to the surface for best results.

What does it cost the average farmer to produce a ton of silage, paying for everything? Following is the cost on the College Farm, 1909: COST OF GROWING 29 ACRES OF CORN FOR ENSILAGE.

Rent of land, at \$3 per acre .....	\$ 87.00
Manure, one-third charged to each crop, at \$6 per acre .....	174.00
Plowing, 20 2-10 days, at \$3 per day ..	60.60
Disk-harrowing, cultivating and harrowing, 14 7-10 days .....	44.10
Sowing, 2 9-10 days, at \$3.00 .....	8.70
Seed, 14½ bushels, at \$1.45 .....	21.02
Rolling, 1 day .....	3.00
Cultivating during summer, team, 18 7-10 days .....	56.10
Cultivating, single horse, 4 6-10 days, at \$2.25 per day .....	10.35
Hoeing, 52 6-10 days, at \$1.50 .....	78.90
Cutting with binder, 8 7-10 days, at \$3: one man, 1 day, \$1.50 .....	27.60
Loading, unloading, tramping in silo.....	154.05
Gathering stone, and letting off surface water .....	13.50
Use of farm machinery, at 30c. per acre..	8.70
Engine and blower, 8 days, \$7 per day..	56.00
Twine, 145 pounds, at 11c. ....	15.95
Drawing teams, 34 3-10 days, at \$3.....	102.90

Total cost .....

Five hundred and thirty tons 889 pounds from the 29 acres cost \$922.47. Average yield, 18 tons 582½ pounds per acre, with an average cost per ton of \$1.74. It will be plainly seen by those figures that corn is one of the cheapest and best feeds grown on the farm; besides, the land is left in much better condition by the thorough cultivating. I would strongly urge every farmer to plan a good systematic rotation of crops, where corn will have its proper share of land each year. More corn grown, more feed, more money to be made. JOHN FIXTER. Macdonald College, Que.

**Alfalfa Roots and Tile.**

Editor "The Farmer's Advocate":

You are asking for information re alfalfa roots filling tile drains. I have a six-inch tile across my farm. Eight years ago I sowed one acre of alfalfa. A six-inch tile ran through this land. I cut it for summer feed for six years, three and four times in a summer. About four years after sown, something blocked the tile drain. I dug up some tile to find the cause of the stoppage of the water, and found the tile filled full of small clover roots. I may state the tile ran through the orchard, and these tile were just as full of the apple-tree roots as the other part was filled with the clover roots. I dug all the tile up and cleaned them out. That is four years ago, and I have had no trouble since that time with the tile blocking, and that did not deter me from seeding with alfalfa, for I think it is the most profitable clover we can grow for feed. JOSEPH CRONE. Lambton Co., Ont.

**Has No Fear of Alfalfa Roots in Tile.**

Editor "The Farmer's Advocate":

In reply to your request, would say I grew alfalfa for a number of years, when on my farm in Elgin County. The soil was mostly a loam, with still clay subsoil, and well tiled. One such field was in alfalfa for several years, and grew heavy crops. I never had any trouble from the alfalfa roots getting into the tile, and would not hesitate to sow alfalfa on underdrained land. R. J. HINE. Perth Co., Ont.

**THE DAIRY.**

**Wentworth Co. Herd Record.**

Editor "The Farmer's Advocate":

I am renewing my subscription to "The Farmer's Advocate" for 1910, and would say, by way of appreciation, that I believe it is the best farm journal published in Ontario to-day. The different discussions brought out by farmers and stockmen are very beneficial to the readers of your excellent paper. I deem it a pleasure to give you the record of our dairy herd of thirteen cows, which are grade Holsteins, Jerseys and Shorthorns. The thirteen cows gave an average of 6,385 pounds milk per cow, dating from November 7th, 1908, to November 8th, 1909. The whole herd is included, just as they went dry and freshened in the year.

We are situated three miles south of Hamilton, which has a very good market, and we received 16 cents per gallon, or an average of \$102.16 per cow. Now, sir, I don't think there is any class of stock which pays as well as the dairy cow.

Another valuable asset is the manure, which keeps up the fertility of the soil, and insures better crops. The farm, which consists of 125 acres, of which 110 is cleared, is clay loam, and is in good state of fertility. It was cleared by

**Clean Milk Production Without Frills.**

Editor "The Farmer's Advocate":

In the report of the Ontario Milk Commission, which has just been published, on page 41 it reads: "Of the other exemplary illustrations, a farm in London Township may be cited." As it is my farm that is mentioned by them, I have been asked by some of your readers what style of

barn it is, and how we care for our herd. I will state as briefly as possible that there is really no style about it, and I presume that was their reason for putting in this illustration, to show that any ordinary Ontario barn can be used as a dairy barn, with very little expenditure, but with a systematic method of cleanliness. The illustration given was taken by one of the Commission on their tour of inspection, and, to further show that it is not necessary to have a fancy barn in order to produce good and clean milk, I might state that the main body of this barn was built by my grandfather 80 years ago; in 1880 we raised it up, and set it on stone walls, which made it 72 x 32, for an ordinary stock barn and mixed farming. But I have found out since that I did not put it high enough for a good dairy barn. It is 8 feet 4 inches from floor to ceiling, which was considered good height at that time. In 1900 I built an addition or lean-to, 24 feet wide, and the full length of the old barn, on the south side of it, and took out the south wall of the old barn, which gave us a floor space of the interior 70x54, and a building fairly well lighted, with very little expense. I mention this only to show that an ordinary barn, such as this, with very little trouble, can be kept in the A-1 class for dairy purposes, let it be large or small, and no matter how humble the surroundings may be.

Our floors and gutters are all cement, but the old original two-cow stalls of wood or plank. The whole of the interior is thoroughly white-washed twice a year, and during the summer season sprayed once or twice a week with thin whitewash and a small quantity of carbolic; and



Dairy and Barn on Farm of Jos. H. Marshall, Middlesex Co., Ont.

my great-grandfather, who was one of the first settlers in this district.

Farmers should be happy and contented under the present favorable circumstances, as they are receiving good prices for all kinds of produce. Prosperous farmers means the building of a great nation. ARTHUR E. YOUNG. Wentworth Co., Ont.

C. H. Ralph, who has been Cheese Instructor at the Ontario Agricultural College for about six years past, has left to take charge of a large condensing, cheese and butter making plant at Richmond, Utah, at a salary of \$1,500 a year. A. MacKay, of the Western Ontario Instruction Staff, has been engaged as Cheese Instructor.



A Dairy Herd From Which Pure Milk is Purveyed.

in the spring, before whitewashing, the wooden parts of the stalls are thoroughly scraped with a sharp spade or wide chisel, to remove any loose lime or dirt that may become attached during the winter, gives a clean surface for the next coat of whitening.

Stables are cleaned twice a day by one-horse truck, with wheels 18 inches in diameter set well under sides of box, which is built to go nicely through doors in passageway. The manure is drawn mostly direct to the fields, and on Sunday to a pile not less than 100 yards from barns. The floors and gutters are immediately sprinkled with fresh-slaked white lime, and lightly brushed over; disinfected twice a week in stalls and gutters, but in winter every day. Although the sun shines in our stable during summer, doors being open and windows all out, we are never troubled with flies in or around it.

The illustration on page 123 of the report, described as "Tuberculin-tested Herd," is our herd, which had just finished drinking at the cement 50-foot trough of running spring water, marked X in the background. They drink both coming in and going out to and from the pasture in the summer time, at milking hours, and are turned out to the trough twice a day during the stabling season. We did have the water running in front of them in the stables for several years, but my experience for forty years in my own stables, and what I have seen in others, with the feed from their mouths getting into the water in the stables, and the slobbering and dampness it causes, leads me to prefer the water outside, as we have it, first, because, with water in the stable, the men in charge may not let the herd out regularly for exercise—excuse, weather, etc.; 2nd, the little exercise twice a day to the trough is better for the health of the herd, because any good herdsman can detect an animal at once, on walking out, if she is feeling well or not, and I am a firm believer in plenty of fresh air and exercise for the health of animals, as well as man. One hundred and twenty-five feet from the corner of the barn is our dairy, where each cow's milk is carried as soon as drawn, and strained, aerated and cooled, all animal heat being removed at once by means of running spring water.

As already stated, I assumed the reasons the illustration in the report of our herd and our ordinary farm buildings was to show it was an easy matter, and inexpensive, for farmers and others producing milk for towns and cities, first, to have a healthy herd, kept clean, milked in a cleanly manner in clean stables, properly cleaned daily, with a clean yard, clean surroundings, clean sanitary dairy for cooling and caring for the milk, and, above all, clean, tidy people to do it. With these conditions, one can give clean, wholesome milk to the consumers.

With permission of "The Farmer's Advocate," I will in another issue give my experience in growing alfalfa, and how we keep an average of 35 to 40 cows on 100 acres the year round, and all hired help to do the work.

Middlesex Co., Ont. JOS. H. MARSHALL.

### Dairymen's Convention for Stratford.

That the Western Ontario Dairymen's Association will hold its annual convention and dairy exhibition next winter in Stratford, was decided at a recent meeting of the Board of Directors of the Association, held in London. The Board also discussed the dairy-herd competition, which is considered a good branch of work, and will be continued again next year, though probably under somewhat different conditions. There are those who think that, inasmuch as a large herd of cows seldom averages so well as a small or medium-sized herd, other things being equal, therefore, two classes should be provided in both the creamery and cheese-factory sections, one for herds of, say, 8 to 14 cows, and one for larger herds. It is not improbable that such a subdivision will be made. Frank Hens, the Chief Dairy Instructor in Western Ontario, was re-elected secretary.

Machine-skimmed condensed milk has received vigorous condemnation at recent meetings of Chambers of Agriculture in England, and the Central Council has taken up the matter. Especially strong is the demand that all such milk should be labelled as unfit for infants' use, on the alleged ground that "infants might have full stomachs of skimmed milk, and still starve to death."

Through a continuous check on the yield of each individual cow, many herd-owners have been enabled to increase the average yield by as much as 1,500 and 1,800 pounds of milk per cow in three years. Forms for recording weights of milk, or feed, will be supplied free on application to the Dairy Commissioner, Ottawa.

Fifty-one students have been enrolled in the professional and farm-dairy class at the Ontario Agr'l College Dairy School this winter. In addition, there are about 20 girls a week from the Macdonald Institute taking dairy work.

### Proficiency the Criterion for Makers' Certificates.

At the last session of the Ontario Legislature a new act was passed, called the Dairy Products Act, the two essential provisions of which were the obligatory registration of factories or creameries, and the certification of head makers, it having been provided that, after January 1st, every chief maker must hold a certificate, which might be issued by either of the two dairy schools in the Province, or by the Minister of Agriculture, on the recommendation of one of the Chief Dairy Instructors, this latter proviso applying to successful makers of experience already engaged in the work, and well qualified.

It has been felt, however, since the Act was passed, that it was a little too drastic in one particular, since it would disqualify young prospective makers coming on, who, for a lack of general education, or for any reason, could not attend a dairy school, but who might, nevertheless, develop into excellent practical makers. The Act is accordingly being amended this year, virtually making practical proficiency the standard for makers, whether they take the dairy course or not, though the regulation is framed so as to encourage attendance at the dairy schools. This phase of the Act comes into force in the beginning of 1911.

That proportion of the Act requiring the registration of factories takes effect this year. One of the clauses specifies that anyone wishing to start a new factory or creamery must get a permit, issued by the Minister of Agriculture on recommendation of one of the instructor-inspectors. Thus, the Department has a line on new enterprises from the start. Insanitary environment can be guarded against, and the erection of superfluous plants discouraged. Mr. Putnam, Director of Dairy Instruction, informs us that the officers and proprietors of factories and creameries, both present and prospective, have responded very readily to the requirements of the new law. Those factories which have not complied with the suggestions of the instructor-inspectors, with regard to the improvement of the sanitation at their factories, will have registration certificates withheld until such time as a favorable report is made by the instructor-inspection staff.

## GARDEN & ORCHARD.

### Winter Apples.

Editor "The Farmer's Advocate":

What are the best varieties of long-keeping winter apples to plant in a commercial orchard? is a question that is often asked. And it is a question easier asked than answered. The two features to be considered are, locality, and the demands of the market. This is the class of apples that dealers buy in large quantities, and store away for future sale, to supply the wants of their customers during the long winter months, thus extending the season until some of the early fruits begin to arrive from southern sections in the spring. Without the long-keeping varieties, the business of apple-growing would be sadly curtailed. Cold-storage is certainly a great help, but is not always available, and in only a very few of the sections to which apples are shipped, and it adds considerably to the cost. Therefore, keeping quality is always a very important point in the merits of a winter apple.

When we have keeping quality combined with high quality for dessert and cooking, and the variety is productive, then we have the ideal in a winter apple. In this respect, the Northern Spy undoubtedly stands at the head of all our winter varieties. And it is a good thing for the growers that we have such an apple. It has a few faults. We would like if the tree were a little more hardy, and the head more firmly knit to the trunk, like the Tolman Sweet, and that it would come into bearing earlier. But, even with these little defects, it is doubtful if even the great plant-wizard, Burbank, could in a lifetime produce a better winter variety than the Spy. The great demand for it proves its popularity. There is no single variety so popular. In Canada, from the Ottawa River to the Rocky Mountains, the conditions governing the sale of a carload of winter apples, in addition to the question of price, are almost invariably that a certain percentage shall be Spy. Usually, the demand is for 40 per cent., and they would like to make it 75. It is not likely ever to lose its popularity. Therefore, it is plain that the commercial orchard of winter apples to-day should be planted largely to that variety.

The defects in the tree can be overcome largely by top-grafting, and, in fact, in most sections, that is the best way to grow it. There is, perhaps, no better stock for this purpose than Tolman Sweet, although any good free-growing hardy variety, with well-knit head and healthy wood, will do very well. This plan also brings it into bearing much earlier. In top-working Spy on other hardy stock, I would advise, from my own experience, to begin early, when the limbs are small, and use the splice graft, rather than the cleft graft. The reason for this is the tendency

of the Spy to split wherever a crotch is formed. In localities where the Spy is tender and short-lived, it can be made a success by this method, and will be as long-lived as any variety.

A rich clay-loam soil, high, and a little rolling, with natural drainage, is the best location for the Spy. It is well adapted for this sort of a location, too, as there is no apple that will cling to the tree so well during high winds. There is, however, one defect that should be noted: It does not seem to be able to fertilize its own blossoms perfectly, and for this reason should never be planted in solid blocks, but should be in alternate rows with other varieties. But as it blooms later than most other varieties, the question as to what is the best variety to plant with it for purposes of fertilization, has, I think, not yet been satisfactorily solved. However, if pretty well mixed with the other varieties of winter sorts, it seems to get sufficiently fertilized to bear an abundant crop.

The Baldwin will likely always be a popular winter apple, but it needs a good rich soil, regular pruning, and good cultivation. However, the chief defect is that it is rather tender over a large section of Ontario. This can be overcome to a great extent by top-grafting it on a hardy stock. Where the Baldwin succeeds, it has the reputation of great bearing, although, in the older apple sections, where the trees are getting old, the Baldwin has not been so productive as formerly. It may be lack of fertility, or some cause other than the age of the trees. It is a favorite with the Britisher, and usually stands next to the King in favor over there.

The Greening has deteriorated of late years through its tendency to scab, but, where well sprayed and cultivated, it can still be made profitable, as it is almost unrivalled as a winter cooking apple, and a fairly good keeper. There will likely always be a demand for the Greening, and if it can be grown by good culture and faithful spraying, so as to be in good marketable condition, it would not be wise to discard it.

The Ontario, which bid fair at one time to be a popular variety, is, in my opinion, of doubtful value. Being a cross of Wagener and Spy, people expected it would be pretty near perfect, but, in point of quality and flavor, it does not come at all up to either of its parents. The short-lived and tender nature of the Wagener tree is painfully evident in the Ontario. I have tried top-working it, but with rather indifferent success. Perhaps it may succeed in some localities, but, from my own experience, I would not recommend it for this section at least, as a commercial apple. This variety has been quite a disappointment. It is an early and good bearer; the fruit is large and handsome, but the tree is too tender, too uncertain, and short-lived.

The King, as every apple-grower knows, commands the highest price in the British markets of any variety from Canada, but it is not as popular as the Spy in our home market, and never will be. It has not the long keeping quality of the Spy. Then, the tree is tender and short-lived, and its worst defect is its poor bearing. Even where it succeeds best, it needs to be sold at a high price to be profitable. Top-grafting it on hardy stock improves its bearing quality, and makes it grow in localities where it would otherwise be too tender, but it is doubtful if it can be made a profitable variety in any case.

When planting my first orchard, I planted a lot of Golden Russets, but I would not do it again. One learns by experience, but sometimes he pays well for it. It is not productive, and the most tedious and costly apple to pick on the whole list. They are not wanted in the home market. We seldom ever have any inquiries for them. The only market for them is the British market. One reason, probably, for their unpopularity at home is that, though the Russet is a long-keeper if kept cool, it will not keep in condition in an ordinary cellar like other apples, but will wilt and shrink till the skin is wrinkled. They lose their moisture, and at the same time lose their flavor, and are then of little value. However, it is fortunate that the British people like them, seeing that there are large quantities of them growing throughout the country. I would strongly advise intending planters to have nothing to do with the Russet.

There are a few varieties that may be successfully grown where the Spy, Baldwin, King and Greening are tender and not likely to succeed. Among these may be mentioned Seek-no-Further, Pewaukee, Stark, and Canada Red. These are all pretty hardy, prolific, and good keepers. The Pewaukee is an excellent winter cooker, and all of them sell fairly well in the home market. But wherever the Spy can be grown by top-grafting, seeing that it is the longest-keeping of any of our high-class apples, and the demand for it is ever on the increase (there is usually a premium of 25c. a barrel on it over all others), why not grow more of it? I would make the orchard of winter apples at least 75 per cent. Spy. I say this advisedly, and I don't think anyone acting on this advice would ever have reason to regret it. What the buying public ask for, and are willing to pay a good price for, is surely the right thing to

grow, always providing that it can be grown profitably. And this, aside from climatic conditions, is a matter of proper care and culture. I do not advise the planting of Gano or any of the Ben Davis class. They are only half hardy, are short-lived, and so poor in quality that they are likely to be almost unmarketable in the future. Simcoe Co., Ont. G. C. CASTON.

**Insects Attacking the Plum and Cherry.**

**PLUM CURCULIO.**

The plum curculio is a small blackish beetle, scarcely one-quarter inch in length, with a rough back and long snout (see Figs. 1 and 2). It attacks plums, cherries, peaches, apples, pears and haws. Most damage is usually done to plums and cherries, though sometimes the other orchard fruits are also quite severely attacked.

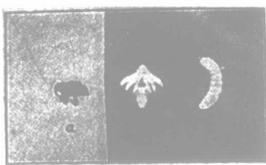


Fig. 1.—The Plum Curculio: a, beetle; b, pupa; c, larva—natural size.

**Life-history.**—The winter is passed in the adult stage under the protection of rubbish of any kind in or near the orchard. About the time the buds are bursting the adults come forth from their hiding-places and feed for some days on the buds, opening leaves, and even blossoms. Once the fruit is set, they soon go to this, and the females lay their eggs on it. Each egg is laid inside of a small crescent that she cuts out with her beak. On hatching, the young, legless grubs bore into the pit or central part of the fruit, and feed beside it until they are full-grown, which usually requires about three weeks. Wormy plums soon drop, as do most of the apples, pears and peaches, but the cherries hang on and rot. In many cases the eggs never hatch, or the grubs die very soon after hatching out. In such cases the apples and pears become much misshapen, since the punctured part does not grow so rapidly as the surrounding part, and thus leaves an ugly depression. When full-grown, the grubs enter the ground an inch or two and pupate. In about a month, as a rule, the new adults begin to emerge. There is only one brood in a year, but before going into winter quarters, these new beetles often do much harm, especially to apples and peaches, by feeding upon the fruit. Where they feed on the peach, gum usually exudes, but on the apple they make small cavities into which a half-pea would fit if the skin were removed. Above each cavity the skin turns brown, and in the center there is a small hole about the size of a pinhead. Through this hole the beetle had inserted its beak to feed, as far as it could reach, on the pulp within. These

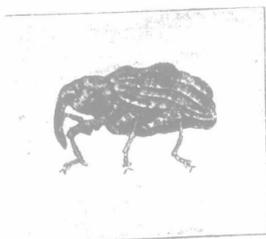


Fig. 2.—The Plum Curculio: beetle—enlarged.

feeding punctures on the apple are made from about the last week in August up to the first of October, or possibly later, if the weather remains warm. Most of the injuries observed by the writer were in counties east of Toronto, where he has found as many as twenty on a single apple (see Fig. 3).

**Means of Control.**—1. In apple orchards, the destruction of the fallen fruit by hogs or sheep is very helpful wherever it is practicable.

2. Good cultivation of the orchard as late as is safe, and the destruction of all rubbish in and around the orchard, is of very great importance, as it destroys the winter hiding-places of the insects, and destroys some pupae while in the soil. A great difference can almost always be seen in the degree of infestation of uncultivated orchards, compared with cultivated.

3. **Spraying.** For years this has been known to be of great help in controlling the curculios. Use arsenate of lead, 3 pounds to 40 gallons of water. About one-half pound of Paris Green may be used, instead of arsenate of lead. Spray first just as soon as the fruit is set, and second about ten days later, as the beetles continue feeding and

laying eggs for some time. On apples and pears, the regular spraying for codling moth suffices.

4. In the case of small fruit trees, the beetles may be jarred in the early morning from the trees into sheets on the ground, and gathered up and destroyed. This, however, has to be repeated daily, and is a slow process, compared with spraying. In jarring, tap the trees sharply with a padded pole or club.

**FRUIT-BARK BEETLES OR SHOT-HOLE BORERS.**

The adults of these insects are tiny black beetles about one-tenth of an inch long. They make little shot-like holes through the bark, chiefly of dead or badly-weakened trees. Under the bark they form galleries or tunnels, along the sides of which the eggs are laid. On hatching, the grubs mine in every direction, and cause the surface of the wood to look engraved when the bark is removed. When very abundant, the adults attack perfectly healthy cherry, peach or plum trees, and bore holes into them. Gum soon exudes from these, and drives out the beetles, and prevents their laying eggs, but this loss of gum greatly weakens, and may at last kill the tree. To determine whether the gum is caused by one of these borers or not, it is only necessary to remove the gum and a thin piece of bark, and see whether the small hole has been eaten in. If this is present, the beetles were the cause. Some years much injury has been done by this pest.

**Means of Control.**—1. Fortunately, at present there are so many tiny four-winged parasites attacking the grubs of these insects that the writer believes that these will for some time largely control the pest.

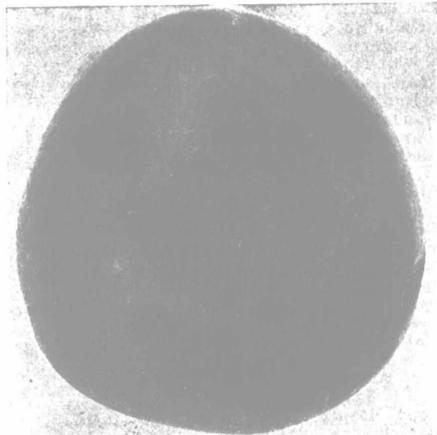


Fig. 3.—Late Summer and Fall Work of Plum Curculio on the Apple.

2. If every fruit-grower will cut down all dead and dying trees, and prune out all dead or dying branches, and make sure that these, along with any old brush-heaps, are burned early in April, or before the warm weather comes, he will have taken the only sure means to destroy the insects. The reason for this is that the most common species of these insects passes the winter in the grub stage, under the bark of these dead or dying trees, whether still standing or in brush heaps, and by burning them at this time of year, the grubs are destroyed.

3. Healthy trees can sometimes be protected by giving them a thick coat of lime whitewash, applied to the trunks and main branches with a broom. A little salt in the whitewash helps it to stick better. Put the whitewash on as soon as the insects are seen to be attacking the tree.

**APHIDES.**

Cherry and plum trees are often attacked by brown or black aphides, and sometimes by green. **Remedy.**—Spray carefully with kerosene emulsion when the buds are ready to burst, if the aphides are seen to be present.

**DISEASES OF THE PLUM AND CHERRY.**

**Black Knot.**—Figure 4 shows only moderately well the appearance of the black-knot disease. It is usually larger than this, and is seldom curved. The disease in many parts of the Province has been very destructive, and has destroyed a large proportion of the cherry and plum trees. It is a genuine fungous disease, and is not caused, as many think, by the grub that is often, though by no means always, found inside.

**Means of Control.**—1. Cut out and burn all knots during early spring, and whenever they are seen during the summer. Always cut a few inches below the diseased area. See to it that no infested trees, whether alive or dead, are allowed to remain around or near the orchard, as they would spread the disease to valuable trees.

2. As the spores spread early in the spring, and will begin to grow with the opening of the

buds, spray a short time before the buds burst, with either lime-sulphur or Bordeaux mixture.

**Brown Rot of Cherry and Plums.**—The brown-rot disease which causes plums and cherries to rot as they are ripening is so familiar to all fruit-growers that it needs no special description. The disease flourishes in moist, warm weather, and consequently is much worse some seasons than others.

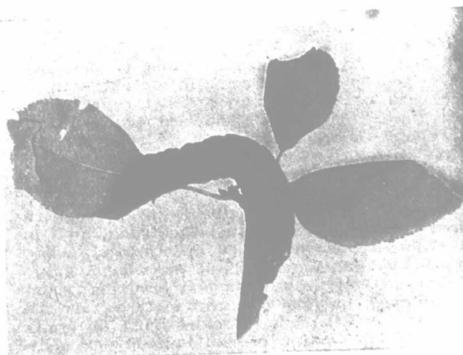


Fig. 4.—Black Knot on Plum Twig.

**Means of Control.**—1. Give the fruit plenty of free circulation of air and of sunlight by pruning and removing trees where too thick.

2. Thinning of the fruit would help greatly in the case of plums.

3. Do not allow old mummied plums or cherries to remain on the trees, as these spread the disease the next year. These may be plowed under early in spring.

4. Spray carefully, first, shortly before the blossoms open, and second, soon after the fruit is set. These two sprayings usually control the disease fairly well, but it is wise to give a third about two or three weeks later. For first spraying, use either Bordeaux (4, 4, 40) or lime-sulphur of the usual strength, for dormant trees; for second and third, use Bordeaux (3, 3, 40), or commercial lime-sulphur, about 1 to 40. Add two or three pounds arsenate of lead to the second and third sprayings for the plum curculio.

**Leaf Blight or Shot-hole Fungus.**—Soon after the fruit has been picked from the cherry trees the foliage often gets more or less covered with spots, which gradually turn brown, and often cause the leaves to become sickly and drop off, thus greatly weakening the trees. Plums are not so severely attacked, as a rule. In some districts this leaf-blight disease has done much damage.

**Means of Control.**—As the disease is late in appearing, it requires later treatment than other diseases. Spray first about four weeks after the blossoms fall, and second just after the fruit is picked. Use either Bordeaux (2, 2, 40), or com-



Fig. 5.—Mummified Plums, Caused by Brown Rot.

mercial lime-sulphur, 1 to about 45 or 50, as the foliage of the cherry at this season of the year is tender. No poison is required. In many districts the disease is not troublesome enough to require spraying. L. CAESAR.

Ontario Agricultural College.

**Treating Girdled Trees.**

Is there any preparation a person can put on young apple trees when they have been girdled by mice?

J. H. C.

Durham Co., Ont.

**Ans.**—If the bark has not been cleaned completely off down to the wood, a mice-girdled tree can frequently be saved by covering the whole surface with grafting wax or a paste of cow dung and clay, and wrapping the whole firmly with cloth. If this be done before the wood has dried, and the girdled space is not very wide, the sap will continue to rise through the wood, and, returning, will project new bark from the upper side of girdle, until a union with that below is formed. A mound of earth covering the whole will help in

keeping everything moist. If the wood has become dry before the bandage is applied, the tree can scarcely be saved by that method.

We have known trees saved by inserting scions between the fresh wood above and below the girdled portion. The larger the tree, the more scions should be used. These should be strong shoots of last season's growth. A slanting cut is made at each end of wound in the uninjured wood, and the scion, with ends cut wedge-shaped, and slightly longer than the distance between cuts, is bent slightly, and pressed into place. The spring of the scion tends to keep it pressed firm against wood and bark at each end. Some of the inner bark of the scion should come in contact with the inner bark of the tree, as at that point union takes place. The whole surface, but especially that about the ends of scions, is then carefully covered with melted wax, and wrapped with strips of cloth to keep out the air and keep scions in place.

Another method of bridging is to cut back the injured bark evenly all round the trunk, and insert the wedge-shaped scions underneath the bark at the upper and lower ends of the wound.

Other methods of cutting and inserting scions are employed, but the essential features are the same in all. The ends of scions must fit firmly, there must be junction of cambium layers above and below, and air must be excluded.

After the bridging operation is concluded, the tree-top should be well headed back.

If the trees are small, it is often better not to bother with bridge grafting, but to cut them off close to the ground, and if the tree has been root grafted, a strong shoot of the same variety will soon spring up and take the place of the missing tree. Or the stub may be grafted, and a rapid-growing tree will soon develop.

### New Brunswick Fruit Interests.

The appointment of a Provincial Horticulturist, in the person of A. G. Turney, to co-operate with the fruit-growers of New Brunswick, marks, it is to be hoped, the adoption of an aggressive policy of development in connection with the fruit-growing industry of that Province. Addressing the fifth annual convention of the New Brunswick Fruit-growers' Association, held recently in Fredericton, he said that he had understood that \$25,000 a year was sent to the sister Province of Ontario for apples. His first aim would be to endeavor to assist the fruit-growers in supplying their home market. After that, they would see what might be done for export.

The fruit crop in New Brunswick last year was hardly up to the average, said President Isaac Stevenson, in his annual address. Insect pests seemed to be steadily increasing in numbers, but he strongly urged the necessity of going more strongly into spraying. New Brunswick apples showed that they could compete with those of other countries, have won honors for their growth and beauty, and have been an advertisement for the Province. Both at London, England, and at Amherst, N. S., New Brunswick exhibits had, in strong competitions, won high honors. The Province was to be represented at the Brussels Exhibition the present year with a collection of 1909 fruit. The result of these exhibitions should give the people hope, and encourage them to develop the business for which so many parts of our country were so well adapted.

The President was of the opinion that the adoption, by the Association, of uniform score-cards for the judging of different kinds of fruit, and the circulation of such cards among the fruit-growers, would possibly enable them to select their fruit for show purposes, with better chances of success. It had been customary to hold the annual meeting of this Association, and the show in connection with it, some time in February, at Fredericton. For many reasons it was advisable to hold the meeting earlier, preferably in November. By holding the show in the early part of November, they ought to be able to get a larger attendance and display, on account of the ease with which everybody would get there, and because it was a far better time of the year to exhibit fruit.

A discussion followed on the point suggested by the President in his address, as to the best time and place for the Fruit-growers to meet. It was decided to meet in St. John, as being more available for the fruit-growing districts of King's County than was Fredericton, and that November would be a better time to meet than February, as had been done in the past. At that time a better exhibit of the early variety of apples could be obtained.

A misleading statement appeared in our report of the meeting of the Ontario Branch of the American Poultry Association, issue Feb. 24th, page 304. The correspondent who reported the poultry institute did not remain for the A. P. A. meeting, but obtained particulars from a member, who explained it incorrectly. The Ontario Branch of the American Poultry Association recommended to its members the ticket as published for officers of the parent or main organization.

## THE FARM BULLETIN.

### Arthur Johnston's Shorthorn Sale.

The dispersion sale of the Shorthorn herd of Arthur Johnston, Greenwood, Ont., on March 8th, attracted a large attendance, fully 500 stockmen being present from various districts in Ontario, from Thamesville in the west, to Pembroke in the east. The cattle were in fine condition, a number of them being high-class in type and quality. Bidding was fairly brisk, and interest remained unabated until all were sold, in spite of the cold, raw day. Thirty-one females sold for a total of \$4,095, an average of \$132, the highest price being \$300 for the red, five-year-old cow, Beauty's Queen, which went to Peter White, of Pembroke. Ten bulls sold for a total of \$1,290, an average of \$129, the roan three-year-old imported bull, Benholm Butterfly, going to John McKenzie & Son, Columbus, at \$290. Following is the list of those sold for \$100 and upwards:

#### FEMALES.

Beauty's Queen, calved Nov., 1905; Peter White, Pembroke	\$300
Lavender Beauty 4th, March, 1905; W. A. Dryden, Brooklin	175
Beauty Blend, May, 1907; Geo. Hillbright, Brodhagen	165
Beauty 41st (imp.), April, 1897; M. Bradshaw, Uxbridge	140
Lavender Lady, June, 1908; W. Dyer, Columbus	150
Lavender Gem, May, 1909; Robert Duff, Myrtle	130
Beauty Princess, July, 1909; Jos. Stone, Saintfield	100
Clara C. 2nd, Sept., 1902; J. P. Osborne, Bowmanville	155
Clara Countess, Oct., 1908; Miller Bros., Brougham	110
Lady Waterloo, July, 1906; C. A. McGillivray, Smith's Falls	140
Miss Ramsden, Sept., 1908; J. McPherson, Dundalk	150
Nonpareil Countess, Sept., 1905; C. A. McGillivray	140
Moss Rose 6th, Nov., 1903; E. Gibson, Claremont	165
Nonpareil Beauty, June, 1908; John Miller, Brougham	150
Belmar Mayflower 2nd, May, 1906; James Brodie, Bethesda	125
Butterfly Blend; Nov., 1908; Robert Miller, Stouffville	100
Duchess Annie 12th (imp.), Nov., 1902; E. Ratcliffe, East Oro	155
Duchess Annie 13th, Dec., 1906; Jas. Brodie	150
Duchess Annie 15th, March, 1908; H. Collicutt, Tyrone	125
Crimson Beauty, June, 1905; Jas. Bowes, Strathnairn	200
Scotch Queen, May, 1908; John Miller	150
Mena Koral, May, 1905; J. McPherson	135
Mena Clare, April, 1908; John Miller	100
Fame 9th, Sept., 1908; John McPherson	105
Fame 8th, Sept., 1908; J. Thompson, Dollar	105
Gloster Girl, Jan., 1909; Robert Smith, Columbus	100

#### BULLS.

Benholm Butterfly (imp.), April, 1906; John McKenzie & Son, Columbus	\$290
Koral Crown, Jan., 1909; C. A. McGillivray	150
Ben Hur, April, 1909; Wm. Lee, Claremont	105
Count Nonpareil, May, 1909; Smith Bros., South Woodley	165
Royal Baron, Oct., 1908; J. Graham, Saintfield	100
Douglas, Feb., 1908; John McKellar, Elgin	125
Red Butterfly, 1908; Alex. Lawrence, Thamesville	100
Forty-one head sold for an average of \$129.	

### Annual Meeting Quebec Holstein-Friesian Association.

This society met as the guests of Dr. L. de L. Harwood, at his farm at Vaudreuil, Que., on March 3rd, about 125 attending. The doctor is a thorough believer in the merits of Holstein milk as a food. His herd is a very finely-bred one, and the animals are of the strong, rugged variety, that put their own vitality into their produce, and give milk and butter in such quantities that it makes them the cheapest producers of the best milk for cities.

The following resolution was carried unanimously: That this meeting do earnestly petition the Ottawa Government to have the herds at the experimental farms increased by a sufficient number of proper Holsteins, there being no question of the desirability of this both from the Government's point of view, and from that of the Holstein breeders.

The following officers were elected for the ensuing year: Hon. Presidents—Hon. Mr. Caron, Minister of Agriculture, P. Q.; J. E. K. Horriek, Abbotsford. President, L. de L. Harwood, M. D., Vaudreuil; 1st Vice-Pres., Ogden Sweet, N. Sutton; Secretary, F. E. Cunn, Canaan Farm, Sauls au Rocollet.

### Niagara Fruit-growers' Meeting.

That progressive fruit-growing is a live subject in the Niagara peninsula, was once more emphasized last week, at the three-day meeting of the Niagara Peninsula Fruit-growers' Association. Two sessions daily were held, the first day at Winona, on Wednesday, March 9th, the second and third at St. Catharines, on Thursday and Friday. Vice-President Robt. Thompson, who occupied the chair, remarked at St. Catharines that it was indeed encouraging to see the ever-increasing attendance at these meetings, and a very hopeful sign to find the large hall well filled before the meetings started, and especially to note the large proportion of young men, some of whom came fifteen miles each way, both from the Niagara River and Winona, remaining the entire two days, that they might learn the latest methods of orchard practice.

The death of the late Murray Pettit, of Winona, who had been elected to the presidency of the Association only a few weeks before, and whose name appeared on the printed programme for the present series of meetings, was referred to by W. H. Bunting, who felt that a severe personal loss had been sustained by each member of the Association who knew him. A resolution of sympathy was passed. Spraying subjects were quite fully discussed.

Experiments have shown plainly, said Prof. J. P. Stewart, State College, Pa., that, to get the best results, it is absolutely necessary to get pure sulphur and pure lime, as low-grade limes give a sediment, and these limes, having a fair percentage of magnesia, form undesirable compounds, with a consequent loss of sulphur. His recommendations as to the preparation of concentrated home-boiled lime-sulphur solution have been previously published in "The Farmer's Advocate."

Thirty years ago, said T. A. Farrand, of Eaton Rapids, Michigan, every farm in this part of Michigan had from five to twenty acres of apple orchard. At that time, no insect or fungous diseases were troublesome, and, with no care at all, good fruit was grown. With the advent of insects and fungous diseases, whole orchards, from 25 to 60 years old, produce nothing. His method of work was to rent these unprofitable orchards, prune and spray thoroughly, netting often \$300 an acre, after paying expenses for spray and labor, renting them at a nominal rate for a series of years—four or five years—as results do not show much until after the first year. Jas. E. Johnson, of Simcoe, verified this speaker's remarks, and pointed out that that was his line of work in Norfolk County.

### Name of Contributor Omitted.

The article, "Essentials to Success with Pure-breds," in the Stock Department of this issue, was contributed by Geo. Rice, whose name was accidentally omitted in publication.

It is reported, on the authority of Dr. Frothingham, of Harvard Medical School, that, owing to strict enforcement of muzzling laws, there has not been in England a single rabid dog since 1903. The Pasteur Institute treatment has reduced the mortality of persons bitten by rabid animals from between 6 and 14 per cent., to a fraction of one per cent. In 1905 there were treated in forty Pasteur Institutes 104,347 people, of whom 560 died.

Hon. J. S. Duff, Minister of Agriculture for Ontario, has introduced into the Provincial Legislature a Government bill to amend the Municipal Act, empowering cities and towns to license and regulate milk vendors, and inspect places where milk is handled, whether in the municipality or elsewhere. It would also give power to revoke the license, if the commodity is not handled under clean, suitable, and sanitary conditions.

A bill to give municipalities the right, if desired, to put a higher rate of taxation on land than on improvements, which was introduced into the Ontario Legislature by A. E. Frupp, West Ottawa, had a short life. Sir James Whitney declared the Government was not yet prepared to accept or act upon the principle involved in the bill.

A daily demonstration in the handling of bees during five days of the show, was decided upon last Saturday, March 12th, at a conference of beekeepers with the Western Fair (London) Committee, which has charge of the apiculture department. An appropriation of \$100 was set aside for this purpose from the appropriation for attractions.

## Banking Service

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Interest paid on Savings Deposits.

CAPITAL, \$4,000,000  
RESERVED FUNDS, \$4,818,871

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INCORPORATED 1855

## MARKETS.

### Toronto.

#### LIVE STOCK.

At West Toronto, on Monday, March 14th, receipts numbered 119 carloads, comprising 2,563 cattle, 19 hogs, 126 sheep, 557 calves. Quality of cattle better than last week, some choice lots being of Easter quality. Trade opened up slow, but prices were firm. Exporters, of which there were about 80 loads, were held over. Prime picked loads of butchers' for Easter, \$6.75 to \$7; loads of good, \$6 to \$6.40; medium, \$5.25 to \$5.75; common, \$4.75 to \$5; cows, \$3.75 to \$5.50; canners, \$2 to \$3; milkers, \$35 to \$60, one choice, \$75; veal calves, \$4 to \$8.50 per cwt. Sheep—Ewes, \$5 to \$6 per cwt.; rams, \$4 to \$5 per cwt.; lambs, \$7.50 to \$8.50 per cwt. Hogs—Prices firmer, at \$9.65, fed and watered, and \$9.40, f. o. b. cars at country points, and prospects pointing towards \$10.

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

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

	City.	Union.	Total.
Cars	173	150	323
Cattle	2,392	2,440	4,832
Hogs	5,010	1,739	6,749
Sheep	579	153	732
Calves	324	64	389
Horses	2	256	258

For the corresponding week of 1909, the receipts were:

	City.	Union.	Total.
Cars	154	77	231
Cattle	2,398	1,058	3,456
Hogs	2,984	961	3,945
Sheep	490	133	623
Calves	225	56	281
Horses	—	205	205

The demand for cattle was strong all week, being greater than the supply, especially in the export class, of which a much larger number could have been sold. Nearly all the large American firms that export cattle to the British markets, had orders placed here, some of which could not be filled. The number of well-finished cattle was small, in comparison with the medium and common. Trade was brisk all week, and prices were higher all round. When the quality of cattle is considered, the prices paid were easily from 25c. to 50c. per cwt. higher than for any previous market this season.

The total receipts at the City and Union Stock-yards were as follows:

Exporters.—Armour & Co. bought 298 exporters, at \$5.85 to \$6.40.

Geo. Campbell bought for Morris & Co. about 400 exporters, from \$5.75 to \$6.75, but only one load brought the latter price, the bulk selling from \$6 to \$6.40.

On Tuesday, the S. S. Company bought 67 exporters, at \$6 to \$6.50, and on Wednesday they got over 100, at \$6.10 to \$6.70.

Two loads of export heifers, a little over 1,000 lbs. average, sold at \$6.25. Bulls, for export, sold at \$4.75 to \$5.50. There were four loads of cattle sold on Wednesday, at \$6.70 per cwt. The scarcity of export to fill orders at the Union yards, caused some of the dealers who had bought cattle for the abattoirs at the City market, to ship six loads of the best to the Union yards on Wednesday.

Butchers.—Prime picked lots sold at \$6 to \$6.25; loads of good, \$5.60 to \$5.90; medium, \$5.15 to \$5.50; common, \$4 to \$5; cows, \$3 to \$5; canners, \$1.50 to \$2.50; bulls, \$4 to \$5 per cwt.

Milkers and Springers.—There was little change in the cow market. Prices ranged from \$35 to \$80, the general run being from \$45 to \$60 each.

Veal Calves.—There was a strong market for veal calves, at prices ranging from \$4 to \$8 per cwt.

Sheep and Lambs.—Receipts were light, and prices firmer. Ewes sold at \$5 to \$6 per cwt.; rams and culls, \$4 to \$5 per cwt. Lambs—Yearling lambs were scarce and higher, at \$7 to \$8 per cwt., and selected ewes and wethers sold up to \$8.25 per cwt.

Hogs.—Receipts of hogs were not nearly large enough to supply the demand. Early in the week, \$9.25 was paid for selects, fed and watered at the market, and \$9 to \$9.10, f. o. b. cars. During the week prices steadily advanced until at the close selects, fed and watered, sold at \$9.50, and \$9.25, f. o. b. cars at country points.

Horses.—At the Union Horse Exchange, Manager Smith reports business last week not quite as good as mentioned in our last report; that is, it was not as large. Five loads were sold to North-west dealers, and one load to a contractor on the North Shore, with several lots to dealers and farmers in different parts of Ontario. Prices were as follows: A few choice-quality 1,700 to 1,800 lb. drafters sold at \$250 to \$275 each, while the general run of this class sold at \$180 to \$225; general-purpose horses, \$140 to \$180; expressers, \$150 to \$225; drivers, \$100 to \$225; serviceably sound, \$35 to \$90 each.

#### BREADSTUFFS.

Wheat.—No. 2 white winter, \$1.07 to \$1.08, outside; No. 2 mixed, \$1.06 to \$1.07. Manitoba—No. 1 northern, \$1.12; No. 2 northern, \$1.10, on track at lake ports. Rye—No. 2, 67c. to 68c., outside. Peas—No. 2, 83c. to 84c., outside. Buckwheat—No. 2, 52c. to 53c., outside. Barley—No. 2, 56c.; No. 3X, 54c. to 55c.; No. 3, 49c., outside. Oats—No. 2, 39c., at outside points, and 42c. to 43c., on track, Toronto. Corn—American No. 2 yellow, 70½c.; new No. 3 yellow, 68c. to 68½c.; Canadian corn, 63c. to 64c., Toronto. Flour—Ontario ninety per cent. patents, \$4.20 to \$4.25, in buyers' sacks, outside. Manitoba first patents, \$5.70; second patents, \$5.20; strong bakers', \$5.

#### HAY AND MILLFEED.

Hay.—Baled, in car lots, at Toronto, \$15 to \$15.50; No. 2, \$14 to \$14.50.

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

Bran.—Car lots, on track, Toronto, \$23, and shorts, \$2 more.

#### COUNTRY PRODUCE.

Butter.—Best qualities scarce, and sell at high prices. Creamery pound rolls, 29c. to 31c.; Locust Hill, 32c.; creamery solids, 26c. to 27c.; separator dairy, 26c. to 27c.; store lots, 22c. to 23c.

Eggs.—New-laid, 26c. to 27c.; storage, 26c. to 27c.

Cheese.—Trade steady. Large, 13c.; twins, 13½c.

Potatoes.—Prices unchanged, at 45c. to 50c. per bag, for car lots, on track, Toronto.

Beans.—Market unchanged. Primes, \$1.90 to \$2.10; hand-picked, \$2.15 to \$2.20.

Honey.—Prices firm, at 10½c. to 11c. per lb. for extracted, and \$2.50 to \$3 per dozen for combs.

Poultry.—Receipts light. Prices firm, as follows: Turkeys, 18c. to 22c.; chickens, 19c. to 21c.; fowl, 16c. to 17c. Cold-storage chickens, 16c. to 21c. per pound.

#### HIDES AND WOOL.

E. T. Carter & Co., 85 East Front street, have been paying the following prices: No. 1 inspected steers and cow, 11½c.; No. 2 inspected steers and cows, 10½c.; No. 3 inspected steers, cows and bulls, 9½c.; country hides, 8½c. to 9c.;

calf skins, 12c. to 13c.; horse hides, No. 1, \$2.75; horse hair, per lb., 32c.; tallow, per lb., 5½c. to 6½c.; sheep skins, 90c. to \$1 each. Wool and raw-fur prices given on request.

#### SEEDS.

Situation of the market unchanged. Dealers having their stocks requisite for the season's trade, do not wish to give quotations unless they can see an outlet.

#### FRUITS AND VEGETABLES.

Prices unchanged from last week.

### Montreal.

Live Stock.—Local cattle market showed considerable improvement in tone last week, owing partly to colder weather. Offerings were not large, quality was good, and, as there were a number of buyers in from other parts of the Province, a very fair trade was done. Some choice Ontario stall-fed steers brought as high as 6½c. per lb., the range being to 4c. below that figure. Fine stock sold around 6c., and good down to 5½c., while medium ranged down to 4½c., and common to 3½c. Bulls sold at 4c. to 5c. per lb. The supply of lambs and sheep was small, and trade light, prices ranging around previous prices, being 7c. to 7½c. per lb. for yearling lambs, and 4½c. to 5c. per lb. for sheep. Common calves ranged from \$3 to \$7 each, and choice up to \$13 each. The supply of live hogs was light, and prices were very strong, selects selling up to 10½c. per lb., weighed off cars. Good stock could not be had under 10c. On Monday, 14th, prices were firm, at 14 cents and over.

Horses.—Market steady at following prices: Heavy draft horses, 1,500 to 1,700 lbs., \$225 to \$300 each; light draft, 1,400 to 1,500 lbs., \$180 to \$240 each; small horses, 1,000 to 1,100 lbs., \$100 to \$150 each; inferior, broken-down animals, \$50 to \$100 each, and choice saddle and carriage animals, \$350 to \$500 each.

Dressed Hogs.—Owing to the strength of the market for live hogs, the entire market for hog products took an upward move. Dressed hogs, for instance, went up to 13½c. per lb., for abattoir-dressed, fresh-killed, this being pretty nearly a record figure. Hams were up about a cent a pound. Lard—Compound, 11½c. to 13c. per lb., and pure, 16½c. to 17½c. per lb.

Potatoes.—Market has gone to pieces, there being apparently more potatoes in the market than needed. It is said that a carload of Ontario stock could have been bought at 25c. per 90 lbs., here, last week, and that buyers had refused them at 30c. Green Mountains were sold here at 40c., and merchants were not prepared to pay shippers more than 35c. Hard to give a definite quotation.

Apples.—A lot of stock offering, and prices held about steady. At auction, No. 2 stock sold at \$1.75 to \$2.25 per barrel, and No. 3 at \$1.25 to \$1.50.

Eggs.—Much fluctuation in the market, as usual at this time of year. Straight receipts were selling here at about 28c., which would make the wholesale price of strictly-fresh eggs about 30c., here. On Monday of this week, prices were easier, at 27c. for fresh-laid.

Butter.—Market firm; finest fall makes were quoted at 25c. to 26c. per lb., fresh rolls bringing about 21c. to 21½c. per lb.

Cheese.—It was said that some Township cheese, white, sold recently at 12½c. per lb. On Monday, 14th, quotations for the various grades were 12½c. to 12½c.

Grain.—Oats—Prices, carloads, store, Montreal, No. 2 Canadian Western, 44½c.; No. 3, 43½c.; No. 2 Ontario, white, 43c. to 43½c.; No. 3, one cent less, and No. 4 yet a cent less. No. 3 barley, 60c.; No. 4 being 58c., and feed, 56c.

Flour.—Market steady, and none too active, at \$5.80 per barrel, in bags, for Manitoba first patents, \$5.30 for seconds, and \$5.50 to \$5.60 for winter-wheat patents, Ontarios; \$5.10 to \$5.25 for straight rollers, and \$5.10 for Manitoba strong bakers'.

Feed.—Fair demand for all kinds, bran being active. Prices steady, at \$22.50 to \$23 per ton, in bags, for Ontario bran, and \$22 for Manitoba bran, shorts being \$23. Ontario middlings, \$23.50 to \$24; pure grain mouille, \$31 to \$33, and mixed mouille, \$27 to \$29. Cotton-seed meal, slow, at \$39 to \$40 per ton, f. o. b., Montreal.

Hay.—Market was steady last week. No. 1 hay was quoted at \$15 to \$15.50 per ton; No. 2 extra at \$14 to \$14.50; No. 2 at \$12.50 to \$13; clover mixed at \$11.50 to \$12, and clover at \$10.50 to \$11.50.

Seed.—Orders continue to arrive, and the market was steady, at \$5 to \$7 per 100 lbs., f. o. b. Montreal, for timothy seed; \$18 to \$20 for red clover, and \$14 to \$17 for alsike.

Hides.—Dealers report a very good demand. Prices steady, at 10c., 11c. and 12c. per lb. for beef hides; 12c. and 14c. for calf skins; \$1 to \$1.10 each for sheep skins; \$1.75 and \$2.25 each for horse hides; 5c. to 6c. for rendered tallow, and 1½c. to 4½c. for rough.

### Chicago.

Cattle.—Steers, \$5.80 to \$8.40; cows, \$4 to \$6; heifers, \$4 to \$6.25; bulls, \$4.60 to \$6.10; calves, \$3 to \$10; stockers and feeders, \$4.40 to \$6.

Hogs.—Choice heavy, \$10.75 to \$11; butchers', \$10.65 to \$10.75; light mixed, \$10.45 to \$10.55; choice light, \$10.55 to \$10.65; packing, \$10.60 to \$10.70; pigs, \$10 to \$10.40; bulk of sales, \$10.60 to \$10.65.

Sheep and Lambs.—Sheep, \$6.75 to \$8.25; lambs, \$7.50 to \$9.65; yearlings, \$7.30 to \$8.75.

### Buffalo.

Cattle.—Prime steers, \$7 to \$7.35.

Veals.—\$6 to \$11.

Hogs.—Heavy and mixed, \$10.95 to \$11; Yorkers, \$10.75 to \$10.95; roughs, \$9.85 to \$10.10; dairies, \$10.60 to \$10.90.

Sheep and Lambs.—Lambs, \$6.25 to \$9.80; yearlings, \$8.75 to \$9.25.

### British Cattle Markets.

Liverpool and London cables quote live cattle (American) 13½c. to 14½c., dressed weight; refrigerator beef, 10½c. to 11½c. per pound.

#### SALE DATES CLAIMED.

March 23rd.—A. L. Kent, Oakville, Ont.; Clydesdales.

March 24th.—A. W. Smith, Maple Lodge, Ont.; Shorthorns.

March 25th.—J. A. Caskey, Madoc, Ont.; Holsteins.

April 20th.—James Benning, Williams-town, Ont.; Ayrshires.

June 7th.—At Guelph, Harry Smith, Hay, Ont., and others; Shorthorns.

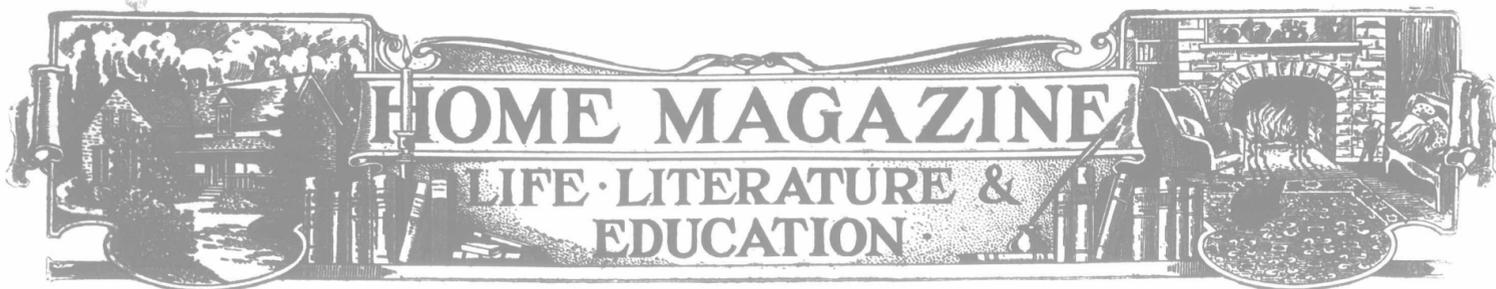
#### SETTLERS' ONE-WAY EXCURSIONS

to Western Canada, March 15, 22, 29, April 5 and 12, via Grand Trunk Railway System, from stations in Ontario, Kingston and west, to certain points in Saskatchewan and Alberta. Particular attention is called to the fact that low rates apply to points on Grand Trunk Pacific Railway, a new territory full of "Golden Opportunities." Secure tickets and further information from Grand Trunk agents, or address J. D. McDonald, D. P. A., G. T. Ry., Toronto, Ont.

In a list given by the Live-stock Journal of the winners of the prizes and of the animals awarded reserve numbers in the classes for breeding stock at the London Shire Horse Show this year, eighty-one sires are mentioned. The largest number of winners are again credited to Lockinge Forest King, who has twenty-five prizetakers and reserves. Tatton Friar and Blythwood Kingmaker have each five winners, followed by Childwick Champion, Holker Menestrel II. and Tatton Dray King with four each. Dunsmore Jameson, Birdsall Menestrel and Lockinge Manners have three each. The returns of the principal shows of 1909, as recorded in the Shire Studbook, show that Lockinge Forest King's stock in 1909 won 186 prizes, including 61 firsts.

#### TRADE TOPIC.

YOU WILL SOON BE SEEDING.—Now is the time that a good business farmer thinks of his wants. You will be interested in clover, timothy, the grand old Banner oat, and O. A. C. No. 21 Mandscheuri barley. Read what Geo. Keith & Sons, seed merchants, Toronto, are offering on another page of this issue.



### Home-work and the Public School.

In connection with the recent movement in some parts of Canada, to abolish home-work from public schools, the following from University Magazine of a few issues ago may be read with interest:

"Because the child is deprived of the proper opportunity to develop his body, we build beautiful (?) palaces for his incarceration during the hours of daylight, so that we may over-develop his brain. If this were not so stupid, it would be criminal. The real business of the child is not to pass examinations, but to grow up.

"The schoolroom must relinquish at least one-half of its claims upon the time and strength of our children. Our schoolrooms should be relieved of the mere necessary duty of keeping children out of harm and mischief, with which they are now loaded, and the playground should be organized, supervised, and recognized as a vital and co-ordinate branch of our scheme of education. One of the most valuable influences of the school is the effect of the children upon one another. But this can be obtained in its perfection only upon the playground. Cut down the school-hours one-half, and double the playground hours, and you will have done more for the physical, mental and moral health of young America than by any other possible step."

The article then quotes from an address given by Mrs. Harriet Keller, of Omaha, at an Educational Conference in New York:

"Give the whole boy, not just the boy-intellectual, a normal experience, and you will have a normal boy. Very few delinquents have that normal experience. What does it consist of? Enough nourishing food, sufficient clean air and water, a place to play, a little appreciated service to be rendered, a chance at learning, and, if something must be pinched off a little short, the boy can spare the formal learning, for he is being educated every minute. I would plead for an adjustment based upon the needs and ability of the child, rather than the extent of modern knowledge. Overpressure to force intellectual expression is a telling factor in producing delinquency. The playground comes to the rescue of the whole boy."

And the summing-up is given of the training for life which the child receives to no small extent in the playground:

"First, he learns to give and take; he learns to be a good loser, a very fundamental preparation for life. He learns fair play and no cheating. He learns to be loyal, and that not only to his side; but in learning the value of loyalty, he learns to appreciate it in others, his opponents; and in this miniature field of life, he gets his first lessons in practical standards and values; he learns the first lessons of co-operation and government, and of leadership; most valuable of all, he learns the true meaning of sport whose object is skill and not success, pride in your own skill, pleasure in that of your opponents. If this idea were once fundamentally rooted in a child, he would scorn, in after-life, to conform his life-work to any other law, and skill would be once more installed in its place of honor, each

worker vying with another to do the best work, and the best work receiving always its due reward."

The above may all seem very much exaggerated to those who have never known nor considered anything but the old idea of school: a place to cram in knowledge, and let the children shift for themselves at play-time. The more thought that is given to the question, however, the more reasonable do these apparently far-fetched arguments appear. If a child is kept hanging over a desk too long he becomes physically tired, and, if he has been really working at his books, suffers more or less from brain-fag. Shorter school hours (at least, longer recesses, and an omission of home-work, with the exception, perhaps, of interesting supplementary reading), must surely promise better results.

Then in regard to the playground: Everyone who has ever known anything of the ordinary school campus, of the roughness, and, occasionally, profane or even obscene language there used, must recognize the necessity of "supervision"—not the sort of supervision that constantly says, "You must not do this," "You must not do that," but the kind that comes of the mere presence of a teacher who, while smiling upon games and good-natured fun, and even acting as a leader and director in them, is well known to have no tolerance with anything that is mean or questionable.

The whole institution, indeed, school and its play-time, is, whether so recognized or not, a training for life, and in order that it afford the best kind of training, it is necessary that not only the intellect, but the character, also, of the children be developed along right lines during these early and impressionable years. When this view of the question has become widely-spread enough, as it is bound to be at some time in the future, it will be generally recognized that the hiring of a teacher is one of the most important events in any section. Not the "cheapest" teacher will be then considered, but the one who is known to be a man or woman, not only of intellectual qualification, but of character and ideals, and enthusiasm. The teacher who lacks enthusiasm is likely to be no teacher at all. The one who is filled with it may make some mistakes, but is sure to accomplish something. The true teacher above all men, must give to his work his life; for he works not with wood, or stone, or soil, or metal, but with soul and character, and with the happiness and well-being of the nation.

### The School System of Ontario.

Editor "The Farmer's Advocate":

In the issue of "The Farmer's Advocate" of 17th February there appears an article signed J. C. W., in which he makes a wholesale attack on the school system of Ontario, "and all that are put in authority under it." The essay by Justus Miller, in the same number, also contains reference to the education of the farmer. As one of the chief sources of pleasure and profit which I find in "The Farmer's Advocate" is in reading the opinions and experience of the common farmer, I will endeavor to add something to what has been said on the subject. My idea of a common public-school education is, the knowledge necessary to be acquired by all children, no matter what occupation they may be

called upon to fill. The public school should not be expected to take charge of the work of the school or college which gives special preparation for any one occupation. In the curriculum of our public schools we find such subjects as reading, spelling, writing, arithmetic, grammar, geography, history, literature, physiology, drawing, etc.

Would some of the "improvers" of our school system please tell us which of these subjects they would strike out, or what new ones they would add?

I believe it is a mistake to require a teacher to secure a second-class certificate, and attend a year at Normal School, in order to do the work covered by a third-class certificate. Many young people of limited means are deterred from endeavoring to secure a certificate on account of the unreasonable amount of time and money required, and, as a result, we have a scarcity of teachers, and many of our schools under the care of teachers with makeshift certificates, designated "Limited," "District," etc.

I very much regret that J. C. W. has seen fit to be so unnecessarily discourteous to our present public-school teachers. I am satisfied that many clever young men of today are helping to secure higher education for themselves by teaching school; and, as for the girls, I would imagine that the girl who possesses brains and energy enough to secure a second-class certificate, and thereby is earning an independent living, is not any more likely to be attacked by lovesickness than any others of her sex. If J. C. W. will take charge of the work of some of the teachers of my acquaintance for one week, and do it as faithfully and well as it is done by them, he will feel like lifting his hat to every teacher he meets.

If the Government of Ontario considers it advisable to so direct the education of our young people that a larger number of them may engage in agricultural pursuits, the best way to accomplish it is, first, by means of the public school, not through the teacher, who has already subjects enough, but by means of lectures by professors and graduates of agricultural colleges on such subjects as "The Soil," "The Plant," and "The Animal," or, if you prefer the terms, on chemistry, botany, physiology, etc., in their relation to agriculture. The Government should also scatter advertisements of the Agricultural College, setting forth its course of study, terms, and so on. Pupils who pass the entrance examination usually receive the advertisement of one or more business colleges. How many receive the prospectus of the O. A. C. at Guelph?

If the course I have outlined were followed, and an agricultural school or college established in Eastern Ontario, it would have a large attendance inside of three years. As it is, I would like to know how many students from the thirteen Eastern counties of Ontario, or east of Toronto, for that matter, there are in attendance at the O. A. C. Guelph. Make the public school the recruiting ground of the high schools and colleges; give to agriculture schools and colleges in proportion to its importance, and the Canadian farmer will rise to the place in the affairs of the nation to which he is entitled.

LEEDS CO., ONT. "CULTIVATOR."

### The Windrow.

A centenary celebration of the founding of the Swedenborg Society is to be held in London this year.

The little apothecary's shop in Grimstad, in which Isben lived and worked from 1844-50, is to be set apart and preserved as a memorial of the great Norwegian dramatist. It was in the garret of this little wooden building that the manuscript of "Catalina," his first tragedy, was written.

A great Army Pageant, showing the development of the army from the early wars of Britain to the present, will be held at Fulham Palace in June.

Owing to the growing scarcity of edelweiss, the famous Alpine flower, the Bavarian authorities have issued a decree that it is not to be picked, even by land-owners on their own estates, without a special license.

Mr. Edwin Slosson, who has just completed a tour of the great American universities, tells of his disappointment in finding that comparatively few of the college boys read anything important outside of their text-books. "The librarians and professors of English whom I consulted," he says, in New York Independent, "generally asserted that the boys read nothing but the required books, and talked nothing but athletics. The news-stand men told me that the Saturday Evening Post and the Ladies' Home Journal were most popular. . . . Still, I managed to get access to one or more coterie of genuine book-lovers in each institution, and from them made out the following list of favorite authors: Kipling, O. Henry, H. G. Wells, Jack London, Shaw, Chesterton, Churchill, George Ade, Richard Harding Davis, W. J. Loeke, F. Hopkinson Smith, and Frank Norris. . . . From this," he adds, "one would judge that the college students of to-day keep to the list of best-sellers, and do not go nosing for truffles, as we used to do." "The 'truffles,'" it may be interesting to note, from another part of the article, numbered among them Browning, Isben, Kipling, Whitman, and Omar Khayyam.

The New York Independent some time ago suggested that, since prosperous farming means increased traffic, it would be a good thing for the railroads to establish, here and there, model farms, teaching the people how to grow the largest crops at the least possible cost. The New York Central has already taken up with the idea, and will at once establish three farm stations, in three different sections of the country that its main line goes through.

The German Geographical Society has decided to send out a South Polar discovery expedition, and thus contest with the United States and Great Britain in the Antarctic race. The American South Polar expedition, under Lieut. Peary, will leave New York on September 1st.

### Motor Legislation.

The Ontario Legislature has been seriously discussing the motor nuisance. The bill dealing with the matter provides against furious driving; also, that the driver of an automobile must stop within 100 yards of a horse driven by women, or children under sixteen. The penalty for breach of the conditions is placed at \$50.



An Iowa Club Worker.

Spring.

I hear the wild geese honking  
From out the misty night,—  
A sound of moving armies  
On-sweeping in their might;  
The river ice is drifting  
Beneath their northward flight.

I hear the bluebird plaintive  
From out the morning sky,  
Or see his wings a-twinkle  
That with the azure vie;  
No other bird more welcome,  
No more prophetic cry.

I hear the sparrow's ditty  
Near my study door;  
A simple song of gladness  
That winter days are o'er;  
My heart is singing with him,  
I love him more and more.

I hear the starling fluting  
His liquid "O-wa-lee";  
I hear the downy drumming  
His vernal reveille;  
From out the maple orchard  
The nuthatch calls to me.

O, spring is surely coming  
Her courtiers fill the air;  
Each morn are new arrivals,  
Each night her ways prepare;  
I scent her fragrant garments  
Her foot is on the stair.

—John Burroughs.

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 Beavers,—Have you a school garden? I venture to say not; there are only about a dozen really good, well-managed school gardens in all this big Canada of ours.

But—well, you really ought to have a little ground-plot of your own somewhere. It is so very interesting to see things grow, and very much may be learned about working the soil up, and about the insects, etc., that are to be found in every garden. Why, even a toad becomes interesting when he is in your very own garden. You know that he is your friend; that he spends a good deal of his time licking up, with that wonderful lightning tongue of his, the very flies and slugs that are trying to ruin your

plants. He is a very sociable fellow, too, is that old toad, and if you use him right, he will soon learn to come out and stare at you like a wise old owl, and spread himself out in pure satisfaction when you gently scratch his back with a little stick. Oh, yes; you will get to be great friends with the old toad, and you will not wonder in the least when you hear that French gardeners even buy his French cousins to put in their gardens.

Now, what's the matter with your taking the matter into your own hands, and forming a gardening club of your own? You may not be able to have a school-garden, but surely each girl and boy can beg for a little bit of ground at home. Get all the other boys and girls of the neighborhood interested, and arrange to plant the same things, then you will have the fun of racing against one another to see which will have the best garden. Write a set of notes telling all about what you are doing, and your observations, as time goes on, and then, in the fall, call a meeting of the club and choose someone to go round and judge the gardens. Perhaps your teacher will do this, if you manage things rightly, you may even get the people of the neighborhood, or the trustees of the school, to arrange for prizes to be given for the best gardens, and the best set of notes, and if you are very energetic you will see to it that you have a fall fair, "Five cents admission; proceeds to go towards paying for prizes!"

Of course, you will have a great deal to learn about preparing the soil, planting, cultivating, watering, etc., if you are going to make this gardening business a success, but father or mother or teacher will tell you what to do. Needless to

The funniest thing about him is the way he likes to grow—  
Not at all like proper children, which is always very slow;  
For he sometimes shoots up taller like an India-rubber ball,  
And he sometimes gets so little that there's none of him at all.

He hasn't got a notion of how children ought to play,  
And can only make a fool of me in every sort of way.  
He stays so close beside me, he's a coward you can see;  
I'd think shame to stick to nurse as that shadow sticks to me!

One morning, very early, before the sun was up,  
I rose and found the shining dew on every buttercup;  
But my lazy little shadow, like an errant sleepy-head,  
Had stayed at home behind me and was fast asleep in bed.

—Robt. Louis Stevenson.

Dear Puck,—I would like to join the Beaver Circle, as my father takes "The Farmer's Advocate." I enjoyed your talk about the blue jay. There are two pair that stay in our pine trees, and my little sister and I like to watch them. My grandmother came home last week from the West, and she brought us a little gopher hide. She said they look like our chipmunks, but have smaller tails. She said they popped in their holes so quickly that they were hard to shoot, so they put a slip-noose in a string, and would lie in the grass at the other end



A Texas Corn Club. Showing Uniform Hats and Badges.

say, "The Farmer's Advocate" will be delighted to publish pictures of the prize gardens, if you can send them.

I am giving you to-day a few illustrations, taken from an American bulletin, which will show you how some energetic boys and girls on "The Other Side" are getting along with just such clubs as I have suggested. These little "Yankees" seem to "go in" mostly for corn,—you know corn is a great crop in the Central States—but I should think Canadian lads and lassies might have a variety of plants,—not too many kinds, of course, or there would be confusion. How would it be if the girls grew flowers and the boys vegetables?

I should like to hear what you think of this idea, anyway, and what you are going to do about it? PUCK.

Our Junior Beavers. My Shadow.

I have a little shadow that goes in and out with me,  
And what can be the use of him is more than I can see.  
He is very, very like me from the heels up to the head;  
And I see him jump before me, when I jump into my bed.

of the string, and when one would pop out its head, they would pull the string. MYRTLE A. WEAVER.  
(Age 7, Class II.)

Chatham, Ont.

Dear Puck,—I live on a farm. We have the telephone in our house. I can talk to my grandpa and grandma any time.



Exhibit of the Boys' Experimental Club, Nebraska.

I have two miles to go to school. My papa always drives us to school, and comes after us in the winter time. I am nine years old. My birthday was on the 14th of February, St. Valentine's Day. This is the first time I have written. MABEL FITZPATRICK.  
(Age 9, Class II.)

Harrietsville, Ont.

Hope's Quiet Hour.

The Attraction of the Cross.

And I, if I be lifted up from the earth, will draw all men unto Me.—S. John, xii: 32.

The attraction of the Cross is as strong as ever, in spite of the fact that this is a luxurious age. Our Lord called disciples after Him, telling them they must be baptized with his baptism of fiery pain, must suffer, and—if called upon—lay down their lives for His sake. Did this constant holding up of the Cross frighten men away from the service of the Crucified? If we study history, we can see that in times of terrible persecution, the Christian Church made swift progress. When the leaders were beaten, and forbidden to speak in the Name of Jesus, they rejoice that they were "counted worthy to suffer shame for His Name," and in every place within reach they proclaimed their great message—"in those days the number of the disciples was multiplied."—Acts v: 40 ff.

And human nature has not changed. Do you want to get recruits for the mission field? Then, tell people about the hardships and dangers to be endured and triumphed over in heathen lands. The young, who are inspired by the desire to pour out their lives in enthusiastic, generous service, are quick to follow a leader who is not too careful of his own comfort or advantage.

Soldiers will follow to the death a general who shares their hardships and dangers, and will be utterly devoted to one who—like Sir Phillip Sydney—refuses to put the cup of cool water to his own parched lips, but passes it on to the private "wounded worse."

Gannett, in "Blessed by Drudgery," mentions also the case of "a French soldier who begged the surgeon to keep his ether bottle for men hurt worse than he, and stifled his own groan with his bloody handkerchief." Such noble thoughtfulness for others, in the time of agony, is marvellously attractive. Selfish though we may be, in actual fact, we long to be capable of such heroism. In spite of our fear of pain and discomfort, we desire with all our hearts to prove ourselves fine gold when tested by fire. We know that the Kingliness of Christ, as it shone forth on that first great Good Friday, is more glorious and attractive than the luxury of any earthly king. We know that one who serves greatly is far more noble than one who is served by many.

Think of the wonderful attractiveness of that Sufferer on the Cross. He is not straining all His powers to endure the bodily torture with quiet courage. No, He is pouring Himself out for His people, and they are evidently His chief thought. His own pain seems almost forgotten. See how the King reaches out



**WHAT** every cook should know is, which wheat makes the best flour, and why.

Winter wheat is put into the ground in the fall, but does not ripen until the following July. It matures slowly, is soft and very starchy.

Spring wheat is sown in April or May, and ripens in August. It's a flinty, translucent wheat, rich in gluten and contains nearly twice as much nutriment as winter wheat.

## Royal Household Flour

is made entirely from the hard, nutritious spring wheat, carefully selected from all the wheat of this kind grown in Canada.



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Ask your grocer for Ogilvie's Royal Household—just enough to try. You won't mind the slight advance in cost when you see the results in your bread and pastry. 21

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### Please Mention this Paper.

to help! First the false disciple, Judas, is reminded by one word, "Friend," of the treasure of fellowship he is flinging away. Then the safety of the other disciples is secured by the quiet command, "Let these go their way!" The harm that might have resulted from S. Peter's reckless daring is averted by a touch of healing power, and very soon he is given the help needed in a testing-time. Christ is watching over the disciple's trial and careless about His own. He seeks to strengthen Pilate's weak resolve to be just—tries to save the cowardly judge. Then the worldly, frivolous Herod is given the warning of a stern silence. The women, who weep for Him as they follow to Calvary, are gently told to weep rather for themselves and for their children. Then, as the nails are driven through the tortured nerves, self-pity is forgotten in pity for those who "know not what they do," and the King cries out to God for the forgiveness He has a right to claim on their behalf. Soon He is giving His royal promise to the thief who has recognized the King—even when stripped of all outward signs of dignity—and has confidence that He will return to His Kingdom. Then the comfort of a dear mother must be assured, and, as a King, He announces a new relationship. Mary is given a son, and the beloved disciple a mother. The King gives an order which is at once obeyed, for S. John himself tells us that "from that hour" he took her unto his own home.

Then—after everyone else had been thought of—the burning thirst of the Crucified is given some slight expression. He is very human, reaching out for sympathy in agony. Jesus cried, "I thirst," that the scripture might be fulfilled, and yet I think it was also from a natural human desire to have the fevered lips moistened. He was not too proud to ask for a kindness. Perhaps it was partly for the sake of the soldiers, that their attention was called to an opportunity they might otherwise have missed. Because he cried, "I thirst!" we have the comfort of remembering that one sacramental outward token of human fellowship was given to cheer that Heart which burned with passionate love.

I am not considering all the "Seven Words," just glancing at the attractiveness of One who found it quite natural to put self aside, even in the hour of agony and death. It could not have been so perfectly natural and beautiful unless He had been accustomed to think of others all through life. If a very difficult thing is done easily, without effort or strain, then we know that years of practice have worked up to this peak of accomplishment. I am speaking to-day of the attraction of the Cross. If we are attracted, and long to follow Christ in His unselfish thoughtfulness for others and forgetfulness of His own pain, then we must make good use of our opportunities and keep ourselves constantly in practice. It was not only to the Apostles, but also to "the people," that the King of heroes said: "Whosoever will come after Me, let him deny himself, and take up his cross . . . for whosoever will save his life shall lose it; but whosoever shall lose his life for My sake and the gospel's, the same shall save it."

Are we afraid to follow One who sets His fact like a flint as He climbs the hill of Duty—the hill called Calvary? Do we shrink back from the Cross? And yet He is drawing us after Him.

"Why dost Thou beckon and call me so? I fear to follow Thy path of woe!  
—Never fear! In the ways of pain,  
They who follow find richest gain."

Just because the Cross is too great for our strength—and yet so attractive—we can't afford to lose even one day's drill in unselfishness. The followers of the Crucified are required to deny themselves, and cheerfully take up the little daily Cross which seems so commonplace. Are we doing it? Are we at the same time trying to make life better and brighter for all around us? Or are we talking constantly of our pains and troubles, indulging in weak self-pity, careless of the interests of other people. We are either growing stronger or weaker each day. God gives us plenty of chances to lay aside our own cherished plans in unselfish consideration for others. Are we climbing higher on these stepping-stones, or are they stumbling-blocks, making us cross and unhappy?

DORA FARNCOMB.

## 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.]

### Re Furnishing.

Dear Dame Durden,—It seems we come to you when in difficulty, if at no other time we can buckle up our courage to write to your most worthy department.

My problem is to know "just" how to furnish a large room, with a northern and eastern exposure, for a guest dining-room and a family living-room, with not more than ninety dollars. This room is finished in light oak. Would it be good taste to have Early English furniture? I really do not care for these "shiny" pieces, where they are in constant use. Do you advise a wool art square? The only objection I know is that they do not keep their place unless tacked, and, if tacked, they stretch to the tacks, which look rather unsightly. Is there any way of remedying this? Is it possible, by going direct to the extensive dealers, to get rugs sixteen feet square, or even fifteen? I have been scanning catalogues, but can find none larger than twelve feet square. Also what is the proper space allowed from the edge of rug to wall? I believe there is some kind of varnished and grained paper that is used to cover an unsightly floor, or the border of floor ready for rug. Have you had any experience with it?

I know this is a dose of questions, but I am sure you will be able to give me sane advice. Any other suggestions you may wish to offer on furnishing any room, I shall be most thankful for. I want "simple and comfy" as my motto. Lincoln Co., Ont. MADGE.

With the light-oak finish, I am of the opinion that you will have to have oak furniture, or oak-veneered furniture, to match. Early English staining is good, but the woodwork and paper must harmonize, or it looks out of place.

If you choose the wool art square, tack strips of buckram all along under the edge before tacking; this will prevent, to some extent, the stretched appearance. Personally, I do not like tacked-down rugs at all. The ideal rug is heavy enough to lie flat, while at the same time it can be easily removed for sweeping. Of course, you can hardly expect to get a good one of this kind under \$30.

How would you like a square of good, heavy linoleum? This is very satisfactory, as it is sanitary, and very easily swept. Very heavy Japanese matting is sometimes used also,—or there is another alternative,—paint the floor, or wax it, if it is hardwood, and use three or four small rugs. Many houses nowadays have this plan throughout, the drawing-room floor, of course, being usually parquetry, or inlaid wood.

In Eaton's catalogue, I find Wilton squares advertised at 11 ft. 3 in. by 13 ft. 6 in.; also Axminster squares, 9 ft. 10 in. by 13 ft. 1 in., and Tapestry squares, 12 ft. by 13½ ft. You might write this, or any other extensive firm of good standing, about the matter.

The space between rug and wall is quite immaterial. It may be two feet, three feet, four feet, or even more, depending on circumstances. There is no hard-and-fast rule. If the floor is unsightly, have it well planed, then treated with "floor finish." If it is too bad for even this, a close Japanese matting might do. I don't think I like the idea of varnished paper, but perhaps it would be all right. It would probably be sanitary, and easily swept.

Re furniture.—For a dining-room, have a good extension table and good chairs, to begin with. Have a pretty wall-finish, and curtains to match, sash depth, with valance across the top. Since the room is to be a living-room also, some easy chairs, and perhaps a couch will be necessary. A built-in cupboard will do splendidly for the china, and do away with the necessity of buying an expensive sideboard or buffet. Homemade window-seats, and a few house-plants and cushions, will add to the furnishing if more be necessary.

The coloring, of course, is important

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For a northern and eastern exposure, the "warm" colors should be chosen, as this room will not have very much sunlight. Brown and fawn tones would be good. Even buff might be used for the walls. Or soft olive for the leading tone, would be lovely. There are beautiful "foliage" tapestry papers now in beautiful soft greens. If I were you, I would have a good paper at all events, good table and chairs, and wait for the rest. Will your room have a fireplace?

**On Training Children.**

Dear Dame Durden,—Thank you very much for answering my inquiry re white for elderly ladies. It settled very satisfactorily a little controversy. I enjoy the Ingle Nook very much, and often find very helpful things. There do not seem to be many letters from the Province of Quebec, and if there is anything in this that you would like to put in, I would be glad to be admitted as a "Nooker."

This part of the Province of Quebec is very beautiful. My home is just near a very pretty lake, about sixty miles from Montreal, which has many visitors from the city in the summer. This county has still a majority of English-speaking Protestants. The farms in this vicinity are up-to-date and productive, and our husbands attend their institutes and conventions, fairs and poultry shows, and their names often appear in this paper, but I have never seen anything from their wives. We have no women's institutes or conventions. The women are, for the most part, hard-working, fine cooks, and thrifty housekeepers. I am sorry to say I cannot like to cook, and cannot enjoy my meals if I have the preparation of them.

I have four children, and do their sewing, and I'd like to air my views a little about the training of little ones. First, I firmly believe in beginning right. Teach them what they must not touch, or destroy, the first time they attempt it, not put it out of reach and wait till they are older to train them to leave it alone. You will be surprised how young they can understand, and how much easier to mold to your will than they are when older, and then, never give in if you attempt anything. When they find the first time that they cry for a thing that it does not bring it, they are not so apt to cry again. I do very, very little whipping, it has never seemed necessary, though some say I will find it different with a boy. My son is only five months old, but I have never seen a child yet that I did not rule if I tried, and I have been a teacher as well as a mother. I love children, and enjoy teaching and training them, and cannot but feel that I have had a certain amount of success with them. When it was remarked one day that my little babies were all so good, I said, "I think I have a 'knack' of getting on with little ones." They asked what knack is there in letting a baby sleep all day? and I said the knack was in getting them to lie there without crying, but I'll tell you the secret. Commence in the beginning; don't fuss and run if they move, wait till they ask plainly and loudly for attention unless you know it is needed, and you will find they don't need it nearly so often, but will stretch and grow so happily all by themselves. And now I want to ask some suggestions for stenciled portieres for my drawing-rooms. What materials would be pretty, and how should they be finished, top and bottom, if you please? "RURAL," P. Q.

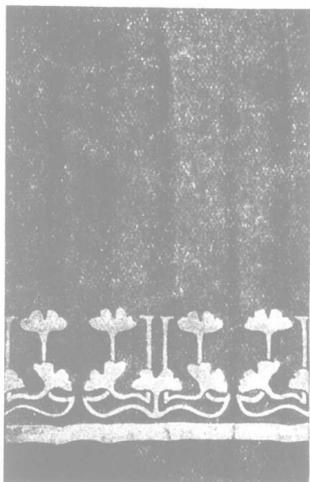
**The House in Spring.**

Every housekeeper has noticed how shabby things in the house seem to look in spring. When the grass seems greener and longer every day, and when the plum trees show their little white knots, and presently burst into feathery bloom, and the somewhat smoke-begrimed or dust-begrimed walls do begin to look just a tiny bit discreditable; and then the bright, warm sunshine,—how it does seem to magnify every defect just as soon as it gets indoors! Quite, in fact, as though it were trying to say, "What an ill-looking spot you have in here! Come out of it! Come out into the pure air where everything is clean!" The wisest of us will, of course, live out-of-doors a great deal during the sum-

mer, but we must do something with the old house for all that; and so we re-paper, or rub the walls down with bread, and beat the rugs or carpets, and restain the floor, and scrub, and wash, and "sun," until things begin to look quite sweet. Usually, too, we pull the furniture round a bit, just for a change, and when we have freshly-laundered curtains at the windows and "tops" on the cushions, we quite understand what Aunt Sarah meant when she said she thought Heaven would be "just like when you have the housecleaning finished."

Often a bit of fresh paint works wonders, at very little expense; and this reminds us of a description which we read not long ago in "House Beautiful." We give it to you verbatim:

"A writing-room was seen lately in an apartment which offered many good sug-



Design for Applique.  
Portieres or window curtains.

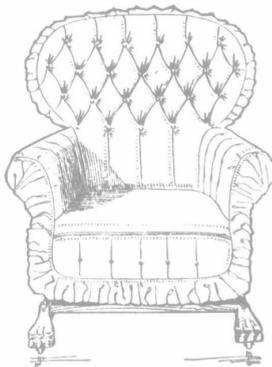
gestions. It was planned by a busy magazine writer, who affirms that her surroundings have much to do, not only with the pleasure of her work, but with its results. The room chosen was the original parlor of the apartment connecting with a small 'back parlor.' The latter was turned into a bedroom, and made to conform to the color treatment of the larger room. The woodwork was painted deep ivory, the walls calcimined a tone several shades deeper than the trim—for a light effect was desired, and only a moderate sum could be expended. The owner of the room possessed an old desk, a desk chair and a drop-leaf table, all of mahogany. The table was small, and was placed against the wall with one



Conventional Stencil Design.

leaf turned up in the old accepted way. A kitchen table painted ivory-white was made to serve as a magazine table; and a very good one it was, too. Kitchen chairs of pine were painted in the same manner, and a small garden settee went through a like treatment—nor did they swear at the old mahogany when they were grouped together. This woman chose old-fashioned shapes, and she depended on cretonne to make the relationship entirely harmonious. Flat cushions

This Luxurious **Turkish Rocker** Only \$12.95



ONE of the most remarkable values that have been produced in years. The illustration has been drawn from the photograph, and is a faithful picture of the rocker. It is a most comfortable piece of furniture, generously filled with best oil-tempered springs and covered with highest quality imitation leather, which will wear like iron. It has patent spring platform construction, and feet are elaborately carved. Equal in appearance to rockers costing \$35.00 and \$45.00.

Write for our large illustrated Catalogue No. 7, containing over 500 designs of the newest furniture. Sent free upon request.

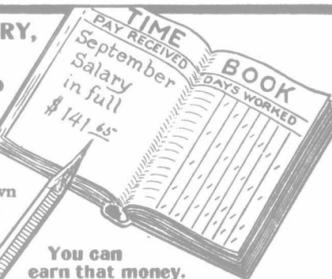
**The Adams Furniture Company, Ltd.**  
Canada's Largest Home Furnishers. TORONTO, ONTARIO.

**TO EARN THAT BIG SALARY, LEARN RAILROADING.**  
GET OUT YOUR LEAD PENCIL AND DO A LITTLE FIGURING.

Whatever your present monthly salary may be, multiply it by 12, and find your yearly income. Will it amount to \$1,699.80, the salary shown above? Do you earn one-half that amount? If not, why not?

**FIREMEN AND BRAKEMEN**  
Earn from \$75 to \$150 per month.

With the rapid progress of railway building in Canada it takes only from two to three years to be advanced to engineer or conductor, whose salaries are from \$90 to \$185 per month.

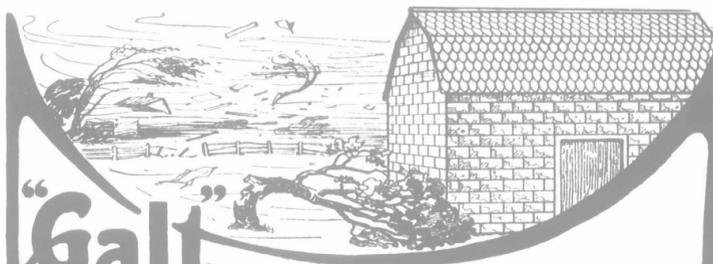


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We teach and qualify you by mail in from 8 to 14 weeks without loss of time from your present work. Positions are secured; in fact, there are many openings right now if you were qualified to fill them. Our Course is the most complete treatise on the subject of Railroading in existence. We defy any school to show a course anywhere nearly as thorough. Don't tamper with your education by buying cheap bargain courses. Ours is the only School of its kind in Canada with text-books written for use on Canadian Railways.

Our free booklet tells all about our system of teaching. When writing, state age, weight and height. Address:

**THE DOMINION RAILWAY SCHOOL,**  
Dept. F  
Winnipeg, Canada.



**"Galt" Shingles**

The new "Galt" Steel Shingles and Sidings are the surest protection from the fiercest storms that rage—yes, even lightning storms.

They are made from the Best British Galvanized Steel Plates, which shed lightning like water from a duck's back.

No wind, rain or snow can penetrate the new Gale-proof, closed-end side-lock or the continuous interlocking and overlapping bottom joint. They are twice as securely nailed as any other—that's very important.

They are easily and quickly laid, and the Bold Gothic Tile pattern makes a very handsome roof.

They cost no more than ordinary metal shingles—why not have the "Galt Kind?" Our free Catalog "B-3" explains all about them.

**THIS IS THE SHEET METAL AGE.**

THE GALT ART METAL CO., LIMITED, GALT, ONT.  
Sales and Distributing Agents: Dunn Bros., Winnipeg and Regina.

Please Remember to Mention "The Farmer's Advocate" When Writing



## Old Dresses Made New and Handsome

Don't think that because last year's dress has become faded and lost its freshness that you will have to have another now.

Don't think that because the shade is not in fashion that you'll have to put it away. Because with

## Diamond Dyes

you can dye it any of the new colors, restore its beauty, and you can wear it over and over again.

You may have tried dyeing some old material before, and were not satisfied. But it wasn't Diamond Dyes you used. Diamond Dyes are far superior to any in the world, and give perfectly splendid results.

After trying them once you'll use them with pleasure on many things you have in the home that seem too good to throw away.

There are a thousand uses for Diamond Dyes, and each one will save you money.

### You Take No Risk with Diamond Dyes

You can use Diamond Dyes and be sure of the results. You can use them with safety on the most expensive piece of goods, and there is no danger of the goods becoming spotted or streaked or harmed in any way.

Faded hosiery, silk gloves, veils and feathers can be made like new with their use.

Portieres, couch covers, tablecloths, ribbons, sashes and trimmings of all kinds are given new life and added beauty.

And for dyeing dress goods, faded garments, skirts, waists and suits, Diamond Dyes are invaluable, both in economy and usefulness.

There is no other dye made that will do the work of Diamond Dyes. There is no other dye that you can use with safety to the material.

Diamond Dyes are "The Standard of the World," and the only dyes *perfect* in formula, *positive* in action, *certain* in result.

#### THE TRUTH ABOUT THE USE OF DYES.

Diamond Dyes are the Standard of the world, and always give perfect results. You must be sure that you get the *real* Diamond Dyes and the *kind* of Diamond Dyes adapted to the article you intend to dye.

**Beware of imitations of Diamond Dyes.** Imitators who make only one kind of dye, claim that their imitations will color Wool, Silk or Cotton ("all fabrics") equally well. This claim is false, because no dye that will give the finest results on Wool, Silk, or other animal fibres can be used successfully for dyeing Cotton, Linen, or other vegetable fibres. For this reason we make two kinds of Diamond Dyes, namely: Diamond Dyes for Wool, and Diamond Dyes for Cotton.

Diamond Dyes for Wool should not be used for coloring Cotton, Linen, or Mixed Goods, as they are especially adapted for Wool, Silk, or other animal fibres, which take up the dye quickly.

Diamond Dyes for Cotton are especially adapted for Cotton, Linen, or other vegetable fibres, which take up the dye slowly.

"Mixed Goods," also known as "Union Goods," are made chiefly of either Cotton, Linen, or other vegetable fibres. For this reason our Diamond Dyes for Cotton are the best dyes made for these goods.

**Diamond Dye Annual—Free** Send us your name and address (be sure to mention your dealer's name and tell us whether he sells Diamond Dyes) and we will send you a copy of the famous Diamond Dye Annual, a copy of the Direction Book and samples of dyed cloth, all FREE. Address

**THE WELLS & RICHARDSON CO., LIMITED.**  
200 Mountain Street, Montreal, P. Q.

were made for the chairs and settee of cretonne, the same shade as the paper, over which was a colorful pattern in old pink, greens, a dash of faded blue, and a warm mahogany brown, the latter only a suggestion.

"The curtains were a single hanging of the most transparent scrim that could be found. It took a week of intermittent searching to find a scrim that was not too white, or too tan, or too something else. When found, it went up at the windows without further adornment. A valance was considered and dismissed as superfluous with windows low and broad and somewhat obstructed by surrounding buildings. More of the cretonne seemed to be needed, and so a cover for the table was made. This helped out wonderfully in the balancing of plain and figured surfaces. A big waste-basket, a lamp-shade, and a three-fold screen of cretonne, also gave life to the interior, and with rugs of 'rag-style' on the mahogany-stained floor, an extremely livable place was secured."

Ivory-white, even ivory deep enough to be classed almost as cafe au lait, may be too delicate to suggest itself as part of a color scheme for the much-used living-rooms of a farmhouse, but the treatment described above would be admirable for a guest-room, while the whole idea is suggestive even for the much-used apartments. There are paints of deeper colors that might be used in place of the ivory, provided other surroundings were harmonious; while cretonnes of good quality (it pays in hard cash to get them at \$1 a yard, at least) are exceedingly durable.

The decorative designs which accompany this article may prove useful to "Rural" and others desirous of putting their own work on window-curtains or portieres.

The appliqué design may be executed in broadcloth on any plain material preferred (soft canvas, casement cloth, etc.) for portieres, or in linen on net for window-curtains. First stamp the design on the broadcloth or linen, cut it out carefully, and paste it on the material to be decorated, then fasten by buttonholing around the edge over two or three strands of floss.

The stencilling may be done, as described different times in these pages, on casement cloth, cider cloth, or soft canvas for portieres, or on raw silk, scrim, factory cotton, or cheesecloth for window-curtains. If liked, the material may be dipped in strong coffee before stencilling, to give a deeper shade. White material may be changed to a pretty cream, by dipping in saffron tea. Finish by a broad hem on the lower edge, and a narrow one where the rings are fastened.

#### For Fish Day.

**Boiled Dried Cod.**—Soak in warm water. Boil in equal parts of milk and water. Take out, drain, and serve with a milk sauce into which hard-boiled egg has been sliced. A few slices of lemon on top makes a nice garnish. Some cooks always put a little grated nutmeg in fish sauce.

**Boston Fish Balls.**—Pound together  $\frac{1}{2}$  lb. cold fish, 3 dessertspoons chopped suet, a little butter, 1 cup breadcrumbs, and 2 teaspoons anchovy sauce (which may be bought in bottles.) Season; mix with a beaten egg. Make into cakes and fry.

**Stuffed Fish.**—Take any large, fresh fish. Fill with a stuffing as for fowl, and bake.

**Fried Fish.**—Cut in slices, take all the bones out of each slice, dip in beaten egg, then in breadcrumbs, and fry.

**Cream Sauce for Fish.**—Melt 1 tablespoon butter in a granite pan. When bubbling, stir in 1 tablespoon flour, stirring till cooked. Add gradually 1 cup hot milk. Season with salt and pepper, onion, chopped parsley, curry, mustard, celery salt, lemon juice, mushrooms, nutmeg or mace, as preferred.

#### Orange Marmalade.

March is the best month for making orange marmalade. Cut two dozen oranges in quarters and slice very fine, removing the seeds. The oranges may be all sweet, all bitter, or part sweet and part bitter, as preferred. Mix with them, if liked, two lemons, also sliced very thin. Measure the juice, and add enough water to make three quarts of liquid. Put all into a stone crock or

## Catching The Thoughtless

The only known way to build modern, simple cream separators is like Sharples Dairy Tubulars. But Tubular patents prevent imitation. So competitors, being unable to copy Tubulars, still make common disk filled or other complicated machines

and try to make thoughtless buyers believe such "fillings" are necessary.



NO DISKS NEEDED

**REMEMBER!** Sharples Dairy Tubulars have no disks or "fillings," do not need them—yet produce twice the skimming force, skim several times cleaner, skim faster, wash several times easier, last several times longer than common machines. The World's Best. The manufacture of Tubulars is one of Canada's leading industries. Sales easily exceed most, if not all, others combined. Probably replace more common machines than any one maker of such machines sells. Don't be caught among the thoughtless.

Write for Catalog No. 193

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

## YOUR FACE

Your features may be the very best; what about the condition of your skin? Is it fine and clear, without spots or blotches, pimples, eczema, psoriasis etc.?

### Our Home Treatments

make a poor skin good; remove tan, freckles and discolorations; cure skin and scalp diseases when other remedies fail, and make the skin fine-grained and close-pored. These treatments are guaranteed to give satisfactory results.

### Superfluous Hair, Moles, Warts, Red Vels, Mouse Marks, Cowlicks,

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**Cowan's Perfection Cocoa**

Let the children drink all they want. Healthful, nutritious, delightful.

Absolutely pure. That rich chocolate flavor. Very economical.

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## CLOVER SEED

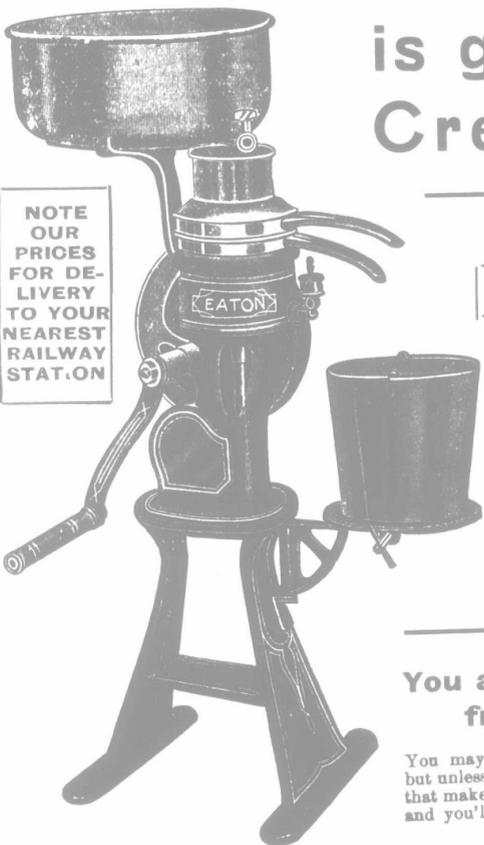
No. 1 Alsike ..... \$ 8 00 per bush.  
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# EATON'S CATALOGUE

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## The Profit from your Herd of Cows is governed by how much Cream you have to sell



NOTE OUR PRICES FOR DELIVERY TO YOUR NEAREST RAILWAY STATION

## THE EATON CREAM SEPARATOR

SKIMS CLOSE AND CLEAN  
RUNS EASY

You are assured of obtaining the last grain of Cream from the milk with an EATON to do the work.

You may have the best herd of cows in the country as far as milk flow and butter fat in the milk goes, but unless your Separator skims clean you are not getting all the cream from the milk, and it's the cream that makes the money. Every particle of cream left on the milk is lost profit. Try the EATON Separator and you'll increase your profit because you get all the cream.

SEE THE NEW SPRING AND SUMMER CATALOGUE, PAGE 223

### Saving Money on Your Household Needs Depends on You

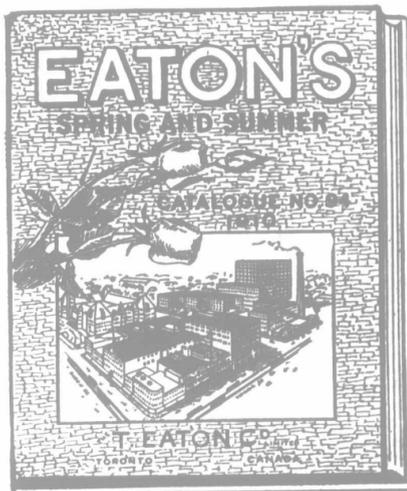
It's to your interest and profit to study the goods and prices in this Catalogue. It has been prepared with the idea of making it convenient and easy for the farmer to choose goods that will meet with his desires at a price that is lower than he has been used to paying. Many thousands of our present customers buy all their household and farm needs from the pages of this Catalogue.

Those who have traded with us continue to do so, because they realize that the saving of a few cents on an order of goods is just as profitable as securing a higher price for farm produce.

It's only by sending an order for the goods you require that brings to you the full advantages of our low prices. Don't stop with sending for a saw or hammer, a suit or a pair of shoes—buy a cultivator, cream separator, a wagon—in fact send for every single thing you or your family needs. Thus you will be reaping the full benefit of the large careful buying and economic selling that make our prices so reasonable. If you can save 10 per cent. or 20 per cent. per week or per month on your purchases and still have better goods, you know that in a short time your savings will be very useful for many different things you really would like to have for yourself, or for your family or for your home.

Remember that if the goods are not satisfactory for any reason we return your money in full and pay all transportation charges.

Decide now to make a determined effort to get every benefit for yourself which thousands of other families are enjoying.



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Madam!

"LEADER" Churn is made of good white oak—thoroughly seasoned—strong as iron—and sweet and clean. You know that churns, made of glass or crockery, will chip, crack and peel—and they will get broken, no matter how careful you try to be. "LEADER" Churn is absolutely sanitary—easy running—and can be used either sitting or standing. If your dealer does not handle it write us for full information. CUMMER-DOWSWELL LIMITED, - Hamilton, Ont.

**NEW TELEPHONE DIRECTORY**

THE BELL TELEPHONE COMPANY OF CANADA is about to publish a new issue of the

**Official Telephone Directory**

FOR THE DISTRICT OF WESTERN ONTARIO, including LONDON

Orders for new connections, changes of firm names, changes of street addresses, or for duplicate entries, should be handed in AT ONCE TO

C. H. BEARD, Local Manager.

**Farms for Sale**

All kinds and sizes of farms in Western Ontario for sale or exchange. Send for our catalogue of farms for sale in any county.

THE WESTERN REAL-ESTATE EXCHANGE, LTD. London, Ontario.

Nurse (announcing the expected)—"Professor, it's a little boy."  
Professor (absent-mindedly)—"Well, ask him what he wants."—Boston Transcript.

**Suffered Terrible Pains From Her Kidneys For Nine Months.**

For Backache, Lame or Weak Back—one of the commonest and most distressing symptoms of kidney inaction, there is no remedy equal to Doan's Kidney Pills for taking out the stitches, twinges and twinges, limbering up the stiff back, and giving perfect comfort.

A medicine that strengthens the kidneys so that they are enabled to extract the poisonous uric acid from the blood and prevent the chief cause of Rheumatism.

Mr. Dugald A. McIsaac, Broad Cove Banks, N.S., writes:—"I was troubled with my kidneys for nine months, and suffered with such terrible pains across the small of my back all the time that I could hardly get around. After taking two boxes of Doan's Kidney Pills I began to feel better, and by the time I had taken three I was completely cured."

Price 50 cents per box, or 3 for \$1.25, all dealers or mailed direct on receipt of price by The T. Milburn Co., Limited, Toronto, Ont.

When ordering specify "Doan's."

granite saucepan, cover, and set in a cool place overnight. Turn into a preserving kettle, and bring slowly to the boiling point, simmering until the peol is very tender. Now stir in a pound of sugar for every pint of juice, and boil until the skin is clear. Remove from the fire, and when cool, turn into jelly glasses, covering with melted paraffine. Some remove the skins in quarters and boil them separately, then drain, cut into fine bits, and add to the marmalade before it is quite cooked.

**About Raising Mushrooms.**

Have any of our members ever tried raising mushrooms? Can they be grown at any time of the year? I should be glad if someone will answer this query? D. D.

**A Competition.**

A competition, just for a change, for the Ingle Nook. We will give cash prizes, or books, as preferred, for the most helpful letters, on the subject, "My Vegetable Garden." Send essays so that they may reach this office not later than two weeks after the date upon which this paper is issued.

**The New Hats.**

"Nothing," said a writer in a recent number of the fashion paper, "Queen," "seems to interest the modern woman so much as anything she can put on her back."

Hats of course, come in for a goodly share of attention, and rightly so, since nothing can so make or mar a woman's appearance as a becoming or grotesque hat. The millinery openings are upon us, and it is a pleasure to see that they are affording endless variety, so that everyone may be suited, and not all committed to the same tiresome contour of head-lines.

The "style" in extreme, is, of course, the large hat, especially the kind which conforms to "Napoleonic" lines, somewhat three-cornered, and flared up front and back; but if one prefers a smaller hat, there is plenty of variety, some especially - pretty turban models being shown.

Ostrich plumes will be greatly worn during the spring. Among flowers, fady-looking roses, especially small ones, are the most favored. Black velvet facings for hats promise to be quite the "rage." These are the predominant features of the spring millinery in a nutshell.

**The Roundabout Club**

**Wireless Telegraphy.**

Would you kindly answer the following question through your columns: What is the principle upon which a message is sent by wireless telegraph? M. A. C. Halton Co., Ont.

Ans.—A stone is dropped into still water, the waves started thereby dilate and travel even to the farthest edge of the vessel or pond. Those waves transmit their motion to anything light on the water, and free to adopt it (the motion). They are very slow.

A gong is struck; its vibrations set the air in motion—air waves—and these travel out in all directions, just as the water waves, but they are much more rapid than those of the water—somewhere between 16 vibrations per second and 44,000 per second to produce sound. Like the water waves, they are capable of setting up vibrations in bodies suitably designed, and free to adopt such. For instance, they set the ear-drum vibrating, and we have the sensation of sound; or, again, the voice will cause a piano to resound if the proper note is struck.

In the case of light we again have vibrations. The molecules of a red-hot coal vibrate at the rate of four hundred million million times a second, and they transmit this same vibration to the ether—ether waves. To gain some concrete idea of a million million: If a person set out to count it, counting four every second, night and day, without any rest, it would take about 8,000 years to count one million million. Thus we see that these waves are inconceivably rapid.

Now a flash of lightning looks like one continued discharge of electricity, but



**Raise The Crop That Never Fails**

That crop is poultry—the crop that knows no "bad years." You can raise that crop on your farm, no matter where—abouts in Canada it is. You can raise poultry successfully, make money doing it, and be sure of a good market for all you do raise. You need make no heavy investment to start at it, you need no elaborate equipment, you don't have to give up a big slice of your land to poultry-raising, even if you go into it on a pretty big scale. Nor is it hard work to

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Another very important thing about The Peerless Way is that our interest in your success—doesn't lapse when your Peerless outfit is shipped. If one Peerless customer should fail at poultry-raising because we did not do all we should have done to help him, we would feel disgraced. So we try to see to it that no Peerless user fails. Our Board of Experts gives advice, counsel, detailed instructions, to any Peerless user who wants them. And the advice is so plain, so explicit, that a child could not misunderstand it.



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Let us ship you this and trust you for it. We pay freight and give you a 10-year guarantee.

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"More Bread and Better Bread."

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MILLS AT WINNIPEG, GODERICH, BRANDON



science has shown that such is not the case, but that a lightning flash is oscillatory producing vibrations—electric waves—of a frequency of about 230 million million per second, a shade over half as rapid as those of red light. And every discharge of electricity, no matter how produced, is of the same nature, and these electric waves radiate from the source of disturbance just as water waves, sound waves or light waves do. Moreover, like the others, they have the power of setting up induced vibrations of a nature similar to their own, in bodies and instruments suitably designed and free to adopt them. This, then, is the principle by which wireless messages are sent.

The outfit must, therefore, consist of two different parts—one to produce the electric waves, the other to receive them. The essential feature of the former is the electric spark or discharge, for the production of which an induction coil is used. A current to operate the coil is derived from a dynamo of some sort. The circuit from the dynamo is provided with a key, and while this is closed sparks pass between the poles of the coil, setting up series of electric vibrations, which to carry over long distances must be of great intensity, and of suitable wave length. Referring back to the water waves, we know that if a small pebble is dropped into water the waves become so faint at a short distance from the point of disturbance, that they are scarcely perceptible, and further out they are lost entirely to our coarse vision, though as a matter of fact, they are transmitted even to the farthest part of the water; but, on the contrary, if a very large stone is dropped into the water, the waves from it are so strong and so large that they are perceptible even at a great distance from the source. In the same way the electric waves, to carry over great distances, must have suitable intensity and wave length, to secure which large condensers and high towers are necessary. In general design, the receiving station is the inverse of the transmitting outfit. The towers and condensers intercept and intensify the vibrations that have travelled from the transmitter. These produce currents in the induction coil, and ring a bell which is in the circuit with the coil. In this current there is a part not found in the transmitting outfit, namely: a "coherer," but it takes the place of the key. It consists of metallic filings in a glass tube, through which the currents must pass, in their natural state. These filings lack of any definite arrangement, and have a great resistance to the current passing through. When a series of waves arrives, however, it causes these filings to arrange themselves symmetrically, and in close contact, so that a current will flow through them readily. At this stage the bell is rung by the passing current. The last act of the current, however, is to operate a little hammer, which taps the tube containing the filings, and decoheres them so that the bell will not ring until the next series of waves arrives.

W. H. DAY.  
O. A. C., Guelph.

### Our Literary Society.

#### COMPETITION III.—A MIDWINTER REVERIE.

Results of this competition are as follows: (1) "Honor Bright," (2) "G. H. S." and Mrs. W. E. Hopkins, equal.

Many others sent very good papers, but were not careful enough to stick to their text, probably owing to some confusion as to what the word "Reverie" really signifies. Those judged good enough to be placed on the Honor Roll were: Agnes Hunt, Algoma Dis.; Penelope, Lambton Co.; "David Copperfield," Lambton Co.; Agnes McKim, N.S.; T. J. Rutherford, Grey Co.; "Moreh," Brant Co.; "Helpmeet," Halton Co.; "A Reader," Pr. Ed. Co.; T. R. Skippon, Middlesex Co.; M. E. G., Peterboro Co.; S. E. Oill, Lincoln Co., Ont.; "C. H. R.," York Co.; W. Hargrave, Waterloo Co., Ont.

#### A Midwinter Reverie. FIRST-PRIZE ESSAY.

Pleasant is my sojourn beneath Southern skies; glorious the sunshine in which I daily bask; profuse and beautiful the flowers, especially the roses, which I love so well; yet, oh, my comrade, my heart

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Why not take a cup of BOVRIL regularly every morning? It invigorates the whole system, fortifies you against the changeable weather, and helps you to do the work of the day. BOVRIL is easily made—a cup, hot water and a spoonful of BOVRIL are all you need.

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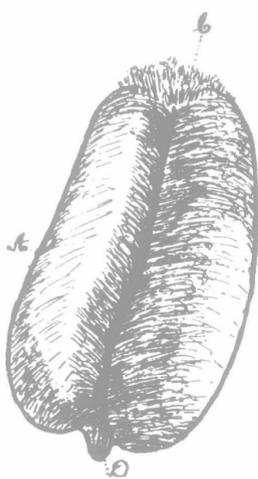
**140-ACRE farm for sale,** owing to death of proprietor. Good buildings. 40 acres of pasture watered by river. Small bush. One mile from town and butter and cheese factory. (Miss) Alice M. Nicholson, Strathroy, Ont.

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# SMUT

and its attack upon grain



- A, Grain of wheat, magnified 15 diameters.
- B, Crease, where many smut spores lodge.
- C, Brush, where smut spores also lodge.
- D, Germ end.
- E, Smut spore magnified 600 diameters.
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Formaldehyde coming in contact with smut spores causes them to dry up and wither and finally die without injuring the wheat.

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Situated on the St. Lawrence River on mile west of Prescott, Ont. 210 acres, about 25 acres woods; in fine condition. This is a rare chance for a farmer to go into cattle and dairying. Terms favorable. Apply to

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We have the following selected Seed Grain to offer, and varieties true to name:

**OATS.**—Tartar King, Ligowa, Banner, White Jewel, Big Four, Abundance, Sensation, Improved American, Irish White, Black Joannette, 50-pound Black. Any of the above 65c bush. Bags extra, f.o.b., Guelph. Early Oats.—"Daubenay," 80c bush. New Varieties.—White Wave (imported), \$1.75 bush. Bumper King, 85c bush.

**NEW SEED BARLEY.**—O. A. C. No. 21 (six-rowed), selected seed; a big yielder, good stiff straw, \$1.25 per bush; 10-bush lots at \$1.20. Manchouri Barley (six-rowed), 80c bush. Black Hulless Barley, \$1.30 bush.

**SPRING WHEAT.**—Wild Goose, \$1.35 bush.

**PEAS.**—Early Centennial, Golden Vine, Prince Albert, \$1.20 bush. Canadian Beauty, \$1.30 bush.

**RED CLOVER AND TIMOTHY.**—Fancy Red Clover, \$11.00 bush. Choice No. 1, \$10.50 bush., f.o.b. Guelph. Fancy Timothy, \$3.00 bush., Lucerne or Alfalfa, \$13.00 bush. Alsike, \$9.00 bush.

Write us for prices. State kind wanted. We carry other seed grain not mentioned here. Terms cash with order.

X Bags, 25c each; Hochelaga Bags, 30c each; 10c each. All prices f.o.b. Guelph.

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Seedsman,  
90 Macdonnell St., Guelph, Ont.  
See later announcement re Seed Potatoes and Corn.

longs for yet one glimpse of the glorious midwinter in my own fair Northland! This is the season when King Winter crowns her "The Land of Sunshine and Snow," and beautiful to behold must my country be, in her white snow-garment and diadem of brilliant frost gems.

From my hammock in the garden to-day I looked beyond the orange groves, where old Mt. Baldy rose majestically heavenward. And the sunshine glinting on the snow of its lofty summit suggested to me memories of home. Because, thought I, you are a fitting emblem, I shall rename you Mt. Canada, and you shall be to me a silent friend, strengthening and comforting my homesick heart. But when I tried to explain to the impassive Southerners, they smiled indulgently, as at a sick child's fancy. Their incredulity moves me not. Comrade, we are of the Northern-born, the hardy children of winter's stormy cradling! The God of our fathers, who gave us our fair land, bestowed also the gift of the rigorous winter season, that He might instil in us those enduring qualities of purity, strength and endurance, attributes of a nation which He has chosen for a high purpose and a great work.

Thus I meditate. The dream mood is upon me, and I would essay to express in music these "fancies which break through language and escape," could my fingers but touch some chord responsive to my mood. Ere I find it, I know it must be a reverie,—music soft and dreamy, yet clear and exceedingly sweet, and the keynote shall be the glad Midwinter.

Oh, hush! Full and sweet are the chords of the introduction! They tell you naught of summer heat, of drooping flowers or lazy droning of bees, but of the rushing of the great west wind through the pines; of the exquisitely formed top of a snow bank, drifted white and deep; of a curl of smoke from a chimney, wreathing in white clouds up into the intense blue.

"Piano Adagio!" Softly but with a slow movement must the accompaniment for dreamy thought be played! In fancy I behold softly-falling flakes, which come like white angels of mercy to carpet the freezing earth and to bury the dead seared leaves, which, phantomlike, are driven before the cold north wind. Strike I a minor note of sadness, think you? Not so, comrade mine! Know you not that the fallen leaf is but gently loosened and detached to make room for the growing bud? All is life; that which we call death is but a passing into greater life!

But this is not Midwinter. It is but the clarion call for his hosts to assemble. Now comes the driving east wind, sifting the dry snow into every cranny and crevice; the days and nights of hard frost; a penitence pause of rain or sunshine, or the tempering south breeze; then more snow, more cold!

Stormy is the arrival of the Midwinter at last! Animated, but deep and resonant, the descriptive tones of the accompaniment! Hear you the passionate note of the wild west wind, which rocks and sways the bared limbs of the forest until they roar with the sound of angry breakers on a distant beach? For days in a veritable tempest he drives the snow earthward, then snatches it up once again to fill the paths which men have made, or pile drifts across their highways. All the night he whistles his challenge to men to come out to battle or sighs through the tree tops of the pines. With provoking insistence, he hurls the dry frozen snow against the window panes, as if resenting the picture of warmth and peace within. In chagrin he beats against the closed doors which shelter the contented cattle, and drives into their retreat all the little wild things of the wood. He sweeps across the water with his frosty breath, congealing its surface and silencing the babbling of the streamlets while ruthlessly he bends low and breaks the slender reeds of the marsh.

But *decrecendo!* Softer the music which tells of Midwinter in a calm and even more beautiful mood; for, while we admire as much, we fear less! Wonderful to behold and beautiful beyond description is a winter sunrise—the sun, rising a great ball of fire, throwing athwart the clear heavens its warm crimson tints and touching myriad frost particles into brilliant gems, while the

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Will End Your Roofing Troubles



If you will write to-day for a free sample of "Amatite" the end of your roofing troubles is in sight. After you have submitted it to every test that you can think of, you will be prepared to order it not only for your new buildings, but for your old roofs as well. You will find that it is cheaper to cover them with Amatite than to continue painting and repairing them.

We make a strong point of our "Free Sample" offer because the smallest sample of Amatite speaks for itself. It is more convincing than yards of talk.

There are all kinds of ready roofings on the market—so-called "rubber roofings," so-called "guarantee roofings," so-called "sand surface roofings."

The "rubber" roofings are no more made of rubber than a cow is made of saw-dust. The "guarantees" that are promiscuously handed out with many brands are

hedged around with so many provisos that it will take three lawyers to dissect them and find out what they are all about. The "sand surface" has little or no protective value.

The point to remember is that all of these roofings have to be painted every year or two to keep them tight. In other words, it is the paint that protects, and not the roofing. If a man will sit down and figure out exactly what this paint costs, he will find that it is more than the roofing itself. Amatite, on the other hand, has a surface of real mineral matter and we sell the goods on the broad statement that you need never coat or paint this roofing.

You can lay Amatite on a roof and then forget all about your roofing troubles. No painting, no coating, no worry. The man who puts Amatite on his buildings is insured against leaks and trouble for many years.

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contains a maximum amount of active sulphur, without any useless sediment. With it you can eradicate scale, scab, blight, mildew, aphids, bud moth, and all parasitic sucking insects and fungi.

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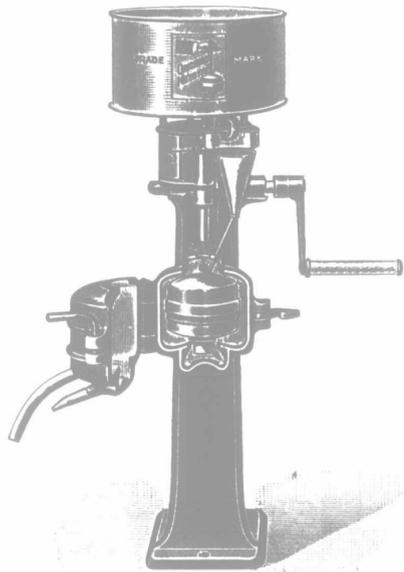
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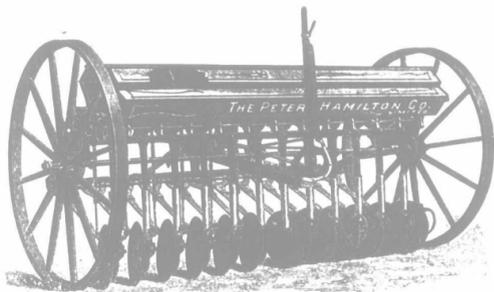


Style A-E. Capacities, 280-720 lbs. per hour. Can be operated entirely by a boy or girl.

south-eastern horizon is banked with a range of white rolled clouds! Softly and silently the snow has fallen during the night, spreading a covering white and pure over all the stains which a workaday world has made, and depositing on every branch and twig a tiny fairy-like burden, soon to be scattered by a playful breeze. Dazzle of sunlight, sparkle of frost, clear, cold, tingling air, the grey of wood and fence against the whiteness of snow, the relieving dark-green of pine, spruce or evergreen—oh, the glamor of the scene!

Come, walk with me, comrade, adown the old familiar path which leads across the little brook to the wood. The world, so silent, so white and pure, must be lifeless or sleeping,—no, I repeat not again that plaintive strain, for, though the rippling waters in which minnows darted all the summer day are silent and icy, I stoop to peer into the glassy surface, and, lo! the grasses sway in a hidden current, and tiny fish still dart in the deep pool! What mean those little footprints in the new fallen snow? Tiny creatures search for food or gambol in sheer joy over the white untrodden surface. No sound breaks the silence of the wood save the tapping of a woodpecker, as, with a view to a morning meal, he closely inspects the trunk of yon hollow tree, or the cheery call of the chickadees. Now a flock of saucy sparrows alight for a moment with much bickering, but with a whisk of wings they are away again to their nests under the eaves. Up the long lane leading from his stable the Thoroughbred colt comes tearing, kicking, jumping, in very abandon of high spirits, or playfully snorts his breath upon the frosty air. He too feels, though unconsciously, something of the enchantment of a lovely morning in Midwinter.

I pause, and with a gentle gliding movement of fingers over the keys, break into a medley of familiar airs, at fancy's capricious dictation. Hear, you comrade, the light-hearted laughter and gay song of a sleighload of merry-makers mingling with the music of sleighbells? Clear and sweet on the cold silence of the night rings out the carol, "As merrily we roll along." But the voices

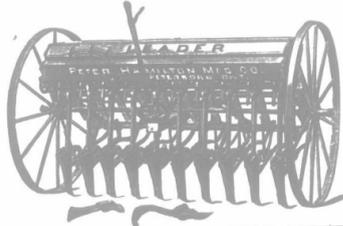


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**A. G. HULL & SONS,**  
ST. CATHARINES, ONTARIO, CANADA.



trail into the silence of distance. Now it is the clink of skates, as down the long stretch of ice, glistening in the moonlight, shadowy forms dart and glide. Now it is the crackle of cedar, when more fuel replenishes the huge bonfire, built in the shelter of a bank, while countless sparks shoot upward. Again, the air tells of the exultant shout of school children as they play at "fort" and snowball, or the joyous laugh of the coasters as they shoot dizzily downward, or breathlessly climb the long ascent.

Yet again, comrade, the music in sweet cadences whispers to you of the charm of a Midwinter night; of the long-drawn note of steel in contact with frost, as, with tightened rein, the spirited horses speed along the frozen road; of the beauty of moonlight and shadow, as darkly across your path the trees throw bold outline and delicate, intricate lacework pattern of branch and twig; of the splendor of the star-studded sky,—and your heart is thrilled anew with the glad joy of living.

List to the last melody low and tender! Its burthen is "Home, Sweet Home." Its keynote is love. It tells at first of a light gleaming from a window, then welcome, warmth and shelter; then the cheery humming song of the kettle, and suggestive clink of china and the buzz of conversation around a hospitable board. And afterward come the closing hours of a long quiet Midwinter evening, hours fragrant in memory of softly-shaded lights, of glowing coals of the fireplace, a favorite seat, a book and a loved face opposite. The vision fades. Tenderly I caress the keys; the music soft and sweet dies away in the last plaintive notes of the finale. Comrade, farewell!

"HONOR BRIGHT."

Halton Co., Ont.

Clothier.—Were you pleased with the overcoat I sold you?  
Customer.—Oh, yes; all my boys have worn it.

"Well, think of that!"

"I do. Every time after a rain the next smaller one has to take it."—Answers.

## The Golden Dog

(Le Chien D'Or.)

A Canadian Historical Romance.

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### CHAPTER LIV.—Continued.

Upon the outbreak of the last French war in America, he returned to New France, a changed and reformed man; an ascetic in his living, and, although a soldier, a monk in the rigor of his penitential observances. His professional skill and daring were conspicuous among the number of gallant officers upon whom Montcalm chiefly relied to assist him in his long and desperate struggle against the ever-increasing forces of the English. From the capture of Chouaguen and the defence of the Fords of Montmorency, to the last brave blow struck upon the plains of St. Foye, Le Gardeur de Repentigny fulfilled every duty of a gallant and desperate soldier. He carried his life in his hand, and valued it as cheaply as he did the lives of his enemies.

He never spoke to Angelique again. Once he met her full in the face, upon the perron of the Cathedral of St. Marie. She started as if touched by fire—trembled, blushed, hesitated, and extended her hand to him in the old familiar way—with that look of witchery in her eyes, and that seductive smile upon her lips, which once sent the hot blood coursing madly in his veins. But Le Gardeur's heart was petrified now. He cared for no woman more—or, if he did, his thought dwelt with silent regret upon that pale nun in the Convent of the Ursulines, once Heloise de Lotbiniere, who he knew was wasting her young life in solitary prayers for pardon for his great offence.

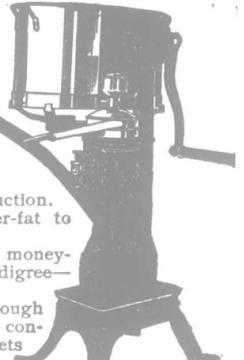
His anger rose fiercely at the sight of Angelique, and Le Gardeur forgot for a moment that he was a gentleman, a man who had once loved this woman. He struck her a blow and passed on. It shattered her last illusion. The proud, guilty woman still loved Le Gardeur, if she loved any man. But she felt she had merited his scorn. She staggered, and sat down on the steps of the Cathedral, weeping the bitterest tears her eyes had ever wept in her life. She never saw Le Gardeur again.

After the conquest of New France, Le Gardeur retired with the shattered remnant of the army of France, back to their native land. His sovereign loaded him with honors which he cared not for. He had none to share them with now! Lover, sister, friends, all were lost and gone! But he went on performing his military duties with an iron rigor and punctuality that made men admire, while they feared him. His life was more mechanical than human. Le Gardeur spared neither himself nor others. He never married, and never again looked with kindly eye upon a woman. His heart was proof against every female blandishment. He ended his life in solitary state and greatness, as Governor of Mahe, in India, many years after he had left his native Canada.

One day, in the year of grace, 1777, another council of war was sitting in the great chamber of the Castle of St. Louis, under a wonderful change of circumstances. An English governor, Sir Guy Carleton, presided over a mixed assemblage of English and Canadian officers. The royal arms and colors of England had replaced the emblems and ensigns of France upon the walls of the council-chamber, and the red uniform of her army was loyally worn by the old, but still indomitable, La Corne. St. Luc, who, with the De Salaberrys, the De Beaujeus, Duchesnays, De Gaspes, and others of the noblest name and lineage in New France, had come forward as loyal subjects of England's Crown to defend Canada

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INTERNATIONAL HARVESTER  
COMPANY OF AMERICA  
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CHICAGO U S A

Kills the Bugs.  
Feeds the Plant.



## BUG DEATH

A STRONG FUNGICIDE

We grow thirty acres of potatoes ourselves, and never had potato blight injure our crops.

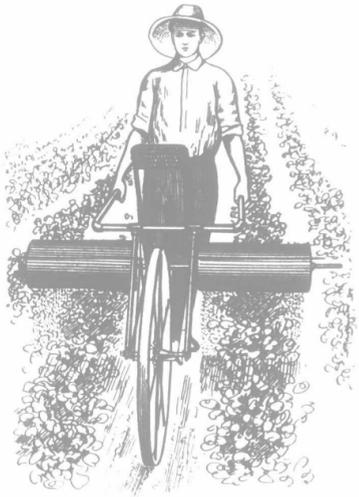
This is our method of treating the potato crop for bugs and blight. Try our way this season and note results.

BUG DEATH is sold in convenient packages, as follows: 1 lb., 15c., 24 pkgs. a case; 3 lbs., 35c., 12 pkgs. a case; 5 lbs., 50c., 6 pkgs. a case; 12½ lbs., \$1.00, 4 pkgs. a case; 50-lb. keg, \$3.75; 100-lb. keg, \$7.00.

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Applies BUG DEATH in dry form, two rows at one time, as fast as a man will walk. If your dealer does not keep BUG DEATH, have your neighbors make up an order with you for a case or keg, and send to us, and we will have it shipped to your nearest station free of freight charges.

BUG DEATH CHEMICAL COMPANY, LIMITED  
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THE KING OF ALL SEEDS

STEELE, BRIGGS'

"LION"

RED CLOVER

SUREST—PUREST—BEST

ALSO

STEELE, BRIGGS' "ERMINE" TIMOTHY

These two brands embody the best values produced in seeds. Ask your merchant for these brands, he'll have them, or send to us direct.

STEELE, BRIGGS SEED CO., LIMITED  
TORONTO HAMILTON WINNIPEG

against the armies of the English Colonies, now in rebellion against the King.

"Read that, La Corne," said Sir Guy Carleton, handing him a newspaper just received from England

"An old friend of yours, if I mistake not, is dead. I met him once in India. A stern, saturnine man he was, but a brave and able commander. I am sorry to hear of his death, but I do not wonder at it. He was

the most melancholy man I ever saw."

La Corne took the paper, and gave a start of intense emotion as he read an obituary notice, as follows:—  
"Fast Indies. Death of the Mar-

quis de Repentigny. The Marquis Le Gardeur de Repentigny, general of the army, and the Governor of Mahe, died last year in that part of India which he had, by his valor and skill, preserved to France. This officer had served in Canada, with the reputation of an able and gallant soldier."

La Corne was deeply agitated; his lips quivered, and tears gathered in the thick gray eyelashes that formed so prominent a feature of his rugged but kindly face. He concluded his reading in silence, and handed the paper to De Beaujeu, with the single remark, "Le Gardeur is dead! Poor fellow! He was more sinned against than sinning! God pardon him for all the evil he meant not to do! Is it not strange that she who was the cursed cause of his ruin still flourishes like the Queen of the Kingdom of Brass? It is hard to justify the ways of Providence, when wickedness like hers prospers, and virtues like those of the brave old Bourgeois find a bloody grave! My poor Amelie, too! poor girl, poor girl!" La Corne St. Luc sat silent a long time, immersed in melancholy reflections.

The Canadian officers read the paragraph, which revived in their minds also sad recollections of the past. They knew that, by her who had been the cursed cause of the ruin of Le Gardeur and of the death of the Bourgeois, La Corne referred to the still blooming widow of the Chevalier de Pean—the leader of fashion and gaiety in the capital now, as she had been thirty years before, when she was the celebrated Angélique des Meloises.

Angélique had played desperately her game of life with the juggling fiend of ambition, and had not wholly lost. Although the murder of Caroline de St. Castin pressed hard upon her conscience, and still harder upon her fears, no man read in her face the minutest asterisk that pointed to the terrible secret buried in her bosom, nor ever discovered it. So long as La Corriveau lived, Angélique never felt safe. But fear was too weak a counsellor for her to permit either her composure or her pleasures. She redoubled her gaiety and her devotions; and that was the extent of her repentance! The dread secret of Beaumanoir was never revealed. It awaited, and awaits still, the judgment of the final day of account.

Angélique had intrigued and sinned in vain. She feared Bigot knew more than he really did, in reference to the death of Caroline, and oft, while laughing in his face, she trembled in her heart, when he played and equivocated with her earnest appeals to marry her. Wearied out at length with waiting for his decisive yes or no, Angélique, mortified by wounded pride, and stung by the scorn of Le Gardeur on his return to the Colony, suddenly accepted the hand of Chevalier de Pean, and as a result became the recognized mistress of the Intendant—imitating as far as she was able the splendor and the guilt of La Pompadour, and making the Palace of Bigot as corrupt, if not as brilliant, as that of Versailles.

Angélique lived thenceforth a life of splendid sin. She clothed herself in purple and fine linen, while the noblest ladies of the land were reduced by the war to rags and beggary. She fared sumptuously, while men and women died of hunger in the streets of Quebec. She bought houses and lands, and filled her coffers with gold out of the public treasury, while the brave soldiers of Montcalm starved for the want of their pay. She gave fetes and banquets while the English were thundering at the gates of the capital. She foresaw the eventual fall of Bigot and the ruin of the country, and resolved that, since she had failed in getting herself, she would make herself possessor of all that he had.

The fate of Bigot was a warning to public speculators and oppressors. He returned to France soon after the surrender of the Colony, with Cadet, Varin, Denisault, and others of the Grand Company, who were now useless tools, and were cast aside by their court friends. The Bastille opened its iron doors to receive the

godless and wicked crew, who had lost the fairest colony of France, the richest jewel in her crown. Bigot and the others were tried by a special commission, were found guilty of the most heinous malversations of office, and sentenced to make full restitution of the plunder of the King's treasures, to be imprisoned until their fines and restitutions were paid, and then banished from the kingdom forever.

It is believed that, by favor of La Pompadour, Bigot's heavy sentence was commuted, and he retained a sufficiency of his ill-gotten wealth to enable him, under a change of name, to live in ease and opulence at Bordeaux, where he died.

Angélique had no sympathy for Bigot in his misfortunes, no regrets save that she had failed to mould him more completely to her own purposes, flattering herself that had she done so, the fortunes of the war and the fate of the Colony might have been different. What might have been, had she not ruined herself and her projects by the murder of Caroline, it were vain to conjecture. But she who had boldly dreamed of ruling king and kingdom by the witchery of her charms and the craft of her subtle intellect, had to content herself with the name of De Pean and the shame of a lawless connection with the Intendant.

She would fain have gone to France to try her fortunes when the Colony was lost, but La Pompadour forbade her presence there, under pain of her severest displeasure. Angélique raved at the inhibition, but was too wise to tempt the wrath of the royal mistress by disobeying her mandate. She had to content herself with railing at La Pompadour with the energy of three furies, but she never ceased, to the end of her life, to boast of the terror which her charms had exercised over the great favorite of the King.

Rolling in wealth, and scarcely faded in beauty, Angélique kept herself in the public eye. She hated retirement, and boldly claimed her right to a foremost place in the society of Quebec. Her great wealth and unrivalled power of intrigue enabled her to keep that place, down to the last.

The fate of La Corriveau, her confederate in her great wickedness, was peculiar and terrible. Secured at once by her own fears, as well as by a rich yearly allowance paid her by Angélique, La Corriveau discreetly bridled her tongue over the death of Caroline, but she could not bridle her own evil passions in her own household.

One summer day, of the year following the conquest of the Colony, the Goodman Dodier was found dead in his house at St. Valier. Fanchon, who knew something and suspected more, spoke out; an investigation into the cause of death of the husband, resulted in the discovery that he had been murdered by pouring melted lead into his ear while he slept. La Corriveau was arrested as the perpetrator of this atrocious deed.

A special court of justice was convened in the great hall of the Convent of the Ursulines, which, in the ruinous state of the city after the siege and bombardment, had been taken for the headquarters of General Murray. Merg Migeon and Mere Esther, who both survived the conquest, had effected a prudent arrangement with the English General, and saved the Convent from all further encroachment by placing it under his special protection.

La Corriveau was tried with all the fairness, if not with all the forms, of English law. She made a subtle and embarrassing defence, but was at last fairly convicted of the cruel murder of her husband. She was sentenced to be hung and gibbeted in an iron cage, upon the hill of Levis, in sight of the whole City of Quebec.

La Corriveau made frantic efforts during her imprisonment to engage Angélique to intercede in her behalf; but Angélique's appeals were fruitless before the stern administrators of English law. Moreover, Angélique, to be true to herself, was false to her wicked confederate. She cared not to intercede too much, or enough

**How Weather Changes Bring Death to Roofing**



**Brantford Roofing**

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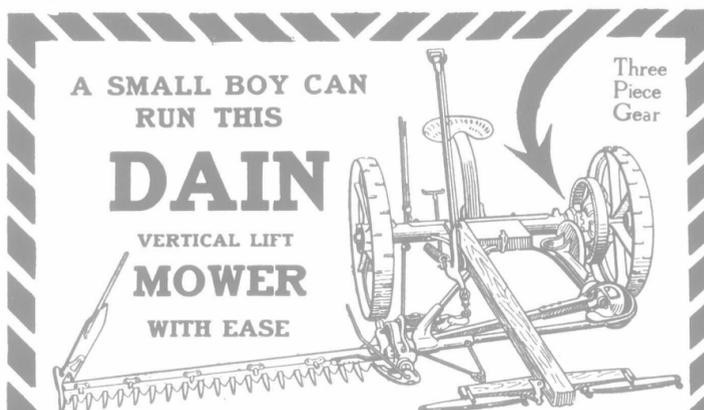
The life of Roofing is Saturation and Coating. Yet this vital part is sorely neglected by nearly every Roofing maker. The Basis of most Roofing, except Brantford, is wood pulp, jute or cotton-cloth—all short fibred. When it passes through "Saturatory Process" it does not become actually saturated—merely coated. This "Coating" is of refuse and quickly evaporates—wears off—exposing foundation to savage weather. It absorbs water and moisture, and becomes brittle, cracks, rots and finally crumbles. Even when new it softens under heat, sagging and dripping. But the Foundation of Brantford Crystal Roofing is a heavy, evenly condensed sheet of long-fibred pure Wool, saturated with Asphalt, which is forced into every fibre—not merely dipped. It is heavily coated with time-defying, fire-resisting Rock Crystals, which require no painting. This special Coating cannot evaporate and protects inside. Brantford is indestructible, pliable, tight, water, weather, spark, acid, alkali, smoke, fire-proof.

cannot absorb moisture, freeze and crack in cold weather, or become sticky and lifeless in hot weather. Brantford Crystal Roofing is not the kind all manufacturers care to make, because it costs extra money, yet it costs you no more than short-life Roofing. Roofing Book and Brantford Samples are free from dealer or us. Brantford Asphalt Roofing, Nos. 1, 2, 3. Brantford Rubber Roofing, Nos. 1, 2, 3. Brantford Crystal Roofing, one grade (heavy) Mohawk Roofing one grade only.

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**B**EST five-dollar Barred Plymouth Rock cockerels in Canada. Holders of two championship cups. You cannot improve your stock with the one and two-dollar kind. Twenty-five dollars on deposit with The Advocate to guarantee satisfaction to all customers. J. O. Pringle, London, Ont.

**B**ARRED Rocks, males and females, from New York and Boston prizewinners. My birds won at leading Canadian shows. Prices right. Eggs for hatching. Thos. Andrew, Pickering, Ont.

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**C**HOLK COCKERELS—Rhode Island Reds. Fine large birds, \$1.50 each. Golden Wyandottes large, rich plumage, grand birds, \$1.50. Rose-comb Minorcas, large, handsome, hardy, \$2.00 each. Sacrifice prices. Why not improve your flocks with these high-class cockerels. Pullets for sale. A. McGugan, R. dney, Ont.

**C**ANADA'S best Anconas—Winter layers. Very profitable. Free circulars. Tells all about Anconas and Leghorns. Edmund Carlyle Apps, Box 224, Vice-President International Ancona Club, Brantford, Ontario.

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**E**DELWEISS WHITE ROCKS—Eggs for hatching, \$2.00 for 15. Breeding pen: "Edelweiss 1" (3rd Ontario cock, 09), with 10 yearling hens, trap-nested, which have as pullets proven themselves "worth while." A grand utility pen. J. A. Butler, M. D., Baden, Ont.

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**J**. H. FRY, Chesley, Ont., has two grand pens of White Wyandottes. Pen No. 1 is headed by a fine cock, mated to seven grand pullets. Eggs, \$2 per 15; \$3.50 per 30. Pen No. 2 is headed by a grand cockerel, weighs 10 lbs. Mated to eight fine hens. Both pens prizewinners. Eggs, \$1.50 per 15; \$2.50 per 30.

**K**ELLERSTRASS—Cook Strain White Orpingtons. Hellyer's strain Buffs. Eggs, \$1 and \$2 setting. Stock for sale. H. Ferns, 715 William Street, London, Canada.

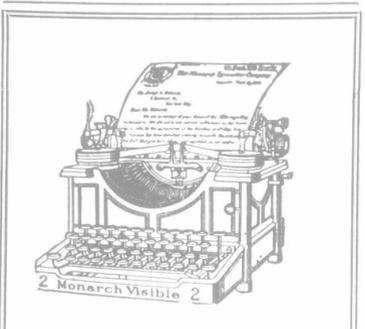
**M**OTTLED Ancona eggs from thoroughbred stock, \$2 for 15; circular free. E. W. Wardle, Box 131, Corinth, Ont.

**R**EADWIN Birds are winners, having won at Toronto, Ottawa, Brantford, Guelph, Hamilton and both big Ontario shows. Eggs \$2 per 15, shipped in light, safe egg-baskets. Single-comb White, Single-comb Black, Rose comb White Leghorns, Black and Columbia Wyandottes; also Buff Orpingtons. A. & T. Readwin, 2360 Paisley St., Guelph, Ont.

**R**OYAL City Poultry Yards—12 years a breeder of White Wyandottes 5 grand pens, all headed by winning males. Eggs for balance of season, \$2.50 per 15. Still a few males and females to dispose of. Also eggs from pen of A No. 1 Buff Orpingtons, \$1.50 per setting. Wm. Wilson, Prop., 219 Grange St., Guelph, Ont. N. B.—My birds have the run of 5 acres, and are full of vigor.

**S**INGLE-COMB Black Minorcas—Stock and eggs for sale. Ontario winners and great layers. Satisfaction guaranteed. For particulars write: H. Dunning, Thorton Ont.

**W**HITE Rock eggs at \$1.50 per setting, R. C. Rhode Island Red eggs at \$2; also some choice cockerels of both breeds for sale. Howard Smith, Winona, Ont.



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to insure success. In her heart she wished La Corriveau well out of the way, that all memory of the tragedy of Beaumanoir might be swept from earth, except what of it remained in her own bosom. She juggled with the appeals of La Corriveau, keeping her in hopes of pardon until the fatal hour came, when it was too late for La Corriveau to harm her by a confession of the murder of Caroline. The hill of Levis, where La Corriveau was gibbeted, was long remembered in the traditions of the Colony. It was regarded with superstitious awe by the habitants. The ghost of La Corriveau long haunted, and, in the belief of many, still haunts, the scene of her execution. Startling tales, raising the hair with terror, were told of her around the firesides in winter, when the snow-drifts covered the fences, and the north wind howled down the chimney and rattled the casement of the cottages of the habitants; how, all night long, in the darkness, she ran after belated travellers, dragging her cage at her heels, and defying all the exorcisms of the Church to lay her evil spirit!

Our tale is now done. There is in it neither poetic nor human justice. But the tablet of the Chien d'Or still overlooks the Rue Buade; the lamp of Repentigny burns in the ancient chapel of the Ursulines; the ruins of Beaumanoir cover the dust of Caroline de St. Castin; and Amelie sleeps her long sleep by the side of Heloise de Lotbiniere.

(The End.)

**TRADE TOPIC.**

**PURE-BRED ANIMALS AND PLANTS.**

"There is as much difference between pure-bred and ordinary plants, as between pure-bred and ordinary animals." This statement is made by D. M. Ferry & Co., of Detroit, the greatest flower and vegetable breeders in the country, and appears in their 1910 annual catalogue just issued. They argue for the great value and economy of pure-bred seeds. "Any fundamental natural law which applies to animals, applies equally to plants." A good cow eats no more than a poor one, but may give twice as much butter-fat. "Good blood" makes as much difference with corn as with cows. But pure-bred plants, like pure-bred animals, are not produced in one or two generations, for no matter how superior an individual of common origin may be, its progeny are, as a rule, like the general run of its antecedents. Hence the need for seedsmen like D. M. Ferry & Co. They have experience, probably the best plant-breeding equipment in the United States, and the business acumen to sell only such seeds as have been bred from the choicest stocks for many generations. D. M. Ferry & Co.'s Seed Annual for 1910 may be had free of charge by writing to them at Windsor, Ontario. It contains much of interest for those who think.

**GOSSIP.**

In the Gossip notes respecting the Shorthorn herd of Duncan Brown & Sons, Iona Station, Ont., on page 376, in our March 3rd issue, Essex County should read Elgin County.

**ED. ROBINSON'S SHORTHORN SALE.**

The auction sale on March 11th of 30 Shorthorn cattle, the property of Ed. W. Robinson, Markham, Ont., was well attended, but the bidding was slow, partly owing to most of the females being quite young, and a few of them past the prime of life. All were brought out in nice condition, and the quality of the offering was creditable. Some good bargains were certainly picked up. Twenty-two females sold for a total of \$1,990, an average of \$90.25; the highest price being \$170 for the roan two-year-old heifer, Broadhooks Rose 4th, purchased by John Isaac, Markham. John Miller, Bringham, secured the seven-year-old cow, Broadhooks Rose, for \$165, and Thos. Hagerman, Stouffville, the three-year-old, Broadhooks Rose 3rd, for the same price. Eight bulls sold for \$1,095.00, an average of \$136.87; the highest price being paid for the red yearling, Masterpiece (imp.), purchased by James Russell, Richmond Hill. The four-year-old stock bull, Royal Fancy (imp.), went to J. W. Norris, Markham, at \$225.

**Southdown Sheep**

Unequaled for quality of mutton and wool, hardy constitution and early maturity. STRIDE & SON will sell by auction at CHICHESTER, SUSSEX, ENGLAND, on August 17th and 18th, Next. 7,000 SOUTHDOWN EWES, 600 SOUTHDOWN RAMS AND RAM LAMBS. Commissions carefully executed. STRIDE & SON, CHICHESTER, SUSSEX, ENGLAND.

**SHOEMAKER'S BOOK on POULTRY**

and Almanac for 1910 has 224 pages with many colored plates of fowls true to life. It tells all about chickens, their prices, their care, diseases and remedies. All about incubators, their prices and their operation. All about poultry houses and how to build them. It's an encyclopedia of chickendom. You need it. Only 15c. C. C. SHOEMAKER, Box 874, Freeport, Ill.

**WANTED**

A few private farmers to ship me Poultry, Eggs, Syrup and all other farm produce. Will pay highest market price.

W. J. FALLE.

Prince Albert Ave. Westmount, Montreal.

**Imp. Clydesdale Stallion for Sale**, rising six years old; good stock-getter, weighs about 1,600 lbs. Will be sold reasonable and on easy terms. Address: BOX 25, WEST MONKTON, ONT.

**GOSSIP.**



Acklam Ivy =63615=

Rear view, showing udder. Shorthorn cow in sale of A. W. Smith, Maple Lodge, Ont., March 24th. Sire, Knuckle Duster (imp.).

At the London Hackney Show, March 1-4, the supreme champion stallion was F. W. Buttle's 8-year-old, Kirkton Torador, first in the senior stallion class over 15.2 hands, sire Rosador.

The catalogue of the 40 head of Holsteins, the property of J. A. Caskey, Madoc, Ont., to be sold at his farm, on March 25th, makes an excellent showing for the breeding and milk records of animals listed, and of their ancestors. In this sale is the great young bull, Sara Jewel Hengerveld's Son, whose dam has a record of 28.12 lbs. butter in seven days, and her daughter a record of 30.39 lbs. in seven days. There are in the sale 23 cows and heifers that have calved, or are due to calve soon. Mr. Caskey claims that in this offering is the best lot of young dairy cows ever offered at public auction in Ontario. "The heifers that have come in milk, sired by Cornucopia Alban De Kol, are marvelous producers. From a two-year-old heifer, with first calf, we are getting over 53 lbs. milk per day, on two milkings, and that without hay. Another heifer, same age, is producing over 40 lbs. milk per day, testing 4 per cent. butter-fat. Two other heifers, same age, promise to do even better when they freshen. In the herd are some very fine show animals. A heifer, calved August 12th, 1909, No. 21 in catalogue, is a perfect model as a show heifer. The same can be said of Nos. 14 and 18 in catalogue. Among the cows, No. 10 and No. 11 are very fine individuals, and very hard to beat as show cows. Easter-holiday railway rates will be available.

## CANADIAN GROWN Strawberry Plants

BUY YOUR PLANTS from a successful Ontario grower—one who is producing from ten to fifteen thousand boxes of berries an acre. I grow only those varieties that have proved to be the best for productiveness, flavor and keeping. I consider the following varieties among the best to grow:

Sample (female).—Late, productive, large, attractive. Canning factories value this berry very highly.

Enhance (male).—Late, the best pollinizer for the Sample. Productive, dark red, one of the best canners, will remain on the vines ripe, in good condition, longer than any other berry that I grow.

Senator Dunlap (male).—Medium season, productive, large, very attractive, and every strawberry grower should have quite a large proportion of his crop of this most desirable variety. Good plant maker.

Splendid (male).—Medium season, productive on all kinds of soil, and holds up its size to the last picking. Good plant maker. Rightly named Splendid.

Williams (male).—Late, productive, most generally planted of any berry grown in Ontario; canners' favorite, but should be left on the vines until well ripened, otherwise will have a green tip.

Aroma (male).—Late, productive, best long-distance shipper I grow.

3 W's (male).—Have not thoroughly tested.

In buying your plants from Ontario growers you save your duties and heavy express charges. I can assure you that you will get better plants than I ever got from the so-called pedigreed or thoroughbred plant growers, and I have heard many others of our Canadian growers express themselves likewise.

My price for any of the above varieties is **\$4.00 a Thousand**, C. O. D. If the plants are not as represented your money will be refunded. You can depend upon getting the varieties asked for, as I DO NOT SUBSTITUTE.

**Jas. E. Johnson, Fruit Grower, Simcoe, Ont.**

## Important Credit Auction Sale!

WEDNESDAY, MARCH 23, 1910

## 20 Registered Clydesdale

### Mares and Fillies and One Stallion

Two to four years old. Four sired by Baron's Pride, one Baronson, two Baden-Powell, two King's Champion, two Look Out, Gold Stripe, King's Ransome, Royal Chattan, and Sir Everest. Terms cash, or 6 months' credit on approved joint notes bearing interest. Lunch at noon. Send for catalogue.

**A. L. Kent,  $\frac{1}{2}$  Mile N.-W. of Oakville Stn.**  
GEO. ANDREW, Auctioneer. G. T. R.

## GOING TO BUILD? We'll Loan You the Money.

If you contemplate building or buying a home, improving your farm, or purchasing more land, we will be pleased to give you complete information about our convenient Loan Department. Call or write:

Temporary address: 434 Richmond St., London, Ont., Can.

**THE ONTARIO LOAN AND DEBENTURE CO.**  
A. M. Smart, Manager  
Dundas St. ~ Market Lane.

## SEED POTATOES

A Change of Seed is Always Advantageous.

I am offering 5,000 bushels pure-bred seed potatoes grown from imported English, Scotch and American seed. Extra First Early, First Early, Second Early, Main Crop, Late Main Crop. For prices, etc., address:

**W. P. NILES, WELLINGTON, ONTARIO**  
Grower of Seed Peas, Beans, Potatoes, Oats and Barley.

### GOSSIP.

#### BRAMPTON JERSEYS.

T. S. Cooper & Sons, of Coopersburg, Pa., write B. H. Bull, Brampton, Ont.: "Thank you for the photograph you sent me. Mon Plaisir's Fanny is certainly a great cow, and she is bred by a man who has a wonderful herd." B. H. Bull & Son keep such cows as this in their breeding herd, cows of ideal type, with capacity for work, and that do the work at both the pail and churn, and from such cows they have bulls for sale.

Their list of sires was never better than at present. Blue Blood, the greatest proven Jersey sire in Canada today; Brampton Jolly Oakland's, imported last year, as the best bull to be had on the Island of Jersey; Brampton Eminent's Raleigh, a bull bred specially to produce butter cows, and his calves are as showy as any.

Brampton Stockwell, the calf of Mon Plaisir's Fanny, by the great Stockwell, who sold for \$11,500, on his merits as a sire.

For sale are sons of some of the above bulls, also sons of Arthur's Golden Fox, and imported Fereor. Their dairy returns per cow were never before so large or satisfactory. They have a great lot of heavy-working cows.

#### THE OAKVILLE CLYDESDALE SALE.

In the auction sale of imported and Canadian-bred Clydesdales, property of A. L. Kent, of Oakville, Ont., to take place on March 23rd, are a number of splendidly-bred young mares and stallions, of fine type and quality, which should attract purchasers from near and far. See the advertisement on another page. Note the date, March 23rd. The Scottish Farmer, commenting of Mr. Kent's importation, says: "A couple of fillies were purchased from Alex. Picken, Alton Kilmours. They are both by the nicely-bred stallion Look Out (12213), a son of Royal Carrick, tracing back to Sir Everard on his dam's side. Their dams are by Darnley's Voucher, which produced the King's 500-guinea mare, and Gareloch. David Riddell, Blackhall, Paisley, contributed four fillies to the lot. Lady's Fashion, by King's Champion, out of a Gallant Prince mare; Lady's Flower, by the same sire, out of a mare by Flowing Tide; Lightsome Lady, by King's Ransom, out of the celebrated Lightsome Lass, by Lightsome Lad; and Pearl Star, by Gold Stripe, out of Miss Ornament, by Ornament. These horses were all bred on Blackhall, and are of a substantial, thick, solid class, and are suitable for the Canadian market. From Messrs. Montgomery, Kirkcudbright, he had one colt, rising three years old, and six fillies. The colt, Everest Again (14671), is a black son of the highly successful breeding stallion, Sir Everest (10917), a son of Sir Everard, and out of a mare by the high-priced horse, Merry Lad. He was bred by T. Stephenson, Old Hayton, Bootle, and we trust he may do as well in Canada as several other gets of the same sire. The six fillies are Miss Chattan, by Royal Chattan, dam by Good Gift; Lady Fair, by Baron's Pride, dam by Prince Charming; Lady Milly, by Baden-Powell, dam by Rothesay Bay; Lady Loo, her full sister, a year younger; Bright Spangle, by Baron's Pride, dam by Sir Everard; and Baroness Labori, by Baronson, out of a Labori mare. Polmaise Baroness, by Baron's Pride, dam by Prince Charming; also a filly from above, and a number of Canadian-bred and light horses. As their breeding indicates, they are of superior class, and likely to make most successful breeding mares. Some of them are also likely to prove noted prizewinners. Altogether, Mr. Kent has selected as nice a lot of fillies as any exporter could wish for, and his stallion is bred on lines to suit them."

REDUCED ONE-WAY RATES TO CALIFORNIA, MEXICO, BRITISH COLUMBIA, OREGON, WASHINGTON, ETC.

in effect via Grand Trunk Railway System, daily, until April 15th. Secure tickets and further information from Grand Trunk agents, or address J. D. McDonald, D. P. A., G. T. Ry., Toronto, Ont.

## GET THE WASHER RUN BY GRAVITY!

We have harnessed the Power of Gravity to the 1900 Washer. It is the Greatest Combination known for quick, clean, easy washing.

The Washer almost runs itself! In just six minutes it washes a tubful of clothes spotlessly clean. Over half a million housewives have tested this and proved it. So can you, without spending one cent! Here is the offer!

**WASHERS SHIPPED FREE FOR 30 DAYS' TEST**

We make this offer to any reliable man or woman anywhere. We send the Washer by freight, at our expense and risk. That's because we absolutely know you will be as delighted with the Washer as the thousands who have tried it. Get one of these wonderful Washers and say "good-bye" to the washboard forever. Good-bye to backaches, worry and washday drudgery! Let Gravity Power do the hard work! Let the Washer cleanse the clothes! We sell the Washer on little payments—only 50 cents a week. It pays for itself in a hurry. Then works for you—free for a lifetime! Drop us a postal card for the Free Washer Book and tell us your nearest freight station. Send to-day. Address me personally for this offer.

F. A. H. BACH, Manager  
The "1900" Washer Co., 357 Yonge St.  
TORONTO, CANADA

The above offer is not good in Toronto or Montreal and suburbs. Special arrangements are made for these districts.

## GRAND TRUNK RAILWAY SYSTEM

### HOMESEEKERS' EXCURSIONS TO WESTERN CANADA (VIA CHICAGO)

Including certain points on Grand Trunk Pacific Railway. April 5, 19; May 3, 17, 31; June 14, 28; July 12, 26; August 9, 23; September 6, 20.

WINNIPEG - \$32.00 and return  
EDMONTON - \$42.50 and return

Tickets good for 60 days. Proportionate rates to principal points in Manitoba, Saskatchewan and Alberta.

For pamphlets giving list and particulars of "Free Homesteads," "Lands for purchase along the Grand Trunk Pacific Railway," apply to E. DE LA HOOKE, City Pass, and Ticket Agent, E. RUSE, Depot Agent, London, Ont., or address J. D. McDONALD, D. P. A., G. T. Ry., Toronto.

## CONCRETE SILOS AND WATER TANKS.

New system of construction. Light hollow blocks of a special type core are laid up and poured full of concrete.

We are using the system for the coming season because it has the following advantages:

1. Solid, durable Monolithic wall.
2. Perfect bond between blocks.
3. Perfect bond between concrete and reinforcement.
4. Speedy construction in all kinds of weather.
5. No danger of collapse when concrete sets slowly.
6. No heavy or expensive moulds required.
7. Easy to build absolutely plumb.
8. Easy to make air-tight or water-proof.
9. Has the neat finished appearance of the block silo.
10. Cost is practically the same as of building by other systems.

Prospective builders or contractors should see this system at the cement show, London, March 29th to April 1st, or write for descriptive pamphlet to

L. S. ODELL, Engr. Contr.,  
111 Wellington St., London, Ont.

## ELECTRIC BEANS

ARE A BRACING BLOOD & NERVE TONIC.

They are unequalled for Biliousness, Sick Headache, Constipation, Heart Palpitation, Indigestion, Anemia. Write for sample and booklet of testimonials. 50c. a box at all dealers, or THE ELECTRIC BEAN CHEMICAL CO. LIMITED, Ottawa

# EWING'S

## —the "Pure-Bred" Seeds

There are "pure-breds" and "scrubs" in seeds as well as in stock. When you breed "pure-bred" stock you raise fine, profitable animals—when you breed "scrubs" you get scrubs, and nothing more.

Scrub seeds are generally cheap to buy, but always most expensive to plant, for "scrubby" crops don't pay for land and work, let alone fertilizer and seeds.

Ewing's Seeds are pure-bred. They are grown from selected plants, the strongest, healthiest, most perfect of their kind. Naturally they reproduce splendid crops of the same uniformly high quality.

Ewing's Seeds instead of the doubtful kind will often mean double the crop. If your dealer doesn't keep Ewing's, buy from us direct.

Write for our big Illustrated Catalogue. It's useful, interesting and free.

Wm. Ewing & Co., Seedsmen, McGill St., Montreal.

# SEEDS



### SPRAYS AN ACRE IN 20 MINUTES.

The H.P. Spramotor will spray an acre of potatoes in only 20 minutes. No other method known can do that work in even twice the time.

The picture above shows the H.P. Spramotor spraying potatoes. There are three nozzles to a row, and four rows. Two spray from the sides, and one from the top. They are adjustable to height and width up to 40-inch rows. The nozzles will not clog, or get out of order. Have a 12-gallon air tank, with 100 pounds pressure guaranteed with 12 nozzles open. Automatic and hand controlled. The Spramotor has agitator.

clean-out pressure relief into tank, and nozzle protector all under control of the driver from seat. The Spramotor is made for one or two horses. Fitted for Orchard, Vineyard and Grain Crops. Can be operated by hand. The Spramotor saves enough money in time and labor to pay for itself in one year on 20 acres of potatoes. Don't be content with moderate results when you can increase per crop three or four times. Send for free Treatise on Crop Diseases. Agents wanted.

SPRAMOTOR, LIMITED

1363 King St.

London, Ont.

## 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.

\$15.00 AND UPWARDS.

## The DOMO Separator



Excels any other separator in the world. Our liberal offer enables you to prove this. Our prices for all capacities, SIX SIZES, is astonishingly low. The quality is HIGH. Our machines are well built, up-to-date, handsomely finished. Sifts Closer, Turns Easier, are Durable and Guaranteed. Thousands in use. We send them to you on trial, FREIGHT PREPAID, and if YOU are not satisfied, return it at our expense. We take ALL the risk. Can we offer anything more fair? Write to-day for our circular "A," which gives Our Special Trial Offer, Testimonials, Remarkably Low Prices, and Easy Terms of Payment. It's Free.

DOMO SEPARATOR COMPANY, Brighton, Ontario.

## PRAIRIE LAND

with some timber. Best location in Canada for grain and cattle. Good climate. A PROVEN COUNTRY, with railroads, civilization and good markets. This is the place to make money. Come and see for yourself the fine weather, tall grass, big crops. Easy terms. Cheap rentitions. Our map and folder explain Canadian conditions with absolute truthfulness. Write SCAND. CANADIAN LAND CO., 172 Washington St., CHICAGO.

### QUESTIONS AND ANSWERS. Miscellaneous.

#### LANDLORD AND TENANT.

I rent a house to B in a country village. No agreement, except a verbal one, viz., to pay \$3.25 rent per month and the taxes. The village has no scavenger system. Who pays for the cleaning out of the pit under the closet, the owner or the tenant?

Ontario.

Ans.—The tenant ought to.

#### POSITIONS IN BANK.

1. To what official of a bank should a person apply for a position in one of the Canadian banks?

2. Would he have to make the application in person, or by writing?

2. About what are the salaries of the different positions, such as teller, ledger-keeper, etc.

SUBSCRIBER.

Ans.—1. If there is a branch of the bank in your nearest town, apply to the local manager, otherwise to the general manager at his head office.

2. Not necessarily in person.

3. Salaries vary greatly, according to the bank, and more particularly the importance of the branch in which one is employed. For instance, one bank pays its juniors a minimum of \$200 a year in small country places, \$250 in a town, and \$300 in a city. Speaking generally, one might say the salaries run from \$100 to \$300 for juniors, and from \$500 to \$2,000 for accountants. The accountant's position is next to that of the branch manager.

#### BLANK FORMS FOR MILK RECORDS—SPASHING WATER FROM TROUGH.

1. Does the Government, or Dairymen's Association, furnish supplies, such as scales and forms for keeping dairy records? If so, how can I procure them? If not, where can I get them, and at what cost?

2. What will prevent cows from licking water out of the trough and splashing it on the floor in the feedway, keeping it wet?

B. Y. G.

Ans.—1. Blank forms for keeping individual daily milk-and-feed records may be obtained on application to J. H. Grisdale, Agriculturist Central Experimental Farm, Ottawa. Scales may be purchased locally.

2. This is a habit cattle are liable to get into when they have water constantly before them in a trough. Having the trough covered with a lid, which the cattle can lift with their noses, will sometimes lessen the temptation. In other instances, it is necessary to provide a lid which the attendant must raise at intervals, keeping it closed between times.

#### SHIVERS—SOWING ALFALFA—COST OF FILLING RECIPE.

1. Please give a short sketch of what the disease called shivers is?

2. In sowing alfalfa, which would you advise, to shut the drill up, say one-third less than we generally sow, or shut up every other spout?

3. What should the following recipe cost: 3 ounces pulverized gum opium, 1 ounce digitalis, 4 drams arsenious acid, 4 ounces powdered liquorice-root?

The druggist has asked me \$6 for putting up the foregoing recipe.

ESSEX.

Ans.—1. We do not find shivers in the list of diseases in any of the several books on Veterinary Science in our library. So far as our knowledge goes, it is not a disease, but a symptom in certain affections. One writer in the Scottish Farmer describes shivers as identical with stringhalt, a nervous disease which is practically incurable.

2. If the drill works freely, and sows evenly a small quantity per acre, we should prefer to sow grain from all the tubes, putting on only about half the usual quantity of seed; otherwise stop every other tube.

3. A local city druggist thought this prescription should be filled for about \$2.25, though explaining that it might vary by half a dollar or so, as the price of opium fluctuates. He added that you might have difficulty in having it filled without the authority of a doctor's order.

Have Produced the Finest Crops for the past thirty years.

If you grow crops of any kind or description, a request by mail will bring you our handsomely illustrated catalogue.

Write at once. Do it right now. May mean dollars in harvest.

Kenneth McDonald & Sons  
OTTAWA, ONT.  
Dept. C

Pen's System of Fresh Milk

McLachlan's System of Fresh Milk

#### SHOULD BE IN THE HANDS OF EVERY TEACHER, BOY AND GIRL.

\$1,000 LEGACY WOULD NOT BE WORTH AS MUCH TO YOUR BOY AS A COPY OF THIS BOOK IF PROPERLY USED.

It is in 72-page book form, sells for 50c., and is WORTH MANY TIMES ITS WEIGHT IN GOLD.

WE OFFER \$315 to find the best penman among the teachers in the public schools of British North America, giving ten months to get ready. ANY TEACHER MAY WIN THE \$315.

There are eight prizes in all for teachers, ranging from \$15 to \$315. They total \$585. Send for particulars of the prizes and conditions of the contest.

WE OFFER \$325 TO FIND THE BEST GIRL OR BOY PENMAN among the public-school pupils of British North America, giving sixteen months to get ready. There are eleven prizes in all, ranging from \$10 to \$325. They total \$745. Particulars of these contests sent free.

Send 50c. for copy of the Pen Book and be a competitor. Addressing:

D. McLACHLAN & CO.,  
Dept. F., Canada Business College,  
CHATHAM, ONT.

WE CAN TRAIN YOU AT YOUR HOME IN BOOKKEEPING, SHORTHAND and PENMANSHIP.

Catalogue F. gives particulars of home courses. If you purpose attending a business school, write for our catalogue E., addressing as above.

For Spraying Fruit Trees, Shrubs, Bushes and Plants, there's nothing to equal

EUREKA COMPRESSED AIR, FOUNTAIN SPRAYER

Requires but one pumping to empty entire contents of tank. Automatic-lever valve stops flow of liquid while going from one plant to another. Easy, light, compact; tested to stand 5 times the pressure required to expel liquid. Two nozzles, with hose attachment for spraying small trees. Write for catalogue. THE EUREKA PLANTER CO. Limited, - Woodstock, Ont.

#### FOR SALE!

Imported Percheron Stallion,

Mephisto, Registered No. 34011.

Color, black. Weight, 1,950 lbs.

Registered in the American Percheron Horse Breeders' Association Studbook. Foaled May 19, 1901. For pedigree and particulars address:

S. B. Lawason, Sec'y-Treas., St. George Percheron Horse Co., St. George, Ont.

For Sale - 7 Holstein bulls: Tamworth

Wyandotte cockerels and Buff Orpington hens.

BERTRAM HOSKIN, The Gully P.O., Ont. Phone connection via Cobourg.

### You can Know how a Wire Fence Will Wear Before You Buy It

There is no reason why you should take anybody's "say-so" about a wire fence.

You can test it before you buy it. We have a simple formula for testing wire which we will be glad to send you along with samples of our fence wire. You can compare it with any fence that is made.

Our Peerless Fence made from all No. 9 wire, is equal to all emergencies. It has more than double the strength required. On account of the superior galvanizing on this wire, it should last more than twice as long as ordinary galvanized wire. It stands even a salt, foggy climate for many years where ordinary galvanized wire rusts in as many months.

The Peerless Lock at each intersection of the crossbars is the most perfect device for the purpose yet produced.

This can't-slip lock grips the two wires firmly, yet permits the fence to adjust itself to any surface.

The Peerless Fence never sags, nor is it affected by changes of temperature. Its spring coil formation allows for all contraction and expansion, the wires always remaining perfectly taut.

Don't buy a fence till you know it will last and give satisfaction.

Write to-day for our formula and test samples of all makes of fence. Compare them with Peerless—we're not afraid.

THE DANWELL-HOXIE WIRE FENCE CO., Ltd. Makers of Farm, Lawn and Poultry Fences and Gates. Dept. B. Hamilton, Ont. Winnipeg, Man.

### Peerless The Fence that saves expense



### QUESTIONS AND ANSWERS. Miscellaneous.

#### GETTING WELL WATER TESTED

Is there not a place where we can get soils and water tested by Government officials at Ottawa or Guelph?

A. M. M.

Ans.—Yes. Write Frank T. Shutt, Chemist, Experimental Farms, Ottawa, asking for directions as to the taking and forwarding of a sample of water for free test.

#### PART OF RESIDUARY ESTATE.

My father bequeathed to me all the money in the bank. My sister was bequeathed the residue of the estate, everything not mentioned in the will. There are notes amounting to twenty-seven hundred dollars in the bank, and not mentioned in the will. Who is the lawful claimant of these notes?

Ontario. INQUIRER.

Ans.—We should say the Executor, for the benefit of your sister.

#### BORDEAUX MIXTURE AND PARIS GREEN.

1. Of what is the "Bordeaux mixture" composed?
2. The proportions used in spraying potatoes?
3. Your opinion as to its value, compared with Paris green, in killing potato beetles.
4. Would it be safe to use this same proportion on cabbages? F. L. W.

Ans.—1. Lime and bluestone (copper sulphate). For potatoes, these two substances are usually combined in the proportions of 5 lbs. lime and 5 or 6 lbs. bluestone to the 40-gallon barrel of water.

2. Bordeaux mixture is not an insecticide, and should not be used instead of Paris green, but the latter may be combined with it. This gives you a mixture which will poison bugs and destroy the spores of the fungi that cause blight and certain forms of rot. Paris green adheres better to the leaves, and is less liable to injure foliage when combined with Bordeaux than when used alone.

4. Bordeaux is not a spray for cabbages.

Note.—Full particulars as to making and application of spray mixtures will be published in due season.

#### WESTERN SEED OATS—CORN IN HILLS OR DRILLS?

1. How would Western oats do sown here as a mixed crop with our barley? They are counted by some of our feeders to be as good as our barley, and should make very heavy chop.
2. What weed seeds would we be likely to find among them, and what would they be like if there were any?
3. Which will give the better results, corn planted in hills and worked both ways, or drilled in, which could only be cultivated one way, ears and fodder both considered?
4. How much corn per acre should be drilled in to get the best results? H. R.

Ans.—1. Prof. C. A. Zavitz, of Guelph, strongly advises against sowing Western oats in the East. As a general rule, Western-grown seed oats have not done better than, and in some cases not so well as Ontario-grown seed, when compared on the plots at Guelph. The fact that the kernels of the Western oats are plump, does not by any means guarantee that your crop would be of better grade than if you were to sow Eastern seed of the same variety. By the way, the Western oats are liable to be of mixed kinds.

2. The Western oats are liable to contain many bad weed seeds, such as wild oats, Russian thistle, tumbling and ball mustard, and many others. Prof. Zavitz tells us that, out of a three-ounce grade sample of Western oats, from the office of Inspector Horn, in Winnipeg, he counted 147 wild oats.

3. In co-operative experiments throughout Ontario, using the same amount of seed in each case, an average of a ton more total crop per acre was obtained from hills than from drills. Of this extra ton, two-fifths was ears.

4. This depends somewhat on the variety. In the experiments referred to, the amount of seed was four kernels to a hill, in hills forty inches apart. As a general thing, about ten pounds of good seed per acre should suffice.

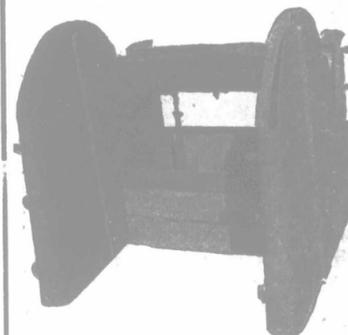
The wide tires on Dominion Low Steel Wheels save roads, and make hauling easy. Won't rot like wooden wheel, are stronger, and guaranteed not to break in roughest roads or coldest weather. Can be taken apart and repaired. No boxes in hubs to become loose or break. Lighter, stronger and cheaper than wooden wheels. Make work twice easier.



The Dominion Low Handy Wagon saves labor and time, and makes loading and unloading easy. Does away with high lifting, enabling one man to do work of two. Easily changed into platform wagon. Parts arranged for easiest draft. Wide-tire low wheels make pulling easy. Guaranteed. Send for free catalogue on Handy Wagon and Dominion Steel Wheels. Dominion Wrought Iron Wheel Co. Ltd. Brantford, Ont.



### STABLE MOULDS



The new Ideal Manger, Partition and Water System have solved the problem. Patented Oct. 26, 1909, and sold by A. D. Schmidt, North Woolwich, Ont. An illustration of moulds will be mailed on application. Apply to A. D. SCHMIDT, North Woolwich, Ont.

## HOMES

For Settlers in MANITOBA SASKATCHEWAN ALBERTA

How Made and How Reached LOW SETTLERS' RATES

Settlers with Live Stock and Horses  
Special Trains  
leave Toronto  
10.10 p.m. Tuesdays  
during  
MARCH and APRIL

Settlers and Families without Live Stock should use  
Regular Trains  
10.10 p.m. daily  
WINNIPEG FLYER  
36 hours to Winnipeg  
Through Tourist Cars

COLONIST CARS ON ALL TRAINS in which Berths are Free

Apply to nearest Agent for copy of "Settlers' Guide," "Western Canada," "Tourist Cars," or write R. L. Thompson, D.P.A., C.P.R., Toronto.

### TRENCH'S REMEDY -FOR- EPILEPSY AND FITS

IMPORTANT NOTICE

A BRANCH OFFICE has been established at 107 St. James' Chambers, Toronto. REDUCTION IN PRICE. This important change permits of prices being reduced to those prevailing in Europe, namely:—Full package, \$12.00; half do., \$6.50; quarter do. \$3.75; postage or express charges extra.

THE ONLY CANADIAN AND U.S. ADDRESS TRENCH'S REMEDIES, LIMITED 107 ST. JAMES' CHAMBERS, TORONTO Pamphlet mailed free on application. Beware of spurious imitations. All packages of Trench's Remedy must bear our trademark seal in unbroken condition on each end.

## Planet Jr.

Handsome Book free

Every farmer and gardener ought to have the Planet Jr 1910 catalogue. It shows photographs of Planet Jr implements in actual use, and tells how each of 55 different tools does the work of 3 to 6 men. Planet Jrs are strong, efficient, money-making implements. Fully guaranteed.

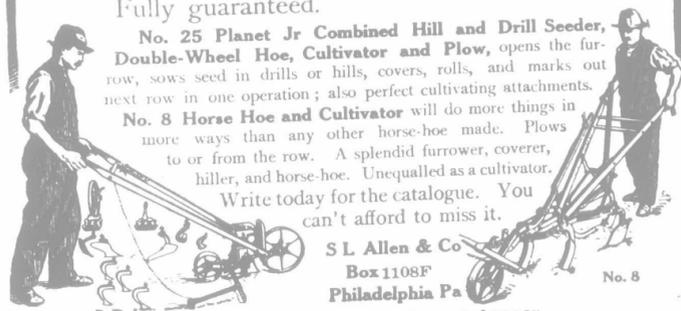
No. 25 Planet Jr Combined Hill and Drill Seeder, Double-Wheel Hoe, Cultivator and Plow, opens the furrow, sows seed in drills or hills, covers, rolls, and marks out next row in one operation; also perfect cultivating attachments.

No. 8 Horse Hoe and Cultivator will do more things in more ways than any other horse-hoe made. Plows to or from the row. A splendid furrower, coverer, hiller, and horse-hoe. Unequaled as a cultivator.

Write today for the catalogue. You can't afford to miss it.

S. L. Allen & Co. Box 1108F Philadelphia Pa. No. 8

Write for the Name of Our Nearest Agency.



Now is the time to plan for the coming season's work, and in order that your plans may be well founded, you must have

## Simmers' Seed Catalogue for 1910

It contains a fully illustrated and descriptive list of up-to-date varieties of Field Seeds, Garden and Flower Seeds, Plants, Bulbs, Garden Tools, Etc. Also a great deal of valuable information that will assist you in making up your requirements in these lines.

We give you the benefit of our long experience in the seed business, extending over more than half a century, and you can rely on getting just what you order, and everything of the very best quality obtainable.

Write for our 1910 Catalogue to-day.

J. A. SIMMERS, TORONTO, ONT. Seeds, Bulbs, Plants.



## Wear Ruthstein's STEEL SHOES

Our 1910 Model

Absolute Protection Against  
Colds, Rheumatism, Stiffness, Discomfort  
No More Blistered, Aching Feet  
**GOOD-BYE to CORNS and BUNIONS!**

Patented  
Dec. 4,  
1906  
Other  
patents

FREE

Write for book, "The Sole of Steel," or order a pair of Steel Shoes on blank.

in mud or slush up to your shoe tops. Steel Shoes are shaped to fit the foot, and the rigid steel bottoms and sides force them to keep their shape. No warping, no twisting, no leaking possible. And they are as light as any ordinary work shoes.

### How Our 1910 Model Steel Shoes Are Made. The Wonderful Steel Bottoms

Steel Shoes solve the problem of the Perfect Work Shoe for all time to come.

The soles of Steel Shoes and an inch above the soles are stamped out of a special light, thin, rust-resisting steel. One piece of seamless steel from toe to heel. As a further protection from wear, and a means of giving a firm foothold, the bottoms are studded with adjustable steel rivets.

The adjustable steel rivets of the 1910 model Steel Shoes add the finishing touch of perfection. Practically all the wear comes on these steel rivets. When steel rivets wear down you can instantly replace them with new rivets. And the rivets at the tip of toe and ball of foot are the only ones that wear. Steel Shoes never go to the Repair Shop, for there's nothing to wear but the rivets. And the Steel Soles shed mud almost as easily as they shed water. The cost is only 30 cents for 50 extra steel rivets. No other repairs are ever needed.

The uppers are made of the very best quality of pliable waterproof leather, and firmly riveted to soles. There is greater strength and longer service and more foot comfort in Steel Shoes than in any other working shoes in existence. It's in the steel and the pliable leather, and the way they are put together.

### Throw Away Rubber Boots, Felt Boots and "Arctics!"

Rubber or felt boots heat the feet and make them sweaty and tender. Nothing more uncomfortable or more harmful to the feet. One pair of Steel Shoes will outlast at least three pairs of felt or rubber boots.

A man who wears Steel Shoes doesn't have to own three different styles of working shoes. No arctics or felt boots necessary.

### Secret of Steel Shoe Elasticity

Steel Shoes have thick, springy Hair Cushion Insoles, which are easily removable for cleansing and airing. They absorb perspiration and foot odors—absorb the jar and shock when you walk on hard or stony ground. They keep your feet free from callouses, blisters and soreness.

### Steel Shoes Save Doctor Bills

Wear Steel Shoes and you need not suffer from Colds, Rheumatism, Neuralgia, Lumbago, Stiffness of the Joints and other troubles and discomforts caused by cold, wet feet. Keep your feet always warm, dry and comfortable in Steel Shoes. They protect your health and save doctor bills, while adding to your comfort.

### Low Prices on Steel Shoes

Sizes, 5 to 12. 6 inches, 9 inches, 12 inches and 16 inches high.

Steel Shoes, 6 inches high, \$2.50 a pair; better grade of leather, \$3.00 a pair; extra grade of leather, black or tan color, \$3.50 a pair.

Steel Shoes, 9 inches high, \$4 a pair; extra grade of leather, black or tan color, \$5 a pair.

Steel Shoes, 12 inches high, \$5 a pair; extra grade of leather, black or tan color, \$6 a pair.

Steel Shoes, 16 inches high, \$6 a pair; extra grade of leather, black or tan color, \$7 a pair.

### One Pair Will Outwear 3 to 6 Pairs of Leather Shoes

The comfort of Steel Shoes is remarkable. Their economy is simply astounding! Practically all the wear comes on the rivets in the bottoms, and the rivets can be replaced very easily. Don't sweat your feet in rubber boots or torture them in rough, hard, twisted, shapeless leather shoes. Order a pair of Steel Shoes today. Sizes, 5 to 12.

### Order Steel Shoes Today!

We strongly recommend the 6-inch high, at \$3.50 a pair, or 9 inches, at \$5, as they give best satisfaction for general service.

In ordering, state size above you wear. Enclose \$3.50 a pair for 6-inch high, and the best and most comfortable working shoes you ever wore will promptly be shipped to you. Your money refunded if Steel Shoes are not exactly as represented when you see them. Send today!

N. M. Ruthstein, Sec'y and Treas.

STEEL SHOE CO., Dept. 369 Toronto, Canada

Main Office and Factory: Racine, Wis., U. S. A.  
Great Britain Factory: Northampton, England

### Order Blank for Steel Shoes

Steel Shoe Co., Dept. 369 Toronto, Can.

Gentlemen:

I enclose \_\_\_\_\_ for \$\_\_\_\_\_

In payment for \_\_\_\_\_ pair Steel Shoes.

Size \_\_\_\_\_

Name \_\_\_\_\_

Town \_\_\_\_\_ Province \_\_\_\_\_

County \_\_\_\_\_

Dealer's Name \_\_\_\_\_

# EUREKA



## SANITARY CHURN

There's no comparison between the ordinary wooden churn and the "EUREKA". Barrel is stoneware—top is clear glass.

Besides being absolutely sanitary, the glass top enables you to see how the churning is coming along without opening the churn.

Also made with Aluminum top.

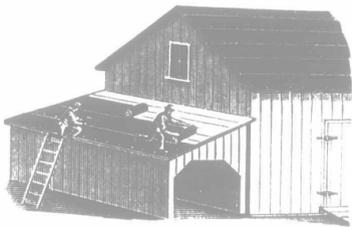
The "EUREKA" is the easiest churn on the market to operate. By tilting back the frame until the weight rests on the wheels, the churn can be quickly and easily moved—while the barrel remain upright.

If your dealer does not handle the "EUREKA," do not take a substitute but write us for catalogue.

EUREKA PLANTER CO. LIMITED, WOODSTOCK, ONT.

## Mica Roofing

For steep or flat roofs, waterproof, fire-proof, easily laid; cheaper than other roofing. Send stamp for sample, and mention this paper.



HAMILTON MICA ROOFING COMPANY,  
101 REBECCA STREET,  
HAMILTON, CANADA.

### QUESTIONS AND ANSWERS.

Miscellaneous.

#### ANGORA GOATS WANTED.

Can you inform me where Angora goats can be had in Ontario? J. L.

Ans.—This is the second inquiry for Angora goats we have received this week. Parties having such for sale may find it to their advantage to advertise them in these columns.

#### FERTILIZER FOR CORN.

I have a field of five acres in poor heart, that is getting weedy. I would like to plant it to corn in hills, and cut it early, and give it a light coat of barnyard manure for fall wheat. What fertilizer would be best on heavy clay soil, so that the corn will get the most out of it, and what would be the best way to apply it, and the quantity for each hill? Oxford Co., Ont. A. M.

Ans.—It would have been better had you stated whether the field is in sod or not and when it last had a crop of clover. We might say that on heavy clay land in Ontario, fertilizers do not, as a rule, produce very marked results. Such soils are more particularly in need of humus, to improve their physical condition. In case the manure can be spared this spring, would strongly advise manuring now, and reserving fertilizer for the wheat. However, some benefit will likely result from the application of fertilizer to the corn but a considerable proportion will remain for subsequent crops to feed upon. This is not to be deplored, since the wheat and clover seeding should be benefited. Try on part of your field, leaving a check strip for comparison: Nitrate of soda, 125 pounds; acid phosphate, 300 pounds; muriate of potash, 80 to 100 pounds. For directions as to mode of application, see answers to other inquiries and article on methods of home-mixing and applying fertilizers.

#### ELECTRICITY FOR FARM PURPOSES.

1. Would electric lights be safe in a stable which is inclined to be damp? I have been told that they are not. I am offered electricity for power and lighting for 10 cents per kilowatt on a meter, or a flat rate of \$16 per horse-power per year. Which would be the cheaper, considering that I would have very little need of the power in summer, except to crush a few oats for horses, and grind feed for a dozen or so hogs?

2. Would a 7½-horse-power motor be strong enough to run a 10-h.p. grinder, and how many cwt. would it grind per hour?

3. What horse-power can be got out of a 14-ft. windmill in a good stiff wind?

4. Would a 7½-horse-power run a blower cutting-box, cutting corn to fill a silo 28 feet high? GRANGER.

Ans.—1. The element of time always enters into the quotation of electric power by metre. Hence, I presume that the 10c. kilowatt means 10c. per kilowatt hour. Now, a kilowatt is 1½-horse-power. Thus, at this rate, 1½-horse-power costs 10c. per hour, or \$1 per day of ten hours, from which we deduce that one horse-power would cost 75c. per day, and that, for 21 days it would cost \$15.75, almost the same as the flat rate quoted for the year. Therefore, if, during the whole year you would use your motor more than 21 days, it would be cheaper to buy your power by a flat rate, than by metre rate.

2. A 7½-horse-power motor would not run a 10-horse-power grinder satisfactorily, without overloading. In this way, the efficiency of the motor is not as great as when running under normal or subnormal load. There would be considerable waste power due to the overloading.

3. With an average wind of 16 miles an hour, a 14-foot windmill will give 2/7 of a horse-power. The "good stiff breeze," however, would probably blow twice as fast, or 32 miles an hour, and with the wind twice as fast, the power would be four times as great, that is 1 1/7 horse-power.

4. It depends on the size and capacity of the cutting-box. With a large size, it is doubtful if a 7½-horse-power motor would run it satisfactorily.

Your best plan would be to consult the maker of your cutting-box, and take his advice. Knowing the size, he will be able to advise as to power required.

WM. H. DAY

# KENDALL'S SPAVIN CURE

To Bring Him Back to the "High-Stepping" Class

THE REMEDY USED ALL OVER THE WORLD

For Spavin, Curb, Splint, Ringbone, Soft Bunches, All Lameness

Horse dealers have made thousands of dollars by buying lame, Spavined Horses, curing them with Kendall's Spavin Cure, and then selling the sound animals at a handsome profit.

You can do the same with your own horses. Here is one man who saved his horse and his money by using Kendall's.

Oak Bay Mills, Que., Dec. 15th, 1909.

"I wish to inform you that I have used Kendall's Spavin Cure with good success, on my horse. I found that it cures quickly and well". Yours truly, ROY HARPER.

\$1. a bottle—6 for \$5. A copy of our book—"A Treatise On The Horse"—free at dealers or from us. 48

Dr. E. J. Kendall Co. - - Enosbury Falls, N.Y.

## VALUABLE VETERINARY BOOK FREE



Write to-day for "Veterinary Experience"—a book that will enable you to be your own veterinarian. It is an invaluable treatise on the horse, horse diseases, and the treatments and remedies which cure. Among other things of vital importance to every horse owner, it tells how and why.

## TUTTLE'S ELIXIR

cures Curb, Splint, Spavin Lameness, Bony Growths, Sprains, Swellings, Shoe Bolls and Founder, Distemper and Colic. Also makes the

### Best Leg and Body Wash.

Tuttle's Elixir has for many years been the main stay of veterinarians and operators of large stables everywhere.

It is quick and sure in action, non-poisonous, cannot injure, pain or bluish the horse. Write for the proofs of our claims. If your dealer doesn't keep Tuttle's, send us his name and 50 cents in stamps, and we will send a large size bottle prepaid. Don't experiment. Get Tuttle's and be sure. Ask also for Tuttle's American Worm and Condition Powders and Hoof Ointment.

Send us your name, address and 2c. stamp now, so we can mail you the Free Book.

TUTTLE'S ELIXIR CO., 205 Beverly St., Boston, Mass.

## Horse Breeders



### Artificial MARE IMPREGNATORS

We GUARANTEE you can get from 2 to 6 mares in foal from one service of stallion or jack. Increase the profits from your breeding stables by using these Impregnators. No experience necessary to use them successfully. Prices, \$3.00 to \$5.00 each prepaid.

Popular SAFETY IMPREGNATING OUTFIT, especially recommended for impregnating so-called barren and irregular breeding mares, \$7.50 prepaid. Write for CATALOGUE which illustrates and describes our Impregnating Devices, Breeding Hobbles, Stallion Bridles, Shields, Supports, Service Books, Etc. CRITTENDEN & CO., Dept. 38, Cleveland Ohio, U.S.A.

## Increase Your Profits

When Writing Mention The Advocate

# FREE-FARM ACCOUNT BOOK

## Know How Much You Make This Year

No one shall pay a cent for **Bickmore's Farm Account Book**. It will be sent free to any farmer who will be good enough to tell who and where he is. The cost of a crop never demanded closer attention. Business farming puts money in the bank. This book is arranged to keep all accounts in simple form—more simple, and certainly more practical, than trying to remember them; shows what to charge against crop production; has a laborer's time record; and section for personal accounts. **64 pages; for ink or pencil.** Not a cheap affair. It is meant for business. Its quality is in keeping with



Send Your Name on This Coupon or on a Postal Card

## BICKMORE'S GALL CURE

a remedy that **cures**, and the horse works all the time. Users keep it in their stables the year round—they believe in it. It is always ready for Harness or Saddle Galls, Chafe, Rope Burns, Cuts, Scratches, Grease Heel, etc. In cows use it for Sore Teats. Don't buy a substitute. Insist on getting Bickmore's Gall Cure—for the sake of your horse's health. But write now for Bickmore's Farm Account Book—it is ready for you. No cost. No obligation. Send your name and address—that's all.

Wingate Chemical Co. Ltd.,  
Canadian Distributors,  
800 Notre Dame St. W., Montreal, Can.



**BICKMORE'S FARM ACCOUNT BOOK**

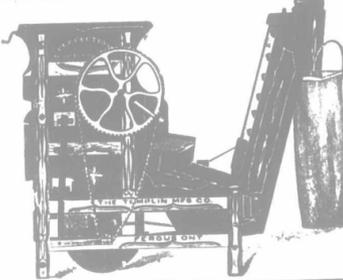
Published by  
BICKMORE GALL CURE CO.

## PERFECTION Seed and Grain Separator

(PATENTED 1901)

The only mill manufactured that will not blow clover, timothy and weed seeds out with the chaff. Other mills are being discarded everywhere that they come into competition with the **Perfection**. Grain travels over 8 feet of screen before the fan-blade strikes it. A child can turn it. Has compound shake, end motion, galvanized deflectors, and many other advantages not found in other mills and too numerous to mention here. Will clean clovers better than any clover mill. See nearest agent, or write for circular "C," giving full particulars, to

THE TEMPLIN MFG. CO.,  
Fergus, Ont. G. T. R.



## 20 Imp. Percheron Stallions 20

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.

HAMILTON & HAWTHORNE,  
Simcoe, Ontario.



## Maher's Horse Exchange

16 to 28 Hayden Street TORONTO  
(Near cor. Yonge and Bloor)

AUCTION SALES of Horses, Carriages, Harness, etc., every MONDAY and THURSDAY at 11 a.m. PRIVATE SALES every day. We have always a large quantity of horses on hand for Auction or Private Sale. We have the biggest and best sale ring and stables in Canada. We hitch and try all horses for out-of-town buyers, and guarantee satisfaction. WE SELL STRICTLY ON COMMISSION.  
P. MAHER, GEO. JACKSON,  
Proprietor, Auctioneer.



## 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 excelled, by any previous importation. Call and see them. Phone connection. T. H. HASSARD, Markham, Ont.

## 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.

**ORMSBY GRANGE STOCK FARM, Ormstown, P.Q.**  
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 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.

## IMPORTED CLYDESDALE FILLIES

I have still on hand six Clydesdale fillies. They are big, smooth fillies, exceptionally well bred, and I their underpinning is the kind Canadians like in the business. Phone connection. Right good ones. My prices are as low as any man in the business. GEO. G. STEWART, HOWICK, QUEBEC.

## CLYDESDALE AND PERCHERON STALLIONS

I have still on hand four Clydesdale and one Percheron stallion. The Clydes are one 4-year-old, two rising 3 and one rising 2. They have the size, character, quality and breeding of the Percheron is a black, rising 4, big and a right good one. All will be sold cheap, on terms to suit. Long-distance phone. T. D. ELLIOTT, BOLTON, ONTARIO.

## IMPORTED CLYDESDALES AND HACKNEYS

In my stables at Ingersoll, Ont., I have always on hand Clydesdale stallions and fillies, and Hackney stallions, personally selected in Scotland for their high-class type, quality and breeding. Let me know your wants. W. E. BUTLER, INGERSOLL, ONT.

## That Was Me!

(Original poem, by Wm. Johnson, St. Mary's, Ont.)

Who strikes a bee line for the gate  
At mealtime, so he won't be late;  
Who gets the big chunk on his plate  
And gravy from the pan;  
Who wears store clothes on Sabbath day,  
And drives a dandy one-horse shay;  
Who nabs the whole crop for his pay?  
The hired man!

Who is the dainty little lass,  
That stands a-peeping in the glass,  
And fixing every time she'll pass  
A waving golden curl;  
Who like a lark from morn till night,  
Sings sweet love songs in pure delight;  
Who's happy as the sun is bright?  
The hired girl!

Who feeds the hogs and tills the land,  
Planks down the dough at our demand;  
Who fights the agents hand to hand,  
And laughs at all their blather;  
Who creeps around and grunts and groans,  
A stack of stiff, rheumatic bones,  
Who pays the taxes and the loans?  
Why, that's father!

Who waits alone when we're asleep,  
To set the bread and dust and sweep,  
So tired that she can hardly creep,  
With endless toil and bother;  
Who's out of bed at five o'clock,  
To milk the cows and see the stock,  
Who never gets new hat or frock?  
That's mother!

Who does not rise each day till nine,  
When all the washing's on the line;  
Who makes a yellow cheek look fine  
As any charming miss;  
Who's cross and cranky as a cat,  
Whose feet are big and broad and fat;  
Who wears a merry-widow hat?  
Why, that's Sis!

Who begged the fivers from old dad,  
Until he scooped out all he had;  
Who soon relieved him of his wad,  
And sailed right up in G;  
Dressed like a dude who starred the street,  
A heavy swell as you could meet;  
The girls all saying—ain't he sweet?  
Why, that was me!

## TRADE TOPIC.

TOLTON BROS., LIMITED.—As the spring season is now opening up favorably, it might be interesting to our readers to know that our representative, having called upon the enterprising firm of Tolton Bros., Limited, of Guelph, Ontario, found them actively engaged and very busy putting up the usual number of their far-famed, all-steel, flexible and section harrows. The manager of this firm tells us that, although this harrow has been manufactured by them for many years, the demand for the same seems just as keen as ever. This can only be accounted for from the real and genuine merits possessed by their harrows, as well as the fact of their being an old and well-established firm, of some thirty-odd years, always following the policy of "not how cheap, but how good" they could make the different implements they manufacture. This has certainly given them rank among the best manufacturers of our land. Their factory is quite busy, running full time, and they speak well of the prospects for the coming season. Harrows are being shipped out every day, which will be followed later by pea harvesters and bunchers, to fill the many orders now on their books. It is with a degree of pride we can point to a firm like this, and say that they are Canadians, raised right in our midst, and in touch with the best interests of the Canadian farmer, as they own and operate a farm themselves, thus giving them great advantages in testing and perfecting the different implements and machines which they manufacture, so that their patrons can, with the utmost confidence, rely on getting the best goods, as well as the greatest consideration when dealing with this firm. Their advertisement may be found in another column of this paper.

Volume 27, of the British Hackney Society's Studbook, recently issued, has been received at this office, thanks to the Secretary, Frank F. Euren, 12 Hanover Square, London, W. It is a well-printed volume of 430 pages.

## Gombault's Caustic Balsam



Warranted to Give Satisfaction.

Has Imitators But No Competitors.  
A Safe, Speedy and Positive Cure for  
Curb, Splint, Sweeney, Capped Hock,  
Strained Tendons, Founder, Wind,  
Fuff, and all lameness from Spavin,  
Ringbone and other bony tumors.  
Cures all skin diseases or Parasites,  
Thrush, Diphtheria. Removes all  
Bunches from Horses or Cattle.  
As a Human Remedy for Rheumatism,  
Sprains, Sore Throat, etc., it is invaluable.  
Every bottle of Caustic Balsam sold is  
warranted to give satisfaction. Price \$1.00  
per bottle. Sold by druggists, or sent by ex-  
press, charges paid, with full directions for  
its use. Send for descriptive circular,  
testimonials, etc. Address  
The Lawrence-Williams Co., Toronto, Ont.

## Bone Spavin

No matter how old the blemish,  
how lame the horse, or how many doctors  
have tried and failed, use  
**Fleming's Spavin and Ringbone Paste**  
Use it under our guarantee—your money  
refunded if it doesn't make the horse go  
sound. Most cases cured by a single ap-  
plication—occasionally two re-  
quired. Cures Bone Spavin, Ringbone and  
Bidebone, new and old cases alike. Write  
for detailed information and a free copy of  
**Fleming's Vest-Pocket  
Veterinary Adviser**  
Ninety-six pages, durably bound, indexed  
and illustrated. Covers over one-hundred  
veterinary subjects. Read this book before  
you treat any kind of lameness in horses.  
FLEMING BROS., Chemists  
75 Church St., Toronto, Ontario

## You Can't Cut Out A BOG SPAVIN, FUFF or THOROUGHESS, but ABSORBINE

will clean them off permanently and you work the horse same time. Does not blister or remove the hair. Will sell you more if you write. \$2.00 per bottle at 4/ers or deliv'd. Book \$1.00. ABSORBINE, JR., for manki-  
ng bottle. Reduces Varicose Veins, War-  
icocele, Hydrocele, Enlarged Muscles or Lig-  
aments, Enlarged Glands. Always pain quickly.  
W. F. YOUNG, P.O.F., 233 Temple St., Springfield, Mass.  
LYMAN Ltd., Montreal, Canadian Agents.

## DUNHAMS' PERCHERONS

46 splendid Percheron stallions and mares arrived FEBRUARY 8th. These, added to our present stock, offer intending 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.

## Peachblow Clydesdales and Ayrshires!

CLYDES—2 four-year registered stallions, one imported. AYRSHIRES—3 very choice bull calves, all registered. All good colors, and from good milking dams. Prices right.  
R. T. BROWNLEE, HEMMINGFORD, QUE.

## NOTICE TO HORSE IMPORTERS

**Gerald Powell**, Commission Interpreter, Negent Le Roten, 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.

## Land Plaster

Car lots or any quantity.  
Write for prices.  
TORONTO SALT WORKS  
128 Adelaide St. E. Toronto, Ont.  
G. J. CLIFF, Manager.



# MOVING PICTURES OF DAN PATCHN 1:55

ABSOLUTELY **FREE** POSTAGE PAID

If you are a Farmer, Stockman or Poultry Raiser and correctly answer, in your postal card or letter reply, the specified questions.

**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

**2400 INSTANTANEOUS PICTURES OF DAN PATCH** 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 multitude. 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. **THIS MOVING PICTURE WILL BE MAILED TO YOU ABSOLUTELY FREE, WITH POSTAGE PREPAID, IF YOU ARE A FARMER, STOCKMAN OR POULTRY RAISER, AND CORRECTLY ANSWER THE THREE QUESTIONS.**

**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.

**IF YOU ARE NOT A STOCKOWNER AND WANT THE MOVING PICTURES SEND ME 25 CENTS.** 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.**

Largest Stock Food Factories in the Entire World  
Cash Capital Paid in \$2,000,000

Address **E. B. SAVAGE, Proprietor of**  
**INTERNATIONAL STOCK FOOD CO., TORONTO, CAN.**

GOSSIP.

Dunham's new importation of 46 Percheron stallions and mares, which arrived February 5th, added to their former large stock, should prove an attraction to those contemplating the purchase of horses of this increasingly-popular draft breed. They are offering a fine selection of Percheron mares, many of them forward in foal. They report record-breaking sales in the last two months. See their advertisement on another page.

Geo. G. Stewart, of Howick, Que., reports, among his recent sales, the stallion Loyal Hero (imp.), to M. McPhaden, of Cresswell, Ont.; the stallion Strathearn King (imp.), to Dr. W. J. Marshall and J. J. Maw, of Petrolia, Ont.; the stallion Sir Vivian (imp.), to J. Kerr, of Howick, Que., for shipment to Manitoba; the stallion Earl of Ancaster (imp.), to J. E. Richmond, of South Durham, Que.; a pair of mares, to Donald Hynchman, of Melburne, Ont., and another to Geo. McKae, of Bainsville, Ont. He has still on hand for sale six exceptionally choice fillies, and one stallion. These fillies are up to a big size, and the kind that are sure money-makers for the men that get them. Mr. Stewart's importations always find a ready sale. For to see them is to be pleased with their size and quality, and their splendid underpinning.

RIDGEDALE HOLSTEINS.

R. W. Walker & Sons, of Utica, Ont., the owners of Ridgedale Stock Farm, and the Ridgedale herd of Holstein cattle, are right in line with the report that never before in their eighteen years' experience in the breeding of the popular black and whites has there been so great a demand for breeding stock; in fact, buyers, when visiting their herd, are so persistent that they are pretty closely sold out just now. None of this herd in the Messrs. Walker's hands have ever been officially tested, but a number bred in the herd have shown great results, winning the Guelph test on two occasions, in the 36-months' class, and many of them are now in the Record of Merit. Sixty pounds a day, on ordinary feed, and no special care, is about the average of the herd, one year after another. The stock bull in service is a son of Tidy Abbecker Mercena Posch, whose dam and sire's dam have records that average 28 lbs. butter in seven days; also his dam and grandam are both in the Record of Merit. With such a richly-bred bull, coupled with cows that give 60 lbs. a day right along, with no extras, the get will surely be a most-desirable lot. In young bulls, there are only three left, and they are all young, those old enough for service being all sold.

TRADE TOPIC.

CEMENT AND ITS USES.—There is nothing at the present time so interesting to the farmer in the line of building material as cement, and the different uses to which it may be put. It is generally admitted by all that, much as has been done in the past, it is practically in its infancy yet. In these times, when the scarcity of timber and lumber is confronting the farmer and builder on every hand, he must of necessity turn to cement for his building material. The Cement Show and Convention to be held at London, Ont., March 29th to April 1st, will be of great interest and profit to all who can spare the time to attend. The cost will be but a trifle, as reduced rates have been obtained on all railroads by buying single-fare tickets, and securing certificates at starting point. The admission to the show and convention is free. No one who is at all interested in the use of cement should miss this opportunity. The different kinds of machinery used in the manufacture of cement in all its different forms of bricks and blocks, will be in actual operation, beside the artistic displays which will be made by the different exhibitors. Township councillors, county councillors, and all officials who have the management of roads and bridges, should make a special effort to attend. Remember the dates, March 29th to April 1st. All information will be promptly given by applying to A. M. Hunt, London, 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 3 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., and  
Brandon, Man.  
**W. D. COLBY, Mgr.**  
Weston, Ont.

AGENTS 200% PROFIT

**HERE IT IS** Agents Coining Money Thousands being sold. Great big money getter for agents. Handy Automatic Hame Fastener. No straps—no buckles—no chains—no freezing of fingers in cold weather. A square deal offer. Horsemen stop—look—listen—buy one—then a dozen. Agent writes, "Hurry up my order—sold out first day." Cary says, "Made \$9.00 yesterday—rush order." This is only one of over 2,000 fast-selling articles we furnish agents. Write today—now—for our latest proposition. Headquarters for agents. No experience needed. Just write—we show how. We want agents—crew managers—men or women—all or part time—home or traveling—to show, take orders for our goods. Write today for FREE SAMPLE. You will make more money than ever before. Costs nothing to investigate—write at once—drop everything else—act quick—time short—let us start you—demand is big—be a Thomas Agent and get the money.

**THOMAS MFG. CO., 544 Wayne St., Dayton, Ohio.**

**Don't Have a Blind One**  
**Wonderful Discovery**  
**"VISIO"**  
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, 1933 Wabash Av., Chicago, Ill.**

**For Sale: REGISTERED HACKNEY STALLION, COCK ROBIN.**  
Three years old; 15 1/2 hands; chestnut; hind feet white. Sire Commodore 3rd, imp., (6695), by Chocolate Jr. (4185). Dam Ada Adair (183), by Robin Adair 2nd, imp., (3907). For description, terms, etc., address: **G. W. CLEMENS, ST. GEORGE, ONT.**

**Imported Clydesdales** Imported and Canadian-bred Clydesdale mares and fillies, from 1 to 5 years of age, of most fashionable breeding, up to a big size, with character and quality. A large range for selection. Phone connection. **Alex. F. McMillan, St. Thomas, Ont.**

**For Sale: Suffolk Punch Stallion,** Sired by pure-bred Suffolk Punch stallion, Ontario, Brown. Six years old. **THOS. KNAGGS, VANDECAR, ONT.**

## Clipped Horses Are Worth More

Horse doctors and authorities recommend that horses be clipped in the spring. This applies particularly to farm horses. They work better, sleep better, and keep in better condition if they are without a long, heavy, sweaty coat of hair. They are less liable to catch cold and can be cleaned in one-fourth the usual time. Long hair saps a horse's energy. No man can work in a heavy fur overcoat all the time, neither can a horse work under similar conditions. This is especially true in the spring when a horse is soft.



The Stewart No. 1 Ball Bearing Horse Clipping Machine is a better machine than any other— for the reasons stated— but it COSTS LESS than most others. This is because there are FEW PARTS and NO DELICATE MECHANISM. It's as simply made as it is operated. YOU CAN GET IT FROM YOUR DEALER FOR ONLY **\$9.75** GET IT NOW. IF YOUR DEALER HASN'T IT WRITE US DIRECT.

**CHICAGO FLEXIBLE SHAFT CO., 110 La Salle Ave., Chicago**



**UNION STOCK - YARDS Horse Exchange**  
WEST TORONTO, CANADA.

The Greatest Wholesale and Retail Horse Commission Market.

Auction sales of Horses, Carriages, Harness, etc., every Monday and Wednesday. Horses and harness on hand for private sale every day.

The largest, best equipped and most sanitary stables in Canada. Half-mile of railway loading chutes at stable door. Quarter-mile open track for showing horses. Northwest trade a speciality.

**HERBERT SMITH, Manager.**  
(Late Grand's Repository.)

**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.**

**Imported Clydesdales**  
My first importation for 1910 has just arrived. Stallions up to a ton in weight, from 1 to 5 years of age. Draft character and faultless underpinning are a predominating feature. Also a few big choice fillies 2 and 3 years of age. **WM. COLQUHOUN, MITCHELL, ONT.** Phone connection.

**WAVERLY CLYDESDALES AND HACKNEYS**  
My 1910 importation of Clydesdale stallions and fillies, and Hackney stallions and fillies, are now in my barns. One and two-year-old Clyde fillies of a character and quality never before excelled. My Hackney stud was never so strong in high-class animals. All are for sale and prices right. **ROBT. BEITH, BOWMANVILLE, ONT.**

**Clydesdales Home from the Shows**  
Intending purchasers would do well to see them before buying. Prices moderate.

**Myrtle, C. P. R. SMITH & RICHARDSON, Columbus, Ont.**  
Brooklin, G. T. R.

**Imported Clydesdales**  
My new importation of Clydesdale stallions for size, style, quality and faultless underpinning with Scotland's richest blood. They will be priced right, and on terms to suit. **C. W. BARBER, GATINEAU PT., QUEBEC.**

## There are No "Small" Wires in this Fence.

Beware of fencing made with both large and small wires. When erected such a fence will not expand or contract evenly.

For instance, in zero weather the large wires contract more than the small wires. The small wires thus become slack. If the weather continues at zero for many hours there is little chance of the small wires taking up the slack when the weather moderates. Ten chances to one your fence will be permanently disfigured.

And in summer, when the thermometer is around ninety, the big wires necessarily expand more than the small wires. This causes a

of the LEADER are No. 9 hard steel wire.

This wire is made by the largest makers of high-grade wire in the world.

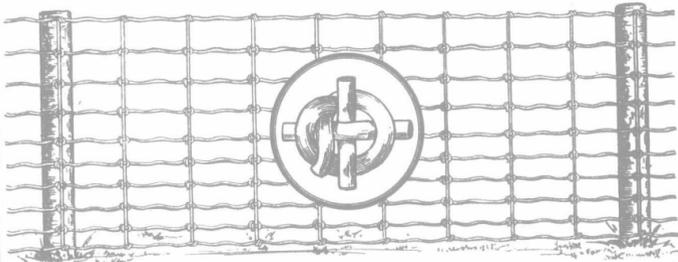
The galvanizing is both thick and wonderfully smooth.

The LEADER defies the weather. It is the most rust-resistant fence on the market.

The LEADER lock has a DOUBLE-grip. It interlocks itself. It is impossible to spring the ends.

We've given you some reasons why it will pay you to choose the BIG WIRE LEADER. But we ask you to write for our booklet, which gives some more reasons why.

# Leader fence



strain on the small wires, which they haven't the strength to resist beyond a certain point. When that point is passed they snap, and the fence becomes seriously damaged.

No doubt you've seen many fences with the small wires hanging slack, and in other cases broken. Now you know the reason for it. So, of course, you'll be careful not to purchase a fence with any small wires in it.

You'll be sure to purchase a "big" wire fence—like the LEADER.

The strands, uprights and locks

### SPECIAL!

Send for booklet to-day. And if you would like to act as our agent in an unrepresented district, ask us to make you a proposition covering both farm and ornamental fence and gates. For those who will order in carload lots we've a special proposition, which includes sending an expert salesman to help close orders, and show how to erect LEADER fence properly. Write us to-day and get further particulars.

The Frame & Hay Fence Co., Ltd., Stratford, Ont.

## CHURCH'S COLD WATER Alabastine

None Genuine Without Little Church on Label

ALABASTINE is now the general vogue in cottages and mason work. Alabastine is more artistic and sanitary than Wall Paper, more effective than oil paint, more permanent than Kalsomine.

Alabastine is a dry powder, made from Alabaster Rock. It comes in white and 21 tints. Alabastine is ready for use by mixing with cold water, and is applied with a flat bristled brush. Its colors are permanent, and do not rub off. Alabastine is a cement, and hardens with age. It can be recoated without removing the old coat.

**FREE STENCILS**

We have organized a Decorative Department, and will furnish FREE COLOR SCHEMES to all users of Alabastine. We also offer FREE STENCILS for producing the design we suggest. Write today.

**THE ALABASTINE CO., LTD.**  
31 Willow St., Paris, Ont.

The electrically-welded, solid-piece frame gives strength and stiffness to

## Peerless Farm and Ornamental Gates

We build Peerless Gates to last a lifetime—handy, convenient and attractive. They remain staunch and rigid through all kinds of rough usage. The frame is

made of heavy steel tubing electrically welded into one solid piece. The Peerless Gate, like the Peerless Fence, saves expense because it never needs repairs. We also make poultry, lawn and farm fences of exceptional strength. Write for free book.

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

### GOSSIP.

#### A. W. SMITH'S MAPLE LODGE SHORTHORN SALE.

Included with the young bulls to be offered at the Maple Lodge, Ont., sale of Shorthorns on March 24th, is the present stock bull, Merry Mistletoe, just two years old. He is large, deep-bodied, and has excellent flesh, a bright roan color, and handsome appearance, is a splendid worker and very sure. His sire is Imp. Lord Mistletoe, of the Marr Missie family, his dam Imp. Merry Girl 7th, a Mysie, and having every appearance of being an excellent milker, while she has the good points of first-class beef type.

Merry Mistletoe is offered because of the small number of bulls left in the herd; all the cows and heifers in the catalogue have been bred to him.

Two of the other three bulls are of the Lavinia family; one of them, a roan, is grandson of 14th Princess of Thule, who took a very high place in the six months' dairy test during the Pan-American Exposition at Buffalo, N. Y., 1901.

The fourth is a red, a strong, deep-bodied, thick bull, from one of our best milkers.

The cows and heifers are an excellent lot, young, in nice condition, showing splendid beef type, and largely bred from our best milkers.

The females offered in the sale should attract many buyers. The individual excellence of almost the whole lot catalogued is on a very high plane, judged from a strictly beef standpoint. Nearly all of them are daughters or granddaughters of that great imported bull, Knuckle Duster, so long and successfully used, both in Scotland and Canada.

This grand old bull stamped his offspring with a smoothness and wealth of natural flesh not often equaled, together with closeness to the ground, style, and true Shorthorn character. He was from Mr. Bruce's Augusta family, that furnished so many champion winners at the great Smithfield Fat-stock Show in England, while in the Maple Lodge herd daughters of his have given 50 lbs. of milk per day.

All the younger things were sired by Village Gloster, a splendidly-bred Cruickshank bull, got by the sire of champions, Mr. Dryden's Prince Gloster. Village Gloster was a large bull, well covered with good flesh, very true lines, and weighed 2,600 pounds. The cross nicked well following Knuckle Duster, and a handsome lot of good things, with plenty of size, is the result, all of which are offered. The females old enough to breed, have been served by the rich roan Mysie bull, Merry Mistletoe, another robust, smooth, big bull, and size, with quality, is a very desirable asset for the Shorthorn cattle to-day.

The faith in the best type of Shorthorns from a beef standpoint, being at the same time very profitable as milkers, has been maintained at Maple Lodge for over fifty-five years, and demonstration of the correctness of the claim of deep-milking qualities in the herd have been given repeatedly at the Provincial dairy tests, ranking close to the highest at times in competition with the best of the strictly dairy breeds.

There are twelve head of the Lavinia family to be sold. This is one of the very best milking families in the herd, and has furnished first-prize winners in Provincial dairy shows. Irish Ivy was one of them, and has a private record of 11,500 lbs. milk in one year. There are two of her granddaughters to be sold. Several descendants of Rian Blanche, another prizewinner, all handsome heifers. A very choice heifer is Maple Lodge Cecilia, a straight Campbell Cecilia, whose dam is a grand milker; has given 435 lbs. in seven days. Then there are Cruickshank Mysies, Lovelys, etc., of choicest breeding. There are young cows and heifers to calve in the early spring, and younger ones to calve in the fall and early winter. The exacting buyer can be satisfied, and supply himself with what is to be the best selling Shorthorns of the future, those of attractive beef type, and profitable as milkers. The particulars are fully given in the catalogue. Send for one. The train service is good, and parties going by train can get off at the stables, and all lovers of Shorthorns will be made very welcome. Maple Lodge is one mile west of Lucan Crossing, and three miles east of Ailsa Craig. G. T. R.

## Don't Wear A Truss

After Thirty Years' Experience I Have Produced an Appliance for Men, Women or Children That Cures Rupture.

### I Send It On Trial.

If you have tried most everything else, come to me. Where others fail is where I have my greatest success. Send attached coupon to-day and I will send you free my illustrated book on Rupture and its cure, showing my Appliance and giving you prices and names of many people who have tried it and were cured. It is instant relief when all others fail. Remember, I use no salves, no harness, no lies. I send on trial to prove what I say is true. You are the judge, and once having seen my illustrated book and read it you will be as enthusiastic as my hundreds of patients, whose letters you can also read. Fill out free coupon below and mail to-day. It's well worth your time, whether you try my Appliance or not.

#### FREE INFORMATION COUPON

C. E. Brooks, 2796 Brooks Bldg., Marshall, Mich.  
Please send me by mail in plain wrapper your illustrated book and full information about your Appliance for the cure of rupture.

Name.....  
Address.....  
City..... State.....

## Nitrate of Soda

Nitrate Sold in Original Bags

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- Louisiana.....305 Baronne St., New Orleans
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Write for Quotations

### MESSRS. HICKMAN & SCRUBY

Court Lodge, Egerton, Kent England.  
Export pedigree live stock of every description. Owing to rapid increase in business, Mr. L. C. Scruby has been taken into partnership. During the spring months the export of horses will be a specialty. We are at this business all the year round, and can do better for you than you can do for yourself, even if you do come over to do our own business. Send us your orders, and we will do the best we can for you. Nobody can do more.

## Herefords

One 45-months bull, low-set, best type, an extra good one. Two 11-months bulls, good ones and in good order; also several 8- to 10-months bulls. All from prizewinning stock.

H. D. SMITH, Hamilton, Ontario.  
"Ingleside Farm."

## The Maples Herefords

Canada's Greatest Show Herd

For sale: 6 young bulls and a number of young females, bred from imported and show stock. None better. Prices right.

W. H. HUNTER, Orangeville, Ont., P.O. & Sta.

## Balmedie Polled Angus and Oxford Dows

several exceptionally nice heifers, and a few young bulls. Discriminating buyers will be pleased with my herd. Anything in the herd will be priced. Also ram and ewe lambs. T. B. Broadfoot, Fergus P. O. and Station.

## 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, Springville, Ont.  
Long-distance Phone.

## FOR SALE: SOME NICE YOUNG

### Aberdeen-Angus Bulls

and some females of all ages. Also a first-class Clydesdale stallion. J. W. Burt, Coningsby, Ont.

## ABERDEEN - ANGUS

Will sell both sexes; fair prices. Come and see them before buying. Drambo station.

## WALTER HALL, Washington, Ont.

### Aberdeen-Angus

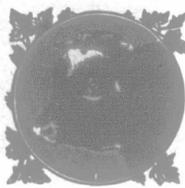
Young bulls fit for service. Cows with calves at foot. Heifers. If you want anything in this line write: James Sharp, "Twohill," Rockside, Ont. Cheltenham Sta., C. P. R. and G. T. R., also Erie, C. P. R.

### Aberdeen-Angus Cattle

Stock all ages, and both sexes, good strains, at reasonable prices. Apply to ANDREW DINSMORE, "Grape Orange" Farm Clarksburg, Ont.

# SHORTHORNS BY PUBLIC AUCTION

At **MAPLE LODGE STOCK FARM** on **Thursday, March 24th, 1910**



On above date I will sell about **30 head of Shorthorns**, four of them young bulls. All the heifers, one, two and three years old, in the herd will be offered. They are all an extra good lot, and include several Scotch-bred ones, as well as some with Scotch tops on good English foundation. A large number of them are splendidly bred for milk production. A rare chance to get the first-class milking quality combined with the best beef type.

Six months' credit on approved paper. Trains from Stratford, G. T. R., at 9.25 a.m. and 1.30 p.m., will stop at farm. Lucan Crossing is one mile. Trains on London and Wingham branch stop there. Send for catalogue and come to the sale.

**A. W. SMITH, Maple Lodge P.O., Ont.**

**This Fence Stands Every Test**

Hard drawn steel running wires and "The Tie That Binds", give a strength that resists every strain.

Heavy galvanizing protects against rust. Patent Posts are made of No. 12 gauge steel, bent at right angle, to give the maximum strength at reasonable cost. No staples required to put fence on posts—we've attended to that.

**STANDARD WOVEN WIRE FENCE**

In fully explained in detail in our book. Write for free copy and sample book.

The Standard Wire Fence Co. of Woodstock Limited, Woodstock, Ont. & Brandon, Man.

**CALF FOOD**

**BIBBY'S CREAM EQUIVALENT MEAL** added to water, half a pound to six quarts, makes a gruel which CONTAINS ALL THE ELEMENTS of nutriment found in a like quantity OF FRESH MILK. There is no other food save fresh milk itself which contains so much nutriment for calves and young pigs. We are convinced that this is the best article of its kind and want you to use it. It is made in England by an honorable firm and you can "bank" on their word. Give it a trial.

50 lb bags, \$2.25      100 lbs., \$4.00  
Sold by Reliable Dealers Everywhere, or direct  
WM. RENNIE CO., LIMITED, TORONTO

**CALDWELL'S MEAL**

Non-medicated.

(NEW PROCESS)

For Cattle, Horses, Sheep and Hogs.

When substituted for part of the ordinary food a perfect balanced ration is formed, the aim of every intelligent feeder. Manufactured only by

**A. G. CALDWELL, EAST TORONTO.**

PRICE, FREIGHT PREPAID, \$34.00 PER TON.

**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.**

**SALEM SHORTHORNS!**

Young bulls and heifers, sired by the great show and breeding bull, Jit Victor (imp.), at J. A. WATT, SALEM, Long-distance Telephone.

moderate prices. If you see them you will want to own them.

ONT. ELORA STATION, G. T. R. and C. P. R.

**VALLEY HOME SHORTHORNS AND BERKSHIRES**

If you want a first class Shorthorn bull or heifer come and see what we have, or if you want a show animal with a choice pedigree we have them. For description of herd see Xmas Number of The Farmer's Advocate, on last page. S. J. PEARSON, SON & CO., MEADOWVALE, ONT., P. O. AND STATION, C. P. R.

**CHOICE SCOTCH BULLS**

FOR SALE. HERD-HEADING QUALITY.

H. SMITH, R. R. 3, Hay, Huron Co., Ont. Farm adjoins Exeter, on G. T. R.

**GOSSIP.**

John Thornton & Co. have just disposed of the famous little Horwood herd of Jerseys—one of the oldest herds in the United Kingdom. The 38 head brought excellent bidding from a large company present. The highest price paid was 33 guineas, for the cow Bombazine, sold to A. E. Baker, of Stony Stratford.

**THE CARGILL SHORTHORNS.**

The Cargill herd of Scotch Shorthorns, property of H. Cargill & Son, Cargill, Ont., when recently visited by a representative of "The Farmer's Advocate," was found considerably below their usual strength in point of numbers, many sales having been made; in fact, thus far, 1910 is proving a record-breaker, for while no especial efforts have been made to place the merits of this great herd before the people, their rapidly-growing popularity is but the outcome of their superior merit and breeding being gradually understood, for certain it is that nowhere else in Canada can be found a herd of 150 head of Shorthorns bred on those fashionable Scotch lines that are so much sought after, and carrying such a wealth of thick, natural flesh, and strong constitutions, every one either imported from the leading herds of Scotland, or bred from imported stock, those not directly imported being the get of such richly-bred bulls as Imp. Diamond Rex, a Marr Roan Lady; Imp. Lord Mistletoe, a Marr Missie; Imp. Merchantman, a Marr Missie; Imp. Golden Drop Victor, a Cruickshank Golden Drop; Imp. Uppermill Omega, a Marr Maude; White Hall Marshall, a Marr Missie; Imp. Golden Banner, another Missie; Imp. Rosicrucian of Dalmeny, a Regina; Imp. Bapton Chancellor, a Cruickshank Crocus, and the present stock bulls, the Duthie-bred Imp. Blood Royal, a bull immensely thick of flesh and very low down, and proving a grand sire; Imp. Proud Hero, bred by Duthie, sired by the Graceful-bred bull, Pride of Holl, dam Zoe 10th, by the Missie bull, Scottish Crown, a bull remarkably even of flesh, thick and mellow, that should prove a wealth to the herd; and Imp. Red Star, one of the kind all too scarce in this country, a strictly high-class animal, rich in flesh evenly put on, sired by the Roan Lady bull, Vanguard. It is safe to say that never in the history of this renowned herd was it headed by such a trio of high-class bulls as now. About twenty-five heifers, from 10 months to 2 1/2 years of age, principally the get of Lord Mistletoe and Blood Royal, make a most interesting exhibit, high-class in type, rich in breeding, and in prime condition, many of them show animals of a high order. No better buying can be found with which to found a herd. Out of a total of 29 young bulls, there are only about half a dozen left, but these are of high-class merit. Friar Tuck, a roan, 15-months-old bull, by Blood Royal, dam Imp. Floretta, a Brawith Bud, is one that will please the most exacting, carrying, as he does, a grand wealth of flesh. He is a herd-header of a high order. Another grand young bull is Monarch, a roan yearling, got by the same sire, and out of the Mayflower-bred cow, Imp. Marion. This is a remarkably thick young bull, and very mellow; he will surely make a great sire. A stock bull bred in this herd is a sure guarantee that he will make good, for breeding will surely tell.

**The "STAY THERE"**

**Aluminum Ear Markers** are the best. Being made of aluminum they are brighter, lighter, stronger and more durable than any other. Fit any part of the ear. Nothing to catch on feed trough or other obstacle. Your name, address and any series of numbers on each tag. Sample tag, catalogue and prices mailed free. Ask for them. Address

**WILCOX & HARVEY MFG. CO.**  
Dept. D, 325 Dearborn St., Chicago, Ill.

**Maple Grange Shorthorns**

An offering of an extra choice lot of 1-, 2- and 3-year-old heifers, Scotch and Scotch-topped, Claretta, Nonpareils, etc., sired by Royal Bruce, Imp. and among them are daughters and granddaughters of imp. cows. Young bulls also for sale.

**R. J. DOYLE, Owen Sound, Ont.**  
Phone connection.

**GEO. AMOS & SONS**

MOFFAT, ONTARIO.

Herd headed by Lancaster Floral, by Old Lancaster (Imp.), Scotland's Crown, by Ben. Lowmond (Imp.) and Waverly, by Mildred Royal. Write, or come and see us. **White Wyandotte Eggs**, good strains, \$1.50 per 15.

Farm 11 Miles East of Guelph, C. P. R.

**GLENGOW**

**Shorthorns**

Have two excellent bulls left yet, both about ten months old, and good enough for any herd; also a number of choice heifers, all ages. For particulars write to:

**Wm. Smith, Columbus, Ont.**

**SHORTHORNS, Berkshires, Cotswolds.**

In Shorthorns, 53 head to select from: 20 calves (13 bulls and 7 heifers), 7 yearling heifers, 3 two-year-old heifers, and the balance cows from 3 years up. No Cotswolds or Berkshires to offer.

**Chas. E. Bonnycastle, Campbellford, Ont.**  
STATION AND P. O.

**High-class Scotch Shorthorns**

We are now offering choice young bulls of serviceable age, and a number of one and two year old heifers. Most fashionably bred, and high-class show things among them. Also one two-year-old Clydesdale stallion, with size and quality.

**Goodfellow Bros., Macville P. O., Ontario.**  
Holton station.

**Shorthorn Bull and Females.**

We now offer a choice 11-months-old red bull calf of good quality, straight lines and nicely fleshed. Dam, by Joy of Morning, is a good milker, of the Mysie family. Sire the well-known Golden Count. Have also for sale a good young red cow with heifer calf at foot, and a few choice heifers, all bred by Prince Victor. **J. & D. J. Campbell, Fairview Farm, Woodville, 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. Weston Sta., G.T.R. & C.P.R. Long-distance phone in house.

**HIGHFIELD P. O., ONTARIO.**

**CLOVER DELL SHORTHORNS**

Present offering: A few females of breeding age, also 1909 young stock, both sexes, at reasonable prices.

**L. A. Wakely, Bolton, Ont.**  
Bolton Junction, on C. P. R., within one-half mile of farm.

**Shorthorns, Clydesdales and Oxford Down Sheep**

Scotch Shorthorns: Several red bulls 10 months of age, by Protector, imp.; some with imp. dams; heifers 2 and 3 years of age. Clydesdale mares and fillies. Lincoln and Oxford sheep. All at reasonable prices. Phone connection. **McFarlane & Ford, Dutton, Ont.**

**Shorthorns and Oxford Down Sheep**

Young bulls and heifers of richest Scotch breeding and highest quality. Twelve ewe lambs, two aged rams and two ram lambs. None better. Phone connection. **Durcan Brown Iona P. O., Ont.**

**Shorthorns and Leicesters.** For sale: Choice bred young bulls, and a number of 1 and 2 year-old heifers. All got by Imp. sires, and out of grand milking dams. And Leicester rams and ewes of all ages. **W. A. Douglas, Tuscarora, Ont.,** Caledonia Station.

# Lump Jaw



The first remedy to cure Lump Jaw was

## Fleming's Lump Jaw Cure

and it remains today the standard treatment, with years of success back of it, known to be a cure and guaranteed to cure. Don't experiment with substitutes or imitations. Use it, no matter how old or bad the case or what else you may have tried—your money back if Fleming's Lump Jaw Cure ever fails. Our fair plan of selling, together with exhaustive information on Lump Jaw and its treatment, is given in Fleming's Vest-Pocket Veterinary Adviser.

Most complete veterinary book ever printed to be given away. Durable bound, indexed and illustrated. Write us for a free copy.

FLEMING BROS., Chemists,  
75 Church St., Toronto, Ontario

**A. Edward Meyer**  
P. O. Box 378, Guelph, Ont.,

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.

**Shorthorn Cattle**

Would price my stock bull, Star Prince = 53900 = Red. It would pay anyone wanting a bull to come and see his produce. Oldest bull I have left by him will be a year old in February. A winner in Toronto and London. Females of all ages. Some very good heifers in nice condition. All reds or good roans.

**J. T. GIBSON, DENFIELD, ONT.**

**Scotch Shorthorns**

At Toronto Exhibition this fall yearling bulls bred by us won 1st and 3rd in class and junior champion. We also bred the sire of these bulls. The grand champion steer at Guelph was sired by a bull of our breeding. We have 10 young bulls for sale now, bred the same. Write for breeding and prices.

**John Miller, Brougham P. O., Ontario.**  
Claremont Stn., C. P. R., 3 miles.

**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.**

**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 station, also Waldemar station.**

**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, Benachie (imp.) = 69954 = ; also Shorthorn females and Yorkshire sows. Erin shipping station, C. P. R.

During the delivery of an after-dinner speech to a gathering of lawyers at Washington, Joseph H. Choate told of a unique sentence once imposed by a Scotch judge. When this sentence had been pronounced, his honor offered the following remarks:

"Ye did not only kill and murder the man, and thereby take away his valuable life, but ye did push, thrust, or impel the lethal weapon through the band of his regimental trousers, which were the property of his majesty."

The more you eat

**Quaker Oats**

the better your health will be.

Practical experiments with athletes show Quaker Oats to be the greatest strength maker.

**Western Fair Prize List.**

The two hundred and fifty dollars added to the Western Fair horse prize list for 1910, has been assigned principally to the harness sections. The high-stepping class was made an open one this year, allowing horses exhibited in any other class to be shown in this, on condition of an extra entry fee. A section has been added for stallions in harness. Some offers of specials were received and accepted by the Horse Committee, including two medals from the American Hackney Horse Society, for best Hackney stallion and best Hackney mare.

Both the Horse and Cattle Committees are asking the Executive to withdraw the rule from the prize list which withholds a third prize where there is no competition. We understand this will be done.

The cattle prizes were increased as follows: Shorthorns, \$35; Jerseys, \$25; Ayrshires, \$25; Holsteins, \$30; Herefords, \$25; Aberdeen-Angus, \$20. The Dominion Shorthorn Breeders' and the Canadian Hereford Breeders' Associations, offered the same grants as last year. The Holstein-Friesian Association offered \$100 if the Exhibition Association would duplicate it, and raise their prize list to the level of that for the other dairy breeds. The Exhibition Association were not prepared to go so far as that, but decided to scale up the prize list to the level of the other dairy breeds, and duplicate \$50.

Two hundred and fifty dollars has been added to the poultry prize list. Fifty cents has been added to the first prize all the way through the list. This, we are informed, brings the Western Fair poultry prize list up to that of Toronto, save in respect to the third prize.

Dairymen will learn with much satisfaction that a cold-storage system is to be installed to accommodate the cheese exhibit.

In the agricultural department, a sheep exhibit is provided for, not confined to the standing field-crop competitors, but open to anybody. There are five sections, to wit: wheat, white oats, black oats, barley and corn, three sheaves of each to be exhibited. Some minor additions are made to the prize list in various sections.

In horticulture, a section has been added in both apples and peaches, for the best display of fruit, set up in ornamental and artistic designs. Silver and bronze medals will be given by the Fair Association as first and second prizes in each section.

**GOSSIP.**

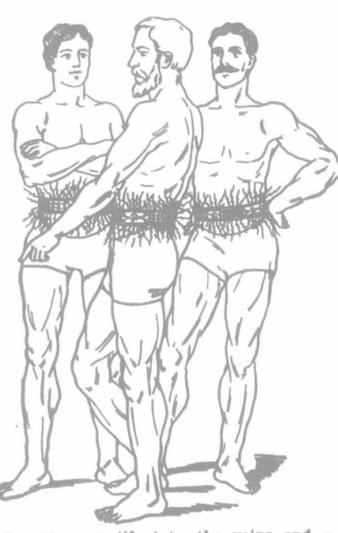
Farmers or others intending to build house, barn, or silo, may do well to look up in this paper the advertisement of John B. Smith & Sons, Toronto, who are prepared to supply lumber, shingles, doors, etc., at short notice, and of best quality.

The first selection in seed grain is always the best. Wm. Barnett & Sons, Living Springs P. O., Ont., write that they are having good demand for their seed grain. The improved Ligowa oats advertised, have been grown from seed that was selected by hand for five years, under the rules of the Canadian Seed-growers' Association, Ottawa. The Mandschouri barley is a pure, bright sample, free from weeds. Those who want good, reliable seed, at moderate rates, should write for prices and samples, and order early while the supply lasts.

T. D. Elliott, of Bolton, Ont., reports an active demand for Clydesdale stallions and fillies of the right size and quality, his last fall's large importation finding a ready sale, which speaks well for Mr. Elliott's selections. He has still on hand four Clydesdale stallions and one Percheron stallion. The Clydesdales are one rising five years, two rising three years, and one rising two years; big, thick horses, that are needed in plenty of districts in Ontario this coming spring, for there never were better prospects ahead of stallion owners in Canada than now, and it is going to continue. The Percheron stallion is a black, rising four years, a big, massive horse, on the best of bone, ankles and feet. All these horses are for sale, at right prices, and on terms to suit.

# STRENGTH

## FREE TO MEN



### How to Regain It Without Cost Until Cured

Strength of body—strength of mind. Who would not possess it if he could? It is nature's greatest gift—our most valuable possession. Without this strength, life is a failure, with it everything is possible. Almost every man was made strong, but few have been taught how to preserve this strength. Many, through ignorance, have wasted it recklessly, or used it up excessively, leaving the body exhausted, the nerves shaky, the eyes dull, and the mind slow to act. There are thousands of these weak, puny, broken-down men, dragging on from day to day, who might be as strong and vigorous as ever they were if they would only turn to the right source. Electricity cures these weaknesses. It gives you back the very element you have lost.

It puts new life into the veins and renews the vigor of youth. For 40 years I have been curing men, and so certain am I now of what my method will do, that I will give to any man who needs it, my world-famed **DR. SANDEN ELECTRIC BELT AND SUSPENSORY, FREE UNTIL CURED.** You pay nothing down, you deposit nothing, you risk nothing; but, upon request, I will furnish you with the Belt to use, and, if it cures, you pay me my price. If you are not cured, or satisfied, return the Belt to me, and that ends it.

As I am the originator of this method of treatment, and have made it a great success, there are many imitations of my Belt; but my great knowledge, based on 40 years' experience, is mine alone. My advice is given free with the Belt.

This offer is made especially to men who lack strength and vitality, who have nervousness, lost vigor, varicocele, etc., but I also give my Belt on the same terms to sufferers from Rheumatism, Lame Back, Sciatica, Kidney, Liver and Stomach Troubles.

Write for a Belt to-day, or, if you want to look into the matter further, I have two of the best books ever written on Electricity and its medical uses, which I send free, sealed, by mail.

## DR. A. F. SANDEN,

140 YONGE STREET, TORONTO ONTARIO.  
Office hours—9 to 6; Saturdays, until 9 p. m.

### 275 BURLINGTON SHORTHORNS 275

**3 Choice Imported Scotch Shorthorn Bulls—yearlings.**  
**1 Imported 2-year-old Bull, red—an extra sire.**  
**10 Bulls, 9 to 16 months old—all by imported sire.**  
**30 Choice Young Cows and Heifers—mostly bred or have Calves at foot.** Long-distance telephone. Farm 1/4 mile from Burlington Jct Sta., G. T. R. **J. F. Mitchell, Burlington, Ont.**

**SCOTCH SHORTHORNS**—Eight extra good young bulls, from 10 to 15 months old; 20 choice cows and heifers, forward in calf or with calves at foot. Prices reasonable. Inspection invited. **W. G. PETTIT & SONS, Freeman, Ont.** Farms close to Burlington Jct., G. T. R.

**INVERNESS SHORTHORNS** I can supply Shorthorns of all ages, with richest Scotch breeding and high-class individuality. **W. H. EASTEBROOK, 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 bred. **PORTER BROS., APPLEBY P.O., BURLINGTON STA. Phone.**

# SPRING

We will pay Very High Prices for original collections. WRITE US NOW.

# RATS

**Raw Furs** Of all kinds. Write for our Complete Price Lists and SHIP NOW.

Prompt Returns. **E. T. CARTER & CO., 84 Front St. E. TORONTO, ONT.** We Pay Express.

### Meadow Lawn Shorthorns

I am offering for sale young stock, both bulls and heifers, of richest Scotch breeding, and of high-class show type. I can show some of the best young things in the country. **F. W. EWING, SALEM P. O., ONT., FLORA STATION.**

# I Cured My Rupture

## I Will Show You How To Cure Yours FREE!

I was helpless and bed-ridden for years from a double rupture. No truss could hold. Doctors said I would die if not operated on. I fooled them all and cured myself by a simple discovery. I will send the cure free by mail if you write for it. It cured me and has since cured thousands. It will cure you.

Fill out the coupon below and mail it to me today

### Free Rupture-Cure Coupon

**CAPT. W. A. DOLLINGS,**  
Box 30, Watertown, N. Y.  
Dear Sir:—Please send me free of all cost your New Discovery for the Cure of Rupture.

Name.....  
Address.....

## Jerseys and Chester Whites

I am offering some choice young Jersey bulls, sired by Brampton's Blucher, winner of first prize, Toronto and Winnipeg, and from choice, deep-milking cows with good teats. Also Chester White pigs, 3 to 4 months old, both sexes, at special prices.

CHAS. E. ROGERS, Dorchester, Ont.

## BRAMPTON Jerseys

CANADA'S GREATEST JERSEY HERD  
We are offering for sale one 2-year-old bull and four yearlings, fit for service; also six bull calves; females of all ages. Come and see them, or write.

E. H. BULL & SON, BRAMPTON, ONT.

## High Grove Jerseys and Yorkshires.

No better blood in Canada. Present offering: Two young bulls, 12 and 20 months old, respectively; females all ages. Prices and all information on application.

ARTHUR H. TUFTS, P.O. Box 111, Tweed Ont.

## For Sale—Registered Jersey Bull, dropped strain. Apply to

F. L. Cartwright, Box 28, Kingston, Ont.

John Smith had worked for the corporation for forty-odd years, and decided to quit. The company, in consideration of his long and faithful service, arranged to give him a monetary recognition. The superintendent of the works, a German, and an extra-good mechanic, was asked to present it. He was advised to use a little sentiment in making the presentation speech, and this is the way he did it: "John, you have worked for the company over forty years?" "Yes." "You are going to quit?" "Yes." "Well! They are so glad of it that they asked me to hand you this hundred dollars."

## RHEUMATISM WEATHER, THIS

But Dodd's Kidney Pills Always Cure Rheumatism.

## What They Did for W. H. Craine, and Why They Always Cure Rheumatism—They Remove the Cause.

Toronto, Ont., March 14.—(Special).—In these days of sudden changes of temperature, known to so many suffering people as Rheumatism weather, the experience of W. H. Craine, of 103 Gladstone Ave., this city, is of widespread interest. Mr. Craine suffered from Rheumatism. He is cured, and he knows the cure. It was Dodd's Kidney Pills.

"Yes, I know Dodd's Kidney Pills cured my Rheumatism," Mr. Craine states. "For after I started taking them I used no other medicine. I never cease recommending Dodd's Kidney Pills to my friends."

Dodd's Kidney Pills cure Rheumatism by putting the Kidneys in condition to strain the uric acid out of the blood. It is uric acid in the blood that causes Rheumatism. Cold or damp causes it to crystallize at the muscles and joints, and then comes those tortures every rheumatic knows only too well. Dodd's Kidney Pills cure Rheumatism by curing the Kidneys. The cured Kidneys remove the cause of the Rheumatism.

### GOSSIP.

CANADIAN HOLSTEIN-FRIESIAN OFFICIAL SEVEN- AND THIRTY-DAY TESTS FOR JANUARY, 1910.

(Note.—Butter is calculated on a basis of 80 per cent. fat.)

Evergreen March (3896), at 7 years 8 months 4 days of age: 16.92 lbs. butter-fat, equivalent to 21.16 lbs. butter; 503.33 lbs. milk. Owned by G. W. Clemons, St. George, Ont.

Rose De Kol Teake (6976), at 5 years 3 months 22 days: 14.22 lbs. butter-fat, equivalent to 17.78 lbs. butter; 404.11 lbs. milk. Owned by G. W. Clemons.

Beauty's Buffalo Girl (3562), at 9 years 9 months 18 days: 14.20 lbs. butter-fat, equivalent to 17.75 lbs. butter; 411.2 lbs. milk. Owned by Tig Wood, Mitchell, Ont.

Frau La Honda (8536), at 8 years 8 months 5 days: 13.22 lbs. butter-fat, equivalent to 16.53 lbs. butter; 462. lbs. milk. Owned by Samuel Dickie, Central Onslow, N. S.

Lottie La Honda (7868), at 13 years 2 months 10 days: 13.22 lbs. butter-fat, equivalent to 16.52 lbs. butter; 401.25 lbs. milk. Owned by Samuel Dickie.

Mollie of Bayham 3rd (9671), at 4 years 6 months 9 days: 19.60 lbs. butter-fat, equivalent to 24.50 lbs. butter; 546.34 lbs. milk.

Thirty-day record: 81.32 lbs. butter-fat, equivalent to 101.65 lbs. butter; 2,515.77 lbs. milk. Owned by E. Laidlaw & Sons, Aylmer, Ont.

Mutual Friend Dione (8602), at 4 years 8 months 18 days: 18.45 lbs. butter-fat, equivalent to 23.06 lbs. butter; 510.2 lbs. milk. Owned by A. C. Hardy, Brockville, Ont.

Miss De Kol Kent (7179), at 4 years 9 months 4 days: 18.07 lbs. butter-fat, equivalent to 22.59 lbs. butter; 506.1 lbs. milk. Owned by E. Laidlaw & Sons.

Lady Woodcrest Paxton (11512), at 4 years 4 months 18 days: 15.87 lbs. butter-fat, equivalent to 19.96 lbs. butter; 528.9 lbs. milk. Owned by A. C. Hardy.

Prokula De Kol (6635), at 4 years 8 months 19 days: 14.02 lbs. butter-fat, equivalent to 17.53 lbs. butter; 456.1 lbs. milk. Owned by Tig Wood.

Helbon De Kol 2nd (8511), at 3 years 1 month 2 days: 14.71 lbs. butter-fat, equivalent to 18.39 lbs. butter; 428.5 lbs. milk.

Thirty-day record: 59.88 lbs. butter-fat, equivalent to 74.81 lbs. butter; 1,720.04 lbs. milk. Owned by E. Laidlaw & Sons.

Nellie Mercedes Beauty (7871), at 3 years 6 months 23 days: 13.90 lbs. butter-fat, equivalent to 17.38 lbs. butter; 432. lbs. milk. Owned by Arthur Dickie.

Clothilde Beauty (7139), at 3 years 2 months 9 days: 13.51 lbs. butter-fat, equivalent to 16.89 lbs. butter; 365.2 lbs. milk. Owned by W. J. Bailey, Naber, Ont.

Nellie's Pet (7489), at 3 years 5 months 18 days: 11.22 lbs. butter-fat, equivalent to 14.03 lbs. butter; 306.8 lbs. milk. Owned by Tig Wood.

Maple Grove Mercena (7405), at 3 years 1 month 2 days: 10.87 lbs. butter-fat, equivalent to 13.59 lbs. butter; 283.4 lbs. milk. Owned by H. Bollert, Cassel, Ont.

Ideal Daisy (7138), at 3 years 1 month 22 days: 10.75 lbs. butter-fat, equivalent to 13.43 lbs. butter; 259.7 lbs. milk. Owned by W. J. Bailey.

Kate Castleton 2nd (7460), at 3 years 4 months 12 days: 10.45 lbs. butter-fat, equivalent to 13.06 lbs. butter; 309.25 lbs. milk. Owned by G. W. Clemons.

Aaggie Emily (9681), at 2 years 2 months 21 days: 11.60 lbs. butter-fat, equivalent to 14.50 lbs. butter; 353.50 lbs. milk. Owned by Samuel Dickie.

Quidee 3rd (10961), at 2 years 8 months 22 days: 11.40 lbs. butter-fat, equivalent to 14.26 lbs. butter; 371.7 lbs. milk. Owned by A. C. Hardy.

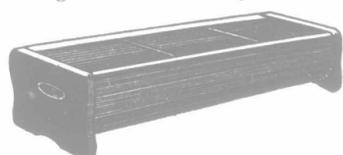
Inka De Kol Pietertje 3rd (9410), at 2 years 5 months 17 days: 10.08 lbs. butter-fat, equivalent to 12.60 lbs. butter; 268.1 lbs. milk. Owned by A. C. Hardy.

Orne Rooker Paul (9679), at 2 years 3 months 3 days: 9.47 lbs. butter-fat, equivalent to 11.83 lbs. butter; 338. lbs. milk. Owned by Samuel Dickie.—G. W. Clemons, Sec.-Treas.

# Send No Money Until You've Seen and Become Convinced this STEEL WATER TROUGH is Indispensable

Up-to-date farmers are replacing their unsanitary wooden water troughs with our sanitary STEEL WATER TROUGHS. You will do the same once you have become convinced of the superiority of our STEEL TROUGHS. So we ask you to mail us your name and address. Then we will send you one of our STEEL TROUGHS entirely at our expense. You don't pay us a cent until you are sure our STEEL TROUGH is simply indispensable to you. That's surely a square deal!

Our STEEL TROUGHS are the only absolutely sanitary water troughs. No corners or cracks for dirt to accumulate or germs to breed. Serious diseases, resulting in loss of cattle, are often caused from unsanitary conditions of wooden drinking troughs. Our troughs are made of heavy sheet steel, and extra heavily galvanized. Will not leak. Cannot rust. Nothing breakable. Nothing that will require repairs. Cattle cannot gnaw them. Practically everlasting. Shall we send our booklet giving full description? Better still, tell us to send the trough to you at our expense. Address: Dept. W.



The Steel Trough and Machine Co., Limited, Tweed, Ont.

## Fairview Herd

offers for sale a son of Rag Apple Korndyke. His dam is a daughter of Postiac Korndyke, with an A. R. O. record of 13.08 lbs. butter in 7 days at two years. Price, \$150.00.

E. H. Dollar, Heuvelton, N. Y. NEAR PRESBOTT.

## CENTRE AND HILLVIEW

Holsteins 148 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 granddam is: milk in 7 days, 462.85 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.

Glenwood Stock Farm—Holsteins and Yorkshires. Holsteins all sold out. Have a few young Yorkshires sows, about 2 months old, for sale cheap. True to type and first-class. Bred from imported stock. Thos. B. Carlaw & Son, Warkworth P.O., Ont. Campbellford Station.

## DISPERSION SALE

OF OVER

# 40 Head Holstein - Friesian Cattle

### AT MADOC, MARCH 25th, 1910,

Including the great bull, Sara Jewel Hengerveld's son, whose dam has an A. R. O. butter record: In 7 days, of 28.12 lbs.; in 30 days, of 110.18 lbs. The only cow in Canada that ever produced in official test 100 lbs. milk in one day. All females old enough are bred to this great bull, and by the time of the sale there should be 20 calves sired by him. Catalogues will be ready March 1. Positively no reserve. Sale will commence at 1:30 p. m. Stages connect with C. P. R. at Ivanhoe and C. O. R. at Eldorado, for Madoc, and will convey intending purchasers to the farm on day of sale. The G. T. R. runs into Madoc, and arrangements have been made for transportation to the farm. Cheap rates on all railways.

**J. A. Caskey, Madoc, Ont.**  
COL. D. L. PERRY, COLUMBUS, OHIO, AUCTIONEER.

## THE MAPLES HOLSTEIN HERD

of Record-of-Merit cows, headed by King Posch De Kol. Only two sons of our old Record-of-Merit stock bull, Lord Wayne Mechthilde Calamity, left for sale, from cows with good official backing; also a few bull and heifer calves sired by King Posch De Kol and from Record-of-Merit dams.

WALBURN RIVERS, FOLDEN'S, ONTARIO.

## Maple Glen HOLSTEINS

Would like to dispose of from 10 to 15 head of females inside of 30 days, before going to Alberta. Females range from heifers coming to 26 3/4 lbs. tested cows. A business proposition to the right man for entire herd. First come best served. G. A. GILROY, Glen Buell, Ont. Brookville Sta., G. T. or C. P. R. Long-distance phone.

## Lakeview Holsteins.

One service bull and several bull calves for sale, sired by Count Hengerveld Fayne De Kol, whose sire has five daughters averaging over 30 lbs. of butter in 7 days, and 120 lbs. for 30 days, and whose dam, the dam of Grace Fayne 2nd's Homestead, with 35.55 lbs. in 7 days, testing over 5% fat. These young bulls are from A. R. O. cows, an extra smooth and well marked lot. E. F. OSLER, BRONTE, ONT.

## IMPERIAL HOLSTEINS

Head your herd with a son of the champion Canadian butter-bred bull, Tidy Abbecker Mercena Posch. Dam and sire's dam average 28 lbs. butter in 7 days, 110 lbs. in 30 days; 4.90 fat.

W. H. SIMMONS, NEW DURHAM, ONT.

## High-class Holsteins—Head of herd, Pietje Korndyke Lad. Two nearest dams average 26.09 lbs. butter in 7 days. His sire's dam, Pietje 22nd, has a record of 31.62 lbs. butter in 7 days. Present offering: now booking orders for bull calves sired by above sire and out of A. R. O. dams.

W. M. C. STEVENS, PHILLIPSVILLE, ONT.

## Lawncrest Holsteins

or come and see us. Good railway connection. Long-distance phone.

## W. F. R. MALLORY, FRANKFORD, ONT.

## WOODBINE STOCK FARM

Offer a number of Holstein cows, heifers and young bulls at moderate prices, sired by Sir Creamelle, whose breeding combines the blood of DeKol Creamelle, world's champion milk cow, with that of Duchess Ormsby, highest testing family of the breed. Write for anything you want. Telephone connection.

A. KENNEDY, Ayr, Ont.

## STILL GREATER!

Grace Fayne 2nd Girl just completed a test of over 30 lbs. butter in 7 days, dam Grace Fayne 2nd is also dam of Grace Fayne 2nd Homestead, world's record, 35.55 lbs.; and Grace Fayne 2nd Sir Colantha, who heads the Homestead herd; sire's dam, Colantha 4th Johanna, 35.22 lbs. Young stock for sale. M. L. & M. H. HALEY, Springford, Ont.

## Ridgedale Holsteins

I have left three bull calves that will be priced right for quick sale; their dams are heavy producers, and their sire was bred right.

R. W. WALKER, Utica, Ont. Phone connection.

Please Remember to Mention "The Farmer's Advocate" When Writing

QUESTIONS AND ANSWERS.  
Miscellaneous.

UMBILICAL HERNIA.

I have a filly that will be a year old the 18th of April. She has a little rupture about an inch, front of navel. What would be advisable as a cure?

J. H. H.

Ans.—In most cases, nature effects a cure of this class of rupture in colts, the opening in the rim gradually closing, so that, unless it seems to be increasing, it may be well to give it time before treating. If it grows worse, it will be advisable to apply a truss, which consists of a bandage four to six inches wide, with an elevation of about half the size of a baseball on it, applied so that the elevation presses upon the rupture, and keeps it pressed up into the abdomen. The bandage must be carefully arranged to keep it in place and prevent its moving backward or forward. Where such treatment is of no avail, a skilled veterinarian may operate.

SCHOOL TRUSTEE BECOMING NON-RESIDENT.

Am now writing to you in regard to the following question, which was answered in your issue of February 3rd, and was not answered according to the School Act. Please answer again.

A was living in S. S. No. 4, and was elected School Trustee in S. S. No. 4; then he moved across sideroad into S. S. No. 3, but is still a ratepayer of S. S. No. 4. A still owns land in S. S. No. 3 and S. S. No. 4. Is he a legal Trustee for S. S. No. 4? A. B. C.

Ans.—We still think our answer to this question, as it appears in the February 3rd issue of "The Farmer's Advocate," correct, and quite in harmony with the provisions of the Public Schools Act, and of the Municipal Act, and would say, that by his change of residence, the Trustee has become disqualified to act as such.

MARE LOSING MILK.

Please inform me what is the cause of the milk running from a mare's teats; it only happens once in a while, and then for a day or two at a time. The mare is in foal, but her time will not be up until next July. The mare had a foal last summer, but it only lived three days. The milk ran from the mare for about six weeks before foaling. The colt did not seem to suffer. W. S.

Ans.—A mare from which milk escapes for considerable time before foaling, is likely to produce a weak foal. No satisfactory explanation of the cause is available. The best advice we can give is to let the mare have regular exercise, and pay particular attention to the foal when born, if it is weak. Help it up if necessary, and assist it to nurse. See that it gets a little nourishment every hour until it gets strength enough to help itself. Have a bottle of solution of corrosive sublimate on hand, 15 grains to 8 ounces of water, and dress the foal's navel with it as soon as possible after birth, and four or five times daily until it is healed. This tends to prevent joint ill. Oil the forefinger and insert it carefully into the rectum and remove the meconium (the feces present at birth), then give an injection of warm raw linseed oil. Do this four times daily until feces become yellow. Do not give purgatives.

TRADE TOPIC.

The Planet Jr. farm and garden tools have made for themselves an enviable reputation. For instance, the No. 6 Planet Jr., the newest combination hill and drill seeder, wheel hoe, cultivator and plow, does the work of six men, and is at once light and strong. This handy garden tool opens the furrow, sows any kind of garden seed accurately in drills or hills, covers, rolls down, and marks out the next row—all at one operation. In addition to this, it is also a perfect wheel-hoe, cultivator and plow. This ought to be an object lesson to every tiller of the soil as a labor-saving and efficient implement, and yet it is only one example of the 55 kinds of Planet Jr. tools. See the advertisement in this paper of S. L. Allen & Co., Philadelphia, Pa., and write them for their illustrated catalogue, which is sent free on request.

HEALTH--STRENGTH--ENERGY

YOU CAN HAVE THEM ALL



If you want to get up in the world and make your mark; if you want to be pointed at as a successful man; if you want to be a Man among men, you must be full of electricity—magnetism.

Brooding over your troubles—spending hours and hours regretting your past follies and mistakes—despairing of help, will not add to your capital of nerve power—will not help you down the shadows and get you into the sunshine of happiness and success.

You aren't the only fellow after the plums—the high places. Thousands are in the strife, and the prizes go to the wide-awake—the men of courage and energy.

You Have Heard It Said That Opportunity Knocks But Once in a Lifetime.

The fact is, she makes several calls, but she doesn't come with a brass band to wake you up.

Nature carved you in the image of a man: a man you can be, as I can show you the way.

If you have fallen by the wayside; if you have succumbed to temptation and folly; if you have exhausted your vitality through excesses, overwork or worry, use your God-given brains and judgment for a few moments.

Take an inventory of yourself. Seek the truth. Study your weakness. Don't further wreck your nervous system and befuddle your brains with drugs, stimulants, but use that great, wondrous power, ELECTRICITY, as I apply it with

Dr. McLaughlin's Electric Belt

I can point to hundreds of men to-day who came to me broken in health and spirit—absolute physical wrecks, hopeless, despondent, who followed my advice, used my Belt, regained their strength and vitality, and are now getting on in the world. Many of them say that my Belt saved their lives.

Mrs. A. E. McLeod, 697 Francis St., Woodstock, Ont., writes: "Dear Sir,—I had intended to write to you before and let you know how I have been. I cannot praise your Belt too highly, as I certainly have enjoyed life these last three months. My nerves have settled down and my stomach is almost cured. I can eat things now of which I never could take for over two years, and am weighing the best I have for two and one-half years. I have not felt a particle of womb trouble for over

a couple of months, so I feel I am almost cured."

"Dear Sir,—I feel quite a new man. My nervousness is completely gone. From the first night I wore your Belt I felt the change, for which I thank you. No more medicines for me; I have done with them. If I had known more about your Belt before, I would have been a happy man."—Mr. W. Robinson, No. 443 Boyd Ave., Winnipeg, Man.

Another man, Mr. P. W. McNeill, Colborne, Ont., says: "Dear Sir,—I got one of your Belts some time ago for a sore back, which was very painful and prevented me from stooping, so at times I could hardly tie my shoes. Your Belt strengthened my back and took the pain and soreness away entirely. I would not take \$100 for it, and if I could not get another I would not part with it at any price. I can recommend your Belt as a complete cure to all afflicted with this trouble."

My Belt, with special Electrical attachment, will restore your vigor. It will check all loss of vitality and strengthen every organ of the body. It cures Nervous Debility, Varicocele, Rheumatism, Lame Back, Lumbago, Sciatica, any case of Kidney Disease that has not gone as far as Bright's Disease, Stomach Trouble, Constipation. If you haven't confidence in electricity, let me treat you at my risk. I will send 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

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FREE

Book for Men

Get my 80-page book describing my treatment, and with illustrations of fully-developed men and women, showing how it is applied.

This book tells in plain language many things you want to know and gives you a lot of good, wholesome advice for men. I'll send the book, in plain wrapper, prepaid, free, if you will enclose this coupon.

I want to convince every sufferer that he can get benefit from my treatment. Nobody should be without it, for it is cheap enough, far cheaper than a course of doctoring, and I want everyone to try it. Let every sufferer who can do so call at my office and make a full test of my battery free of any charge.

If you can't call, send this coupon for my book.

DR. M. S. McLAUGHLIN,  
112 Yonge St., Toronto, Can.

Gentlemen: Please send me, prepaid, your Free Book.

NAME .....

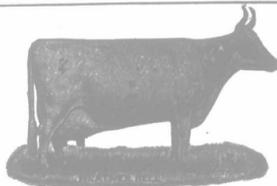
ADDRESS .....

Office Hours, 9 a.m. to 6 p.m. Wednesday and Saturday until 8.30 p.m.

Burnside Ayrshires

Having disposed of my 1909 importation, I intend leaving about March 1st for another lot. I expect to have a number of bulls through quarantine by first week of June. Orders entrusted to me will be carefully attended. We have a few young bulls fit for service on hand of choice breeding, and females of all ages. Phone, etc.

R. R. Ness, Burnside Stock Farm, Howick, Que.



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 1910. A few young Yorkshires. Write us for anything you need in above lines.

ALEX. HUME & CO., MENIE, ONT.

Stonehouse Ayrshires

Hector Gordon, Howick, Quebec.

ISALEIGH GRANGE AYRSHIRES!

Our herd were all selected on their ability to produce a heavy yield of milk. We have a number of 40, 45 and 50 lb. cows, imported and Canadian-bred. From them are young bulls and heifers for sale. None better. JAMES BODEN, DANVILLE, QUEBEC, ISALEIGH GRANGE FARM.

CRAIGIE LEE Have won more money the last 4 years than all competitors combined, they are heavy producers and high testers. Stock of both sexes for sale, of show-ring form.

H. C. HAMILL, Box Grove P.O. Markham, G. T. R. Locust Hill, C. P. R. Bell phone connection from Markham.

Shannon Bank Ayrshires and Yorkshires. Am now offering young bulls and heifers, true to type and high in quality. Young Yorkshires of both sexes.

W. H. Tran & Son, Locust Hill P.O. & Sta., Ont.

Ayrshires from a Prizewinning Herd—Have some nice bull and heifer calves for sale at reasonable prices. For particulars, etc., write to WM. STEWART & SON, Campbellford Stn. Menie P. O., Ont.

HILLCREST AYRSHIRES.—Bred for production and large teats. Record of Performance work a specialty. Fifty head to select from. Prices right.

FRANK HARRIS, Mount Elgin, Ont.

Ayrshires—Four young bulls, all bred on dairy lines, out of famous dams; fashionable in color, as well as in breeding. Will be sold worth the money. Females all ages.

N. DYMENT, Clappison's Corners, Ont.

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

## DR. WOOD'S NORWAY PINE SYRUP.

Is Specially Calculated To Cure All Diseases of the Throat and Lungs.

Coughs, Colds, Bronchitis, Sore Throat, Hoarseness, Croup, Pain or Tightness in the Chest; and all Bronchial Troubles yield quickly to the curative powers of this prince of pectoral remedies. It contains all the virtues of the world famous Norway pine tree, combined with Wild Cherry Bark, and the soothing, healing and expectorant properties of other excellent herbs and barks.

Mrs. John Pelech, Windsor, Ontario, writes:—"I was troubled with a nasty hacking cough for the past six months and used a lot of different remedies but they did me no good. At last I was advised by a friend to try Dr. Wood's Norway Pine Syrup and with the first few doses I found great relief and to-day my hacking cough has entirely disappeared and I am never without Dr. Wood's Norway Pine Syrup in the house."

The price of Dr. Wood's Norway Pine Syrup is 25 cents per bottle. It is put up in a yellow wrapper, three pine trees the trade mark, so be sure and accept none of the many substitutes of the original "Norway Pine Syrup."

Manufactured only by The T. Milburn Co., Limited, Toronto, Ont.

## ELECTRO BALM CURES ECZEMA

Also Piles, Burns, Scalds, Sores, Chapped Hands and Face. Write for sample and booklet of testimonials. 50c. a box at all dealers, or THE ELECTRIC BEAN CHEMICAL CO. LIMITED, OTTAWA.

**Oxford Down Sheep, Shorthorn Cattle, Yorkshire Hogs.**—Present offering: Lambs of either sex. For prices, etc., write to **John Cousins & Sons, Buena Vista Farm, Harriston, Ont.**

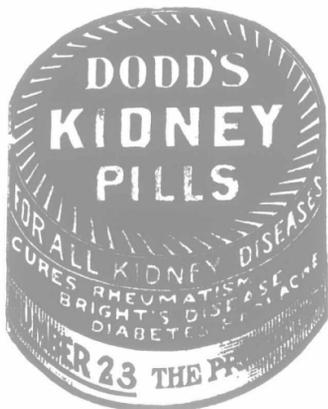
### Willowdale Berkshires!

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.**

DO WE SEE OUR WIVES AS OTHERS SEE 'EM?

First Straphanger (in a whisper)—"Why did you give that woman your seat? She isn't bundle-laden, tired, or pretty, or even polite."

Second Straphanger—"Well—er—you see—she is my wife."—Harvard Lampoon.



### QUESTIONS AND ANSWERS. Miscellaneous.

#### LICE ON COLT.

As I am a subscriber to your paper, I would like to see a prescription for killing lice on colts. F. A. S.

Ans.—Try insect powder (pyrethrum) one part to three or four of dry cement. Dust along the back, working it into the hair, and keep him dry till mixture has settled down to his flanks and suffocated the lice.

#### SOWING CLOVER ON PASTURE.

Can you give me any information regarding the sowing of clover seed on old pasture land in spring of year? It has been a question in my mind as to how it would do. If it would work, it would be a boon to the pasture later on in the season. A. J. M. Middlesex Co.

Ans.—Sowing clover on old pastures for the sake of renewing them, is practiced by some. If grass has been killed out considerably, and ground is bare, the seed might, with success, be sown on the surface, when frost is going out in March, but usually it would be well to give a light disking before sowing, to be followed after by a light harrowing. The earlier that clover seed can be sown after spring opens, the better chance there is of a catch.

#### EGG-EATING.

What will stop hens eating eggs? Our hens are fed mixed grain (peas, oats and barley) in the morning and evening, and a potato mash at noon, and have gravel and ashes before them all the time, and, unless we get them when laid, they eat them.

Ans.—Feed your hens meat, green cut bone, and lime in the form of oyster shells, the latter kept constantly before them. Now that the trouble has commenced, you will have difficulty in stopping it. Dark nests, approached by the hens through a passage between nests and wall, will help to break the habit. Another scheme occasioning some trouble, but pretty effective, is to construct nests with sloping bottoms, along which the eggs will roll gently to a receptacle underneath, out of reach of the hen. Prevention is the great thing, though. Had you been feeding meat, bone and lime, and keeping the hens busy, they would not have been so likely to contract the habit.

#### BUCKWHEAT BEFORE WHEAT— SIZE OF SILO—HORSE- BREEDING.

1. Can I plow down two crops of buckwheat in time to sow fall wheat? What time would I need to sow the first crop? Would the first crop heat and spoil the seed of the second crop?

2. What size of a round silo would I require to contain feed for ten cattle twice a day for five months? Also what material would be required?

3. Have a mare that has been bred twice to an imported Clydesdale horse, but did not get very good colts. The mare is well bred on both sides, being from a heavy horse and a light mare. Am thinking of breeding her to a Hackney. Would a good-sized trotting horse be better to raise a driver from? Mare weighs about 1,100 lbs., and is a fair traveller.

4. Also have a nice chunk of a mare, rising three years, which I intend to breed. She being of heavy kind, should I breed her to a heavy or light horse? Huron Co., Ont. J. S.

Ans.—1. One crop of buckwheat would be enough to attempt to grow and plow under before sowing fall wheat. To try for two crops would, in all likelihood, be to lose.

2. Ten cattle, each getting 40 pounds of silage per day (quite plenty), for five months, would consume 60,000 lbs. A silo of 9 feet diameter inside, filled to a depth of 23 or 24 feet with settled silage, would contain that quantity. Material required for such a silo, 28 feet high, with good foundation, and wall of an average thickness of six inches above ground, would be, roughly, about four cords gravel and twenty barrels of cement.

3. As a driver is wanted, a trotting stallion, if of good size and conformation, would be preferable.

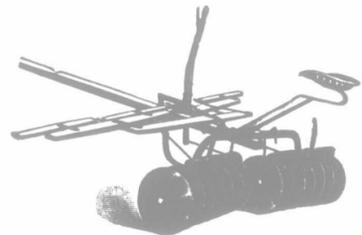
4. A heavy horse would be better in this case.

## The "BISSELL" is the lightest-draft harrow

Because of its astonishingly light draft, time after time the "Bissell" Disk Harrow, in field competition, has done DOUBLE the work its competitors have accomplished under the same conditions. The special shape of the "Bissell" Plates allows them to enter the ground easier and turn the soil with less effort. Steel blades, meeting the plates "chisel-fashion," keep the plates thoroughly clean. The space between the plates is kept clear of trash by movable clod-irons—the only Harrow that has this feature. Sand bands protect the ball-bearings from dust. The seat is placed back of the Harrow. In this way the weight of the driver rests over the frame, and large weight is removed. The hitch is well back, which is still another draft-reducing feature. Search the

continent over, and you'll not find a Harrow of such light draft and correct proportions as the "Bissell."

For further particulars write Dept. W for catalogue, or see your local dealer.



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

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 Clydesdale mares, and a few beautiful Welsh ponies will also be priced at attractive figures. **Robert Miller, Steuffville, Ontario**

#### 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. Bears fit for service. Sows ready to breed. A high-class lot. Satisfaction assured.

**J. A. CRESWELL, BOND HEAD P. O., ONT., BRADFORD or BEETON STAS.**

#### FARNHAM OXFORD DOWNS.

The Champion Flock, The Oldest Importers, The Largest Breeders in America. See American Oxford Down Record. We are offering a number of first-class yearling ewes from imported sires, and bred to champion imported ram; also a number of ram and ewe lambs. Prices reasonable. **HENRY ARKELL & SON, Arkell, Ont. Arkell, C. P. R.; Guelph G. T. R. and Telegraph.** When Writing Mention The Advocate

#### LABFLS

Metal Ear Labels for Cattle, Sheep and Hogs.

The old standby for all who have stock liable to stray, or to dispute as to identification or ownership; for herd or flock records, or for general convenience. Do not be without them. Send your name and address for free circular and sample. It is no trouble, and may save you much. Write today. **F. G. JAMES, BOWMANVILLE, ONTARIO.**

## CHESTER WHITE SWINE FOR SALE

100 to choose from. I have several litters from Ohio Chief, my latest importation, a magnificent boar of the long improved bacon type; also a number of litters from other choice boars, and my sows cannot be beaten. I import only the best.

**J. H. M. Parker, Lennoxville, Quebec.**  
"Willowdale Stock Farm."

#### Large White Yorkshires

An offering at the present time a fine lot of young sows, bred to farrow during Mar. and Apr. Also young pigs, both sexes, from 2 to 4 months old. Pairs supplied not akin. Write or call on

**H. J. DAVIS, WOODSTOCK, ONT.**  
Long-distance Bell phone. C. P. R., G. T. R. main lines

#### 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.**

#### Improved CHESTER WHITES

Young sows of breeding age. Some already bred. Also choice young pigs of both sexes, 6 to 8 weeks old. Joe No. 5629, first-prize boar at Toronto and London, 1909, at head of herd. Also two grand young Jersey bulls. **Chas. E. Rogers, Thames Valley Farm, Dorchester, Ont.**

**Tamworths** A grand lot of young boars from 2 to 4 mos., also young sows (dandies). Some just bred. Some in farrow to first-class boars from best herd in England. Prices reasonable. **Chas. Currie, Morrisston, Ont.**

#### 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, HARVICH, ONT.**

#### PINE GROVE YORKSHIRES

At the late Guelph Winter Show we won more prizes than any two exhibitors, including all the firsts and sweepstakes for best dressed carcasses, both at Guelph and all the progeny of imported stock of superior excellence. **Joseph Featherston & Son, Streetsville, Ont.**

#### PINE GROVE BERKSHIRES!

Sows bred and ready to breed. Nice things, three and four months old.

**W. W. BROWNIDGE, Milton, C. P. R. Ashgrove, Ont. Georgetown, G. T. R.**

#### Hilton Stock Farm

Present offering: 6 yearling heifers and several younger ones. All very choice. Of Tamworths, pigs of all ages and both sexes, pairs not akin. **R. O. MORROW & SON, Hilton, Ont.** Brighton Tel. and Stn.

**FARMERS, FRUIT, AND VEGETABLE GROWERS**



WHY ARE YOU IMPORTING PHOSPHATE AND AMMONIA WHICH IS A BY-PRODUCT OFF YOUR FARMS OF WHICH YOU ARE EXPORTING MANY THOUSAND TONS ANNUALLY BONES AND WHICH CONTAIN LARGE QUANTITIES OF PHOSPHORIC ACID AND AMMONIA

KINDLY ANSWER THE ABOVE

PURE BONE MEAL IS THE CHEAPEST **FERTILIZER**. THIS PLANT FOOD IS ALL FROM OUR CANADIAN SOILS AND SHOULD ALL GO BACK SEND FOR PRICES ETC.

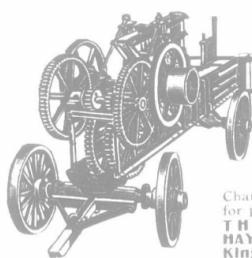
THE **W.A. FREEMAN CO.** LIMITED  
HAMILTON, CANADA

**3 1/2 %**

You might better place your savings here where they will earn 3 1/2% instead of 3%. Security, \$2,000,000 assets.

**AGRICULTURAL SAVINGS & LOAN CO.,**  
109 DUNDAS STREET,  
LONDON, ONTARIO.

**The Columbia Hay Press**  
BAILED 68 TONS IN 10 HOURS.



It has the points that sell: Automatic Self Feeder, Automatic Safety Fly Wheel, Handiest Block-dropper, Double Gear through-out, Extra Long Tying Chamber, etc. Write for prices.

**THE COLUMBIA HAY PRESS CO.,**  
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To All Women: I will send free, with full instructions, my home treatment which positively cures Leucorrhoea, Ulceration, Displacements, Falling of the Womb, Painful or Irregular Periods, Uterine and Ovarian Tumors or growths, also Hot Flashes, Nervousness, Melancholy, Pains in the Head, Back, Bowels, Kidney and Bladder troubles where caused by weakness peculiar to our sex. You can continue treatment at home at a cost of only about 12 cents a week. My book, "Woman's Own Medical Adviser," also sent free on request. Write to-day. Address Miss M. Summers, Box 821 Windsor, Ont.

**CHURCH BELLS**  
CHIMES AND PEALS  
MEMORIAL BELLS A SPECIALTY  
FULLY WARRANTED  
McSHANE BELL FOUNDRY CO.,  
BALTIMORE, Md., U. S. A.  
Established 1866



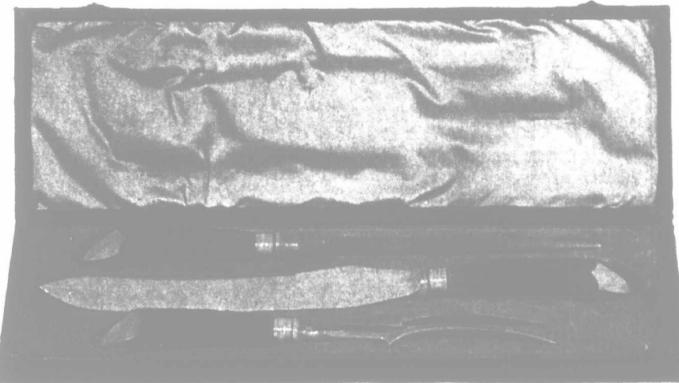
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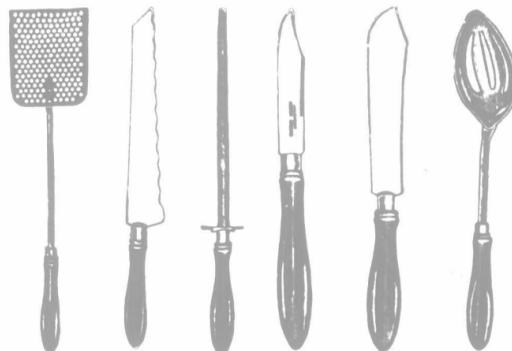
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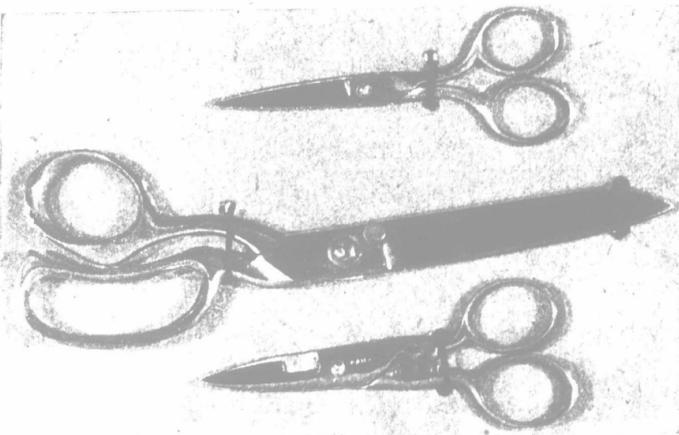


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**saves farmers money**  
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THESE culverts of mine are a great thing for the farming world. They not only make good roads possible, but they serve the farmer in many other ways. And they are so simply laid. They come nested like this:



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And you've got a piping that will outlast anything of the kind there is. Better get the book and sample and study it.

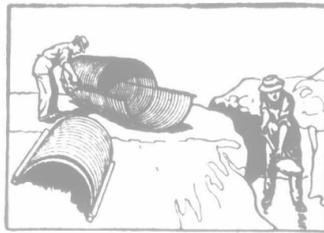
*G. H. Pedlar*

GET your township reeve or warden to study Pedlar Culverts. Send for the Free Book and show him why this Culvert surpasses for all ditch drainage, for restraining small streams, for every use that any culvert can serve. You will profit through lowered taxes, better roads and abolished washouts. Send for the book and interest your township's officials. You will benefit by what they will learn.

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Pedlar Culvert is made, in every standard size from 8 to 72 inches diameter, of Special Billet Iron of the best quality, in extra heavy gauge. This Billet Iron is curved into semi-cylinders curved while cold, so the sizes never vary a fraction. These half-cylinders are then corrugated by a pressure of sixty tons to the square inch. After being corrugated, the whole surface and each edge is heavily galvanized and made positively rust-proof.



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## PEDLAR CULVERT

is made in Nestable Sections from the Best Billet Iron, heavily galvanized and deeply corrugated.

It is the simplest kind of work to put these half-sections of Pedlar Culvert together permanently. One half-cylinder is placed on another, and the flange-rib on each side is rigidly compressed flat by the huge pressure exerted by a simple but effective tool. No bolts, no rivets, no makeshifts—but a triple-thick locking rib-flange that gives Pedlar Culvert immense strength. Thus it will stand crushing strains that would destroy any other piping.

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