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THE FARMER'S ADVOCATE

AND HOME MAGAZINE

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

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VOL. XLV.

LONDON, ONTARIO, FEBRUARY 10, 1910.

No. 907



"THE EEL" 2:02 1/2

Makes Each Animal Worth 25 per cent. Over Its Cost



At a cost of only two-thirds of a cent a day per Animal, Royal Purple Stock Specific makes each Animal worth 25 per cent. more.

You never heard of any other Specific, or "Stock Food," doing likewise.

Royal Purple will permanently cure the Bots, Colic, Worms, Skin Diseases and Debility, and restore run-down Animals to plumpness and vigor.

It will increase the milk-yield three to five pounds per cow a day inside of from two to three weeks. It makes the milk richer than ever before.

MR. ANDREW WEGRICH, of Wainflett, Ont., says: "This is to certify that I have tried your Royal Purple Stock Specific for two weeks, on one cow. On the 16th I weighed her milk as 17 pounds. I noticed a change after 5 or 6 days, as there was an extra weight of milk. On the 29th, I carefully weighed the milk, and she gave 22 pounds. I am giving an order for 5 boxes, as I consider it the best I have ever used."

"Stock Food" will not do this. Because "Stock Food" is nothing more or less than a mixture of the very things which you, yourself, grow on your own farm.

It is not more food your Animals need. They must have something to help their bodies get all the nourishment from the food they are getting. So that they will fatten, and stay fat, all the year 'round.

They need something to prevent disease, to cure disease, and to keep them in the best of health, all the time.

Not a Stock Food

Royal Purple is not a "Stock Food," nor a "medicine." It is a Conditioner.

It does not contain Grain, nor farm products. Nor does it contain "Dope," or any other injurious ingredient. Royal Purple does not merely temporarily bloat or inspire the Animal. It fattens and strengthens it, permanently.



No other Specific known adds flesh so quickly as Royal Purple. It makes 6-weeks-old Calves as large as ordinary-fed Calves are at 10 weeks.

Royal Purple makes naturally-thin Animals fat and heavy. And it builds up the health and restores the former plumpness and vigor of run-down stock, in little or no time.

The very best time to use this Conditioner is NOW. It digests the hard food properly and prevents the animals getting indigestion or losing flesh.

50 per cent. Cheaper

One 50-cent Package of Royal Purple will last one Animal 70 days. This figures a little over two-thirds of a cent per day.

Most "Stock Foods" in 50-cent Packages last but 50 days, and are given three times a day.

But Royal Purple Specific is given only once a day, and lasts 50 per cent. longer. (A \$1.50 Pall, containing four times the amount of the 50-cent Package, lasts 280 days.)

Royal Purple

STOCK AND POULTRY SPECIFICS

So, you see, it is only necessary to give Royal Purple Specific once each day.

Just think of making each Animal worth 25 per cent. over its cost! What will that mean to you, Mr. Stock Owner!

Royal Purple creates an appetite for food, and helps nature to digest and turn it into flesh and muscle.

As a Hog fattener, Royal Purple has no equal.

Never Off Feed

Dan McEwen, the horseman, says:

"I have used Royal Purple Stock Specific persistently in feeding 'The Eel,' 2.02 1/2, largest winner of any pacer on Grand Circuit in 1908 and 1909, and 'Henry Winters,' trial 2.09 1/2, brother of 'Allen Winters,' winner of \$36,000 in trotting stakes in 1908.

"These horses have never been off their feed since I started using Royal Purple

Specific. I will always have it in my stables."

For Poultry

Royal Purple Poultry Specific is our other Specific. It is for Poultry—not for stock.

It makes the Hens lay Eggs in Winter as well as in the Summer.

MRS. WM. BURNHAM, Sanford, Ont., says: "Dear Sirs,—This is to certify that I have used two boxes of your Poultry Specific for my hens. They laid so well while feeding it to them, I wondered if you would mind sending me word how or where I could get some this winter. I bought it from your agent last winter. I had 82 hens, and some days I got two dozen eggs a day in February and March, while feeding them the Specific."

Royal Purple Poultry Specific prevents Fowls losing flesh at moulting time, and permanently cures every poultry disease. It makes their plumage bright and keeps them always in prime condition.

It makes your Poultry worth more than they could ever be without it.

Yet one 50-cent Package will last 25 Hens 70 days. Or a \$1.50 Pall will do 25 Hens 280 days. This is four times more material at only three times the cost.

Make This Test

Every ounce of Royal Purple Stock and Poultry Specific is guaranteed.

To prove that Royal Purple has no equal, we want you to make this test:

Feed Royal Purple to any one of your Animals for four weeks. And at the same time feed any other preparation to any other Animal in the same condition.

If Royal Purple does not prove to you, by actual results, that it is the best you ever used, we'll return your money.

And we'll ask no questions—make no excuses. You will be the judge—not us.

This is an honest test, isn't it? We ask you to make it because we know that Royal Purple is the best Conditioner on the market.

If you are not satisfied, after testing it, you don't lose anything, do you?

Free Book on Diseases

Ask your dealer for our 32-page Free Book on Cattle and Poultry Diseases.

This valuable little Book also contains many cooking recipes, as well as full details about Royal Purple Stock and Poultry Specifics.

It is worth many, many dollars to every owner of Stock or Poultry. Yet it costs you nothing. It ought to be in the home of every Stock and Poultry owner in Canada.

It gives the symptoms of all Animal and Poultry diseases, and tells the best drugs to be used in cases of emergency.

If your dealer cannot give you this book, write us, and we'll promptly mail it to you, Free, postpaid.

If your dealer cannot supply you with Royal Purple Stock and Poultry Specifics, we will supply you direct, express prepaid, upon receipt \$1.50 a Pall for either Poultry or Stock Specifics.

Agents Make Money

We have hundreds of hustling men earning big money in spare time supplying Royal Purple Stock and Poultry Specifics.

If we haven't a man in your district handling our goods, write us at once.

Everybody knows about Royal Purple Stock and Poultry Specifics.

You won't have to do any running around or talking. We do that for you.

We spend many thousands of dollars in advertising, to help our agents.

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This is a good job for any farmer or farmer's son, with horse and rig, for fall and winter months. No experience needed. We lay out your work for you.

Write us a letter now, and just address us:

The W. A. Jenkins Mfg Co.
London, Ontario.

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Whether you want a Machine-made or a Field-built Fence, you cannot find equals to the Frost.

We'll send you a free booklet, describing in detail the Frost Woven and the Frost Field-built Fences.

We have figured out the real reason why so many Wire Fences in Canada rust about 12 or 15 years sooner than they should.

And we have also figured out the only method of Wire-making to overcome this vital weakness.

So we now Make and Galvanize our own Wire. No other exclusive Fence Maker in Canada does that.

Two-thirds of the life of a Wire Fence depends upon its Galvanizing. Yet in the very face of this, nearly every Fence made in Canada is Galvanized too thinly.

One reason is because Zinc costs four times more than wire.



The other that if most Galvanized Fence were thicker, that would peel off.

Because Galvanizing here permanent, easy, that scale is certain to chip off, and with it goes Mr. Galvanizing.

The Frost Fence is double Galvanized—not merely "coated." But it will not peel off. Because Frost Galvanizing is a part of the Wire itself.

You see, Frost Wire goes through three thorough "Cleansing" processes before it ever goes near a Galvanizing Furnace.

This positively removes every bit of grease and scale, and leaves the surface clean.

This double Galvanizing will endure the severest Canadian weather changes. It will fight off rust for 25 or 30 years.

The Frost Fence can be safely stretched tighter than any other Fence we know of.

reason is heavy Galvanizing cannot adhere to scaly Wire.

Because Frost Wire is Annealed to the proper degree of temper. This makes it more elastic, and stronger, than any Fence in Canada.

But because the "Frost" degree of temper is a secret, no other Wire in Canada is tempered to withstand Canadian conditions.

That's why the Frost Fence is the strongest. We are anxious to prove this.

We are anxious to send you our free booklet on Fence, together with samples of the Frost Fence and Locks, postpaid.

This booklet tells all about Fence, and shows you how to buy the right kind for Canadian purposes. It's worth a lot of money to you. Send for it to-day.

The Frost Wire Fence Co., Limited.

Hamilton, Ontario.

Agents Wanted

"Frost" Fence

DO YOU KNOW

THAT WORN-OUT LANDS MAY BE MADE PRODUCTIVE AND PROFITABLE BY THE JUDICIOUS USE OF THE RIGHT KIND OF FERTILIZER?

NOW IF YOU HAVE A PIECE OF LAND THAT WON'T GROW ANYTHING BUT WEEDS, TALK WITH US ABOUT IT AND LET US SUGGEST THE RIGHT FERTILIZER.

WE FEEL VERY SURE THAT WE CAN SHOW YOU HOW TO USE FERTILIZERS WITHOUT GREAT EXPENSE, SO YOUR LAND WILL PAY CONSULT US FREELY IT IS OUR BUSINESS TO KNOW ENQUIRIES FREELY ANSWERED AGENTS WANTED FOR TERRITORY NOT TAKEN UP

W.A. FREEMAN CO. LIMITED
HAMILTON, ONTARIO



Synopsis of Canadian North-west Land Regulations.

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

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

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

A homesteader who has exhausted his homestead right, and cannot obtain a pre-emption, may take a purchased homestead in certain districts. Price, \$3.00 per acre. Duties—Must reside six months in each of three years, cultivate fifty acres, and erect a house worth \$300.

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

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A perfect engine for pumping, grinding, sawing wood, corn shelling, churning, washing machines and all farming purposes. Larger sizes for feed cutting, threshing, silo filling, and all heavy farm work.

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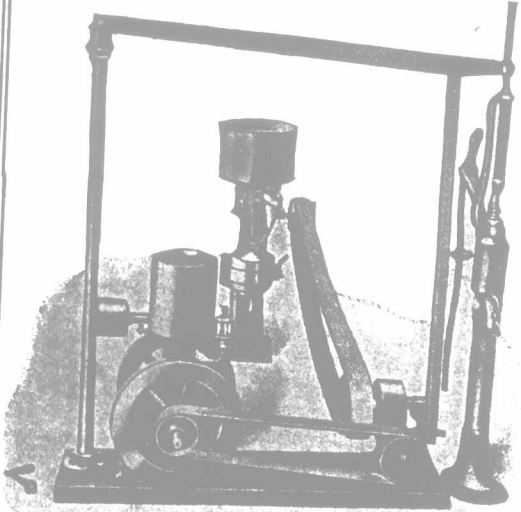
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Grain, Stock and Farm Equipment are the sole in Ontario, selected with care. The only agent in the Province and we have the very best prices for sale and hire.

THE LLOYD TRUST COMPANY, LTD.
Real Estate Dept.
127-176 Bay St., Toronto, Ont.

IDEAL GASOLINE ENGINES

1 1/2 TO 40 HORSE-POWER.



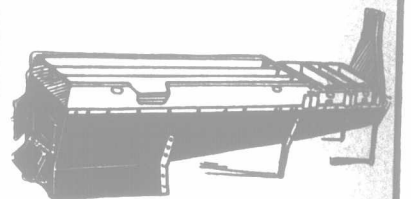
Windmills,
Grain Grinders,
Pumps,
Tanks,
Water Boxes,
Concrete Mixers,
Etc., Etc.

Send for catalogue.

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

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When you secure a loan on your farm or city property from this company there is no charge for land inspection. Renewals of maturing loans made free of cost. The interest charged is always at the lowest current rate. The terms of repayment are made to suit your convenience. Write for application forms. Privacy our chief consideration.

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The amount of butter you get out of your cream, depends much on the kind of churn you use.

There are more "FAVORITE" Churns used in Canada than any other. Because the farmers and dairymen know that the "FAVORITE" is best, and they won't use any other. Foot tread and hand lever—8 sizes.

Our new "CHAMPION" is the champion of all washing machines. Hasiest, quickest hand washer ever made. Write us if your dealer does not have them.

DAVID MAXWELL & SONS, - ST. MARY'S, ONT.

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 far a produce at prices unequalled anywhere.

Cochrane the terminus of the T. & N. O. Ry. on the G. I. P. trans-continental 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.

Parties interested in Cattle Stanchions will do well to write for prices and information on

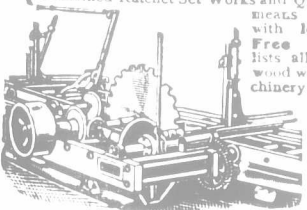
Rush's Patented U-Bar Steel Swinging Cattle Stanchions and Iron Frame for Stabling, I Beams for Posts, Etc.

Stanchions better than ever. Write and see.

A. M. RUSH,
King St., Preston, Ont., Can.

Make With An American Money SAW MILL

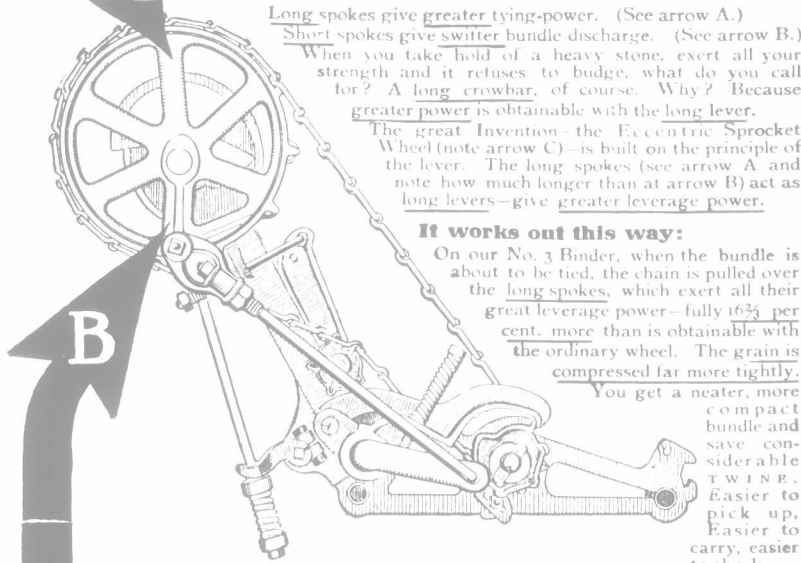
Lumber is high. A car load or two pays for an American Mill. Supply your needs and your neighbors'. No experience needed. Haul mill to timber if desired. All Sizes—All Prices. The Variable Friction Feed, Combined Katchet Set Works and Quick Re-elder breaks most work with least power. Free Catalogue lists all kinds of wood working machinery. Ask for it.



American Saw Mill Machinery Co.
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Hackettstown, N.J.
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When Writing Mention The Advocate

READ ABOUT THE GREAT INVENTION THE ECCENTRIC SPROCKET WHEEL



Long spokes give greater tying-power. (See arrow A.)

Short spokes give swifter bundle discharge. (See arrow B.) When you take hold of a heavy stone, exert all your strength and it refuses to budge, what do you call for? A long crowbar, of course. Why? Because greater power is obtainable with the long lever.

The great invention—the Eccentric Sprocket Wheel (note arrow C)—is built on the principle of the lever. The long spokes (see arrow A and note how much longer than at arrow B) act as long levers—give greater leverage power.

It works out this way:

On our No. 3 Binder, when the bundle is about to be tied, the chain is pulled over the long spokes, which exert all their great leverage power—fully 16 2/3 per cent. more than is obtainable with the ordinary wheel. The grain is compressed far more tightly.

You get a neater, more compact bundle and save considerable SWINE. Easier to pick up. Easier to carry, easier to shock.

Immediately after our Knotter ties the bundle, the chain is pulled over the short spokes (see arrow B and note difference in length of spoke as compared with arrow A). The shorter spokes greatly increase the speed of the chain. The bundle is given a swifter discharge than with ordinary wheel, and the needle is speedily brought back, out of the way of the downcoming grain, into position for the next sheaf.

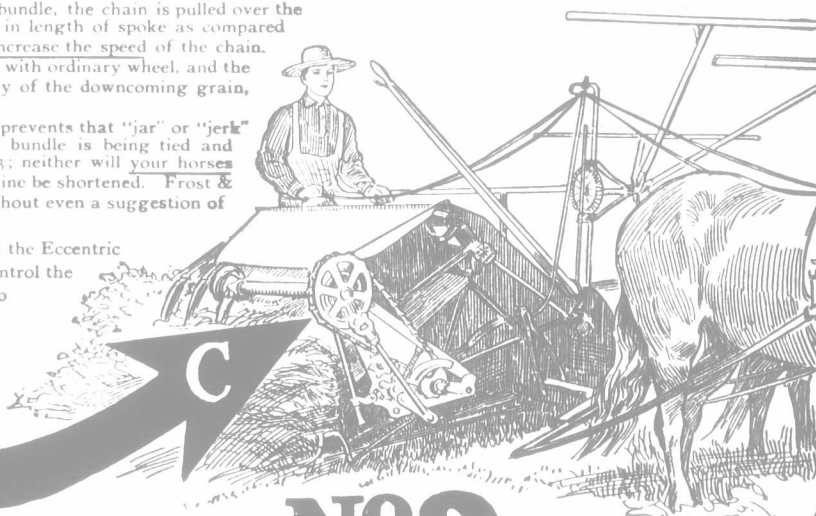
The Eccentric Sprocket does this, too—it prevents that "jar" or "jerk" always noticed on other machines when a bundle is being tied and discharged. You will not feel it on the No. 3; neither will your horses be annoyed by it, nor "the life" of the machine be shortened. Frost & Wood No. 3 runs along and does its work without even a suggestion of that "jerk."

Now, you see why every maker would put the Eccentric Sprocket Wheel on his binder if we did not control the patents for Canada. You see why it's wise to invest a post card and get our Binder Booklet so as to become thoroughly posted on the peer of them all—the Frost & Wood No. 3.

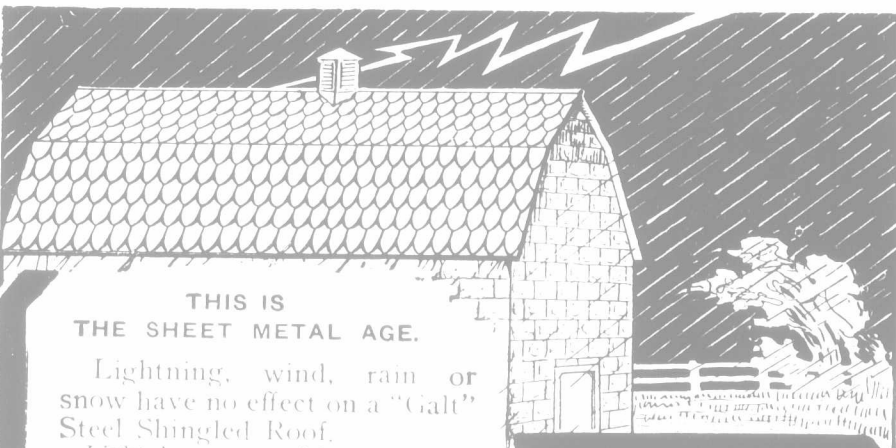
You are on the right track when you start investigating our No. 3—the binder that is built by a purely Canadian Company, who thoroughly understands Canadian conditions. We would like you to read a few of the hundreds of testimonials we have received from Canadian farmers, which back up our claims to the letter.

Just write us for catalogue F 47

The Frost & Wood Company, LIMITED,
Smith's Falls, Canada.



Frost & Wood No. 3 Binder



THIS IS THE SHEET METAL AGE.

Lightning, wind, rain or snow have no effect on a "Galt" Steel Shingled Roof.

Lightning just glides off our steel roof, follows down the conductors and disappears into the ground.

The continuous, overlapping, interlocking top joint and the Gates-proof closed-end, side-lock afford no opening for the wind and entirely prevent water or snow from being blown through the joints—one of the weaknesses of other shingles.

"Galt" Shingles make twice as secure a roof, because they are the only locked shingle nailed on two sides.

Handsome and easiest and quickest laid shingle on the market.

Catalog "B-2" tells about them.

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

"Galt" Shingles



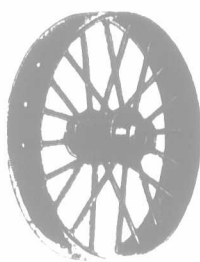
PERFECT

Maple Evaporator

Price low—quality high—product the best possible—the kind you like syrup—it retains its maple taste—all unnecessary expense and middlemen's profits cut out. Sold at a price the poorest man can buy. Every one guaranteed. Write for pamphlets and recommends. Do it now.

Steel Trough & Machine Co., Tweed, Ont.

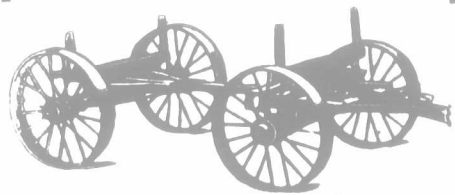
The One Wheel The One Wagon



Dominion Low, Wide-tire Steel Wheels are made on principle of bicycle wheels. Distribute st an equally Stronger, lighter and cheaper than wooden wheels. Will not rot or easily break. Carry all horses can draw. Wide tires save roads, and reduce loading labor and time. Can be taken apart. Guaranteed not to break in coldest weather or on rockiest roads.

Our Handy Wagon saves labor and time. Pays for itself first year. Lasts lifetime. Makes loading and unloading easier. Strong enough to carry all horses can pull. Made of finest material; best workmanship; neat appearance. Write for free catalogue.

Dominion Wrought Iron Wheel Co., Ltd. Orillia, Ontario.



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Well DRILLING & PROSPECTING MACHINES.
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The Farmer's Advocate and Home Magazine

"Persevere and
Succeed."

Established
1866.

REGISTERED IN ACCORDANCE WITH THE COPYRIGHT ACT OF 1876.

Vol. XLV.

LONDON, ONTARIO, FEBRUARY 10, 1910

No. 907

EDITORIAL.

If "Whip" can handle colts as well as he does criticism, he is an expert in at least two lines.

Though an admirer of the West, Dr. J. W. Robertson, with his usual Scottish-Canadian sagacity, foreshadows that Eastern Canada will always be the dominant partner in the Dominion concern.

The disastrous floods at Paris, France, were attributed primarily to the stripping of forests from mountain slopes and plains, thus precipitating an unusual rainfall as a sudden torrent through the low-banked rivers. Another warning to Canada.

When a local grocer in a Canadian city uses half a newspaper page to exploit the sale of a fresh lot of oranges, the suggestion naturally arises that the trade in apples, which come to their finest perfection in our own country, would bear more enterprising attention in the home market.

"I told you so," says Mr. Meighen, and he has good right to say so. His advice to Canadian farmers last fall, not to rush their wheat to market, and thereby depress prices, has been worth hundreds of thousands, perhaps millions, of dollars to Canadian producers.

"If a man finds a bee-tree and takes the honey, we do not call him an apiarist. Why then," asks Mr. Rice, "should a man who robs a cow of her calf and takes the milk be called a dairyman? To be a dairyman, one must have a dairy temperament," he adds, "and no dairyman should be content with less than 6,000 pounds of milk a year per cow."

Over five million plants of ragwort (the plant which causes Pictou cattle disease) destroyed by school children working for prizes, is an achievement standing to the credit of the East Pictou, N. S., Women's Council. The educational influence on the pupils is probably more important than the economic benefit from the destruction of the plants.

One advantage from the weighing of each cow's milk night and morning is emphasized by an incident mentioned by S. A. Freeman, in his essay on "A Year with a Dairy Herd." A cow's preference or dislike for individual milkers can be discovered. On looking over the records one morning, it was noticed that four of the cows that had been milked by a new hand were down in their milk. Mr. Freeman, knowing that there was milk there, succeeded in getting 18 pounds more from those four. That man never milked those four cows again.

When the Federal and Provincial Governments have completed their probe into the increased cost of living, it will probably disclose three things: First, an excess of people in cities and towns compared with those on the land, which, therefore, does not produce food fast enough for the mouths that are to fill; second, a complicated and costly system of distributing food products to the people by dealers, big and little; third, that, considering capital invested, intelligence and industry required, the farmer receives no more than a fair return for his products.

Audit the Banks.

Banking is the only great business in Canada we can think of that is not properly audited. To be sure, the local branches of each bank are inspected by a salaried officer, often a man intimately connected with the head of the institution, but the books at the head office are not, as a rule, certainly not by law, subject to any adequate auditing or inspection by an outside expert such as an ordinary commercial firm would employ before submitting its annual statement to the directors' consideration. This lack of independent inspection at the head office is the weak spot of a banking system otherwise one of the finest, most stable and most adaptable in the world. It explains why, since the adoption of inspection, in 1863, the United States, with a banking system much inferior to ours in many respects, has had only five and a half per cent. of failures, while in Canada during the seventeen years, 1893 to 1909, we have had nineteen per cent. of failures.

Banks are wrecked either by or as a result of dishonesty or mismanagement in the head office. It is claimed by those conversant with banking that the beginnings of evil, whether due to speculation or bad judgment, could be detected by a competent inspector at the head office. The trouble leading to the downfall of the Ontario Bank, for instance, could have been nipped in the bud had the directors been aware of what was going on; but the directors, or most of them, being otherwise occupied, not being experts in banking, and taking their responsibilities about as seriously as directors generally do, allowed misappropriation of funds to be practiced and the true condition of affairs to be concealed, blissfully unconscious that there was anything wrong. The result was a crash, mitigated only by the voluntary mutual support rendered by the larger banks. Government inspection, as they have it in the United States, or the system of independent audit obtaining in Great Britain and other countries, would have exposed the beginnings of evil, and averted a catastrophe.

The decennial revision of the Bank Act is to be made during the present session of Parliament, and the movement for Government or independent inspection of banks, which has been discussed in Canada since 1875, and has been recently gathering strength since the notorious failures of the Ontario and Sovereign Banks, has found an effective champion, its first one among Canadian bankers, in H. C. McLeod, who has recently resigned the management of the Bank of Nova Scotia. Mr. McLeod has issued a booklet, now in its fifth edition, setting forth the arguments, pro and con. In it he disposes of certain objections raised. To the argument that bank inspection, to be thorough, would need to comprehend all the branches of a bank at the same time, he replies: "In our investigation of the causes of failure of banks operating branches, we have not found one instance in which failure was due to bad management at the branches. . . We have no record of fraudulent failure in which the vicious conditions existing could not have been readily detected by an expert at the head office of the bank."

The claim that Government inspection might not detect all forms of possible loss is deservedly swept aside as no valid argument against inspection, as is also the assertion that customers know the relative stability of the banks. Small investors and savings depositors do not know, and are not capable of judging, or in a position to judge, the standing of the banks that solicit their patronage. In this connection, Mr. McLeod points out that a savings depositor is merely a general creditor of the bank. Note-holders are protected by the conditions of the law which make a bank's

notes the first claim on its assets; the Government's claims come next; the savings depositor falls into the last class, that of the ordinary creditor, who is paid only after the note-holder and the Government.

About the only argument against Government or independent inspection of our banks is that it might lull patrons into a sense of unwarranted security. This, however, if carried to its logical conclusion, would oppose any kind of Government supervision in anything. The layman's view will be that half a loaf is better than no bread, and that external inspection would have a wholesome and much-needed effect on the head officers of our great fiduciary institutions.

Good management has nothing to fear from outside inspection, and, while honest differences of opinion must be recognized, the public will be disposed to suspect the standing and practice of those banks whose managers are sensitive about inspection. Is it not strange that, although the pamphlet referred to above has had a circulation approaching 60,000, indicating a widespread interest in the question, we see little mention of it in the newspapers, or even in publications devoted especially to finance?

"A Year with a Dairy Herd."

That the dairy business is one which develops business capacity and the observant and reflective faculties, was abundantly borne out by the quality of the essays received on the subject, "A Year with a Dairy Herd." Any one of them was worthy of a prize if there had been none better, and as there is nothing more instructive than an account of actual experience, such as given in each of these essays, all, or at least most of them will be published. A well-written article by J. N. Chambers, Oxford Co., Ont., unfortunately came in too late to be considered in the disposition of awards.

In the contribution by S. A. Freeman, Oxford Co., Ont., which was awarded first prize, will be found much to stimulate other dairymen to effort in the line of increased milk production. To bring and keep a herd of seventy cows up to the high yearly average of 6,708 pounds of milk per cow, as Mr. Freeman has done, is a feat in dairying that should certainly give hope to those who are trying for something of the kind themselves. The fact that the individual milk average has been increased in four years by 1,664 pounds, shows the possibilities of improvement in even an already excellent herd. It will be noticed that Mr. Freeman attributes his success mainly to accurate knowledge of what his cows were doing.

W. Hargrave, Waterloo Co., Ont., and J. H. Colpitts, Albert Co., N. B., between whom the second prize is divided, both have instructive experiences to relate. Mr. Hargrave's paper is quite a model for a clear and easily-understood record of a year's work. It was decidedly the best-composed and best-written essay received. The returns per cow are not large, partly because of the low price received for butter, but also because of the fact that some were evidently heifers, and milking only a part of the year. Improvement might possibly be made both in the class of cows kept, and in the kind of food supplied. Corn appears to have been utilized but for a short time.

Mr. Colpitts gives an important point of good dairy practice in one sentence: "We aim to fill our cows comfortably every day in the year, and do our best to make that filling as succulent and palatable as possible." He manages to feed turnips, which thrive especially well in the Maritime Provinces, without giving offense to any of the special customers who buy his butter. Mr. Col-

THE FARMER'S ADVOCATE AND HOME MAGAZINE.

THE LEADING AGRICULTURAL JOURNAL IN THE
DOMINION.

PUBLISHED WEEKLY BY
THE WILLIAM WELD COMPANY (LIMITED)

JOHN WELD, MANAGER

AGENTS FOR THE FARMER'S ADVOCATE AND HOME JOURNAL,
WINNIPEG, MAN.

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is published every Thursday.

It is impartial and independent of all cliques or parties, handsomely
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pitts beats the Ontario competitors in the amount
he receives per cow, his returns for butter alone,
not counting in the value of skim milk, buttermilk,
etc., being over \$80 each—a great showing, cer-
tainly. An average of 356 pounds of butter per
cow in a year is a record to be proud of, and
shows that not only were high-class cows kept,
but that there was a skillful feeder attending
them.

The Demand for Good Horses.

The high prices ruling for heavy-draft horses at
present, and the prospect, amounting practically
to a certainty, of a continuance of the active de-
mand for this class for years to come, at profit-
able prices, would appear to appeal to farmers
generally to give attention to the raising of more
and better horses of that class. It is true that
for the better class of carriage and saddle horses
the demand is also uncommonly good, the market
prices for such being high, and likely to continue
so. And those who have well-bred mares of that
class, of proper quality and conformation, by
breeding them to superior sires of their own class,
may, with confidence, count on a continuance of
high prices for the best. But to breed from that
description of mares, mated with heavy-draft sires,
is to cater to the market for low-priced stock,
while the expense of raising and keeping an in-
ferior horse is quite as great as for one of the
better sort. Breeding sound mares of the light
class to heavy-draft sires may, and probably will,
produce useful, general-purpose horses, described
in the market reports as "chunks," but this class,
when offered for sale, bring only half to three-
quarters as much money as the big, heavy sort,
and have cost nearly as much to raise.

That this is a fair statement of the case, is
evidenced by the reports of the horse market in
such centers as Toronto and Montreal, appearing in
these columns from week to week.

In one of our Toronto reports last spring,
taking March 11th, 1909, as a representative is-
sue, drafters weighing up to 1,600 pounds were
reported as selling up to \$215 each, while general-

purpose horses were quoted at \$140 to \$180, and
serviceably sound horses at \$40 to \$80.

In our Montreal report of same date, heavy
drafters, 1,500 to 1,700 pounds, were quoted at
\$225 to \$300; light drafters, 1,300 to 1,400
pounds, \$175 to \$200; small or inferior at \$50
to \$75; choice saddle or carriage, \$300 to \$500
each.

In our Toronto report of last week, drafters
were quoted at \$180 to \$220; expressers and
wagon horses at \$175 to \$200, and drivers \$100
to \$200. The same week, Montreal reported
heavy drafters of 1,500 to 1,700 pounds as selling
at \$225 to \$300 each; light draft, 1,400 to
1,500 pounds, \$180 to \$240 each; and small
horses of 1,000 to 1,100 pounds, \$100 to \$150
each; choice saddle and carriage animals, \$350
to \$500 each, but only select horses of this latter
grade command figures worth while.

Lecturers at the late Winter Fair, at Ottawa,
are reported as having stated that for extra-good
heavy drafters as high as \$800 to \$1,000 a pair
could be had. These, of course, are extreme fig-
ures, which could not reasonably be expected as
an average, but there is a wide margin between
these values and the average price prevailing for
good heavy-drafters, and there is ample encourage-
ment in current market prices, and in the outlook
for the coming years, for farmers to breed and
raise horses as a commercial undertaking, apart
from the more speculative field of pedigree stock-
breeding, where prices are more or less influenced
by popular lines of breeding and super-excellence
of certain individuals.

HORSES.

The Shire Horse.

By Arthur G. Hopkins, B. Agr., D. V. M.

The demand for heavy-draft horses has directed
the attention of many horse-breeders to the sources
from which blood may be had in order to obtain
the results desired. With that end in view, the
attention of readers of "The Farmer's Advocate"



Leek Advance.

A Shire stallion in three-year-old form.

is directed to that famous old breed, known as
the English Cart Horse, or, in everyday language,
the Shire.

There are certain essentials which must be ob-
served when recommending a breed for a certain
purpose, especially when it is sought to impress
the characteristics of that breed or type, or that
class of equine stock termed "grade." One point
that may not be overlooked is the age and history
of a breed, for on those two items depend largely
its prepotency; in other words, its ability to trans-
mit any or all of its desirable attributes to stock
of mixed, little, or no breeding.

The Shire is not a new breed of horses; authori-
ties agree that it is substantially the same as has
existed in England for the past two centuries,
while some enthusiasts claim the breed to be di-
rect descendants of the war-horses of Britain at

the time of Julius Caesar. In any event, the
breed is of sufficient age to have its characteristics
and lineage firmly and plainly fixed, and is none
the less acceptable on that score.

In Great Britain, the welfare of the breed is
looked after by the Shire Horse Society, a power-
ful organization, holding an annual show and
auction sale, in addition to publishing one of the
most valuable, interesting and informative stud-
books extant. Volume XXII., published in 1908,
contained the pedigrees of 1,119 stallions and
3,964 mares, as, also, statistics of a useful kind.
In 1907, 390 Shires were exported to the United
States, 117 to Argentina, 113 to Canada, a con-
siderable increase over the figures of the year
previous; 1908 and 1909 have each increased
over these figures. The statistics given, together
with a general average at the Society's auction in
London, of over \$530 for 120 horses of various
ages and sex, evidence the growing demand for
the breed. At the sale referred to, \$3,465 was
the highest price paid for a stallion, and \$1,050
for a mare.

The soundness—a very important question with
all horsemen—of the breed is best demonstrated by
the Society's Board of Veterinary Examiners, be-
fore whom all exhibits must pass before being per-
mitted to be shown. Out of 313 horses examined
rigorously, 27 were rejected, as follows: 10 for
defective respiration (wrong in the wind); side-
bones, 6; spavin, 4; cataract, 2; shivering, 2;
stringhalt, 1; ringbone, 1; lameness, 1. Of 140
mares censured, 8 were thrown out, and only 14
stallions out of 152 examined—a splendid record,
unequaled by other draft breeds, unless it be the
Suffolk. It will be noted, also, the rigid exclusion
of any tendency to hereditary troubles. Thus, the
breed can be considered a safe and sound source
from which to select sires to breed to the grade
mares of the country, for farm work or city pave-
ments.

The leading sires of winners at the breed shows
were: Lockinge Forest King (18867), with 17
winners in 1907, and nine in 1906; Dunsmore
Jameson II. (17972), with 14 in 1907, and 18 in
1906; Birdsall Menestrel 3rd (19337), with six
winners, and four at the 1906 shows. Following
this great trio are: Markeaton Royal Harold
(15525), Menestrel (14180), and Tatton Friar
(21453). The leading strains of blood are: The
Harold (3703), and Lincolnshire Lad II. (1365).
Of 132 winners, all but three traced back in di-
rect male line to six common progenitors.

On account of the pa-
tronage and support of
many wealthy and titled
Englishmen, the require-
ments of the big cities,
London, Liverpool, Man-
chester, Birmingham, and
Cardiff, for horses for dray
and cartage work, together
with attention shown by
tenant-farmers, has kept
the home markets for
Shires very strong, and
has thus hindered exporta-
tion. Many tenant-far-
mers who have been fortu-
nate in having available
the breeding studs of the
wealthy landowners have
of recent years made tidy
incomes, although we do
not hear quite so much of
their operations as we do
of their Shorthorn-breeding
confreres.

His Majesty the King
has been and is a great
friend of the breed, and has
sent many good ones from
his stud to the shows and
sales, as have Lord Roth-
child, Lord Ellesmere, the
Duke of Beaufort, Sir Wal-
ter Gilbey, Lord Egerton
of Tatton, the late Philo
Mills, Arthur Gibson
(brother to Richard and
John T.), and many others.
The writer well remembers
his first Shire show, at Is-

lington, 1889, when the black horse, Vulcan
(4145), won the breed championship and the
Elsenham Cup for Lord Ellesmere, although run
hard by the two-year-old Nailstone Conqueror.
The two horses mentioned sold for \$10,000 and
\$7,500, respectively.

My interest in the breed was not lessened by
the notable winnings, as a sire and individual, at
Toronto and Buffalo, in 1888, over all competitors
from the other draft breeds, of the imported horse,
King of the Castle. Since that time, a further
and more extended acquaintance has only en-
trenched them more firmly in my regard, so that
I consider the Shire at the present time to be the
most suitable and valuable breed for the Canadian
farmer-breeder of draft horses, for farm or city
use, to select stallions from.

On this side of the Atlantic the breed has had

a certain vogue; in the United States, greater perhaps twenty years ago than during the last decade, when the Percheron, by dint of continued, extensive, and well-planned advertising, bid fair to overwhelm all other draft breeds, and managed to eclipse for a time the British draft breeds. The revival is at hand, judging by reports of recent auctions in the United States. Farmers are beginning to find out that the cleverly-engineered cry for extreme quality of bone and slope of pastern was one to turn a deaf ear to, and find that weight, bone and substance cannot be sacrificed with impunity if one is attempting to build drafters. In Canada the breed has made comparatively slow progress. Vol. I. of the Canadian Shire Studbook, issued 1901, contains the pedigrees of 320 stallions and 155 mares; while Vol. II., only now in the printer's hands, will contain pedigrees of 374 mares and 369 stallions. Several reasons may be given as explanatory of the comparative paucity of numbers, such as (a) the preponderance of Scotch settlers of the agricultural class, who naturally preferred the breed they were acquainted with; (b) the high prices in England were prohibitive to would-be Canadian importers; (c) the financial depression, extending in influence to agricultural enterprises, in the nineties; (d) the craze which swept over Eastern Canada for an infusion of trotting blood, the worst cross ever known on the ordinary farm mares, at about the same time, 1888 to 1895. Following on this arose a demand for quality of bone, large feet, and extreme slope of pastern, all of which had been lacking in many of the Shires of the eighties; also, the few Canadian breeders of the English draft horses did not advertise their favorites by means of the shows and the use of printer's ink, as did the Clydesdale men.

Despite all these handicaps, the demand for Shires is steadily increasing, due partly to the coming of so many American and Old Country settlers to the West, the use of larger and heavier farm implements, and the disgust of many sections where pony-built, so-called draft stallions, or weak-joined, shallow-flanked, effeminate males had stood for service. These sections of our farming districts wanted more weight and size, deeper-middled horses, and, therefore, easier keepers, better wearers, with sufficient bone to carry a draft horse, and consequently turned to the Shire for these desiderata. It speaks volumes for the breed that in districts where a good Shire stallion has done stud duties, no other draft breed need come. A recent sale at St. Thomas, Ont., of mares and fillies of the breed in Ontario, averaged \$303.85—not at all bad for an offering of thirty two- and three-year-olds.

The modern type of Shire has weight, size, and sufficient bone to correspond, is an easy keeper and long wearer; is strongly prepotent, the entire being virile, and can suit all tastes in equine colors, either in blacks, browns, grays or bays. In addition, it should be emphasized that, as a breed, the Shire is probably the most free from hereditary unsoundness of any of the draft breeds—all considerations that will not be overlooked by the horseman, and which must not be forgotten by the would-be breeders of draft horses for the markets.

"Whip's" Experience as a Colt Trainer.

Editor "The Farmer's Advocate":

I am in receipt of yours of January 25th, in which you state that you have received from a disappointed competitor in the recent colt-training essay competition a letter in which he finds fault with the awards, and asks, "How a man like 'Whip,' with scarcely any experience, was capable of judging the essays?" You ask me to state what experience I have had in training colts, how many I have trained, etc.

Now, sir, your correspondent evidently knows nothing about "Whip" or his experience, else he would not claim that his inability to correctly judge the essays was due to inexperience.

As to how many colts I have handled, it is not possible for me to state with any degree of accuracy, but, to be well within the mark, I will say at least 100.

It is not always pleasant for a man to be forced to think of things that forcibly impress him with the fact that he is no longer a young man. This subject forces me to admit that my experience in handling colts covers a period of more than 40 years. This again forces me to admit that I have passed the half-century mark, and that I commenced to handle colts at a very early age. My earliest recollection of the matter is when my brother and myself were teaching one of my father's colts (still nursing) that we called "Wrinkle-tail" to lead. We succeeded in getting her handy on the halter and to stand tied before she was weaned. During the following winter we took her out into the snow in a field, and gave her her first lessons as a saddler. We both were thrown, but the snow was soft, and we enjoyed the fun, and, from my recollection of the occurrence, so did the filly. After this we got some old harness, and trained her to draw our hand-sleigh up and down the lane. At first, one led the filly, and the

other rode on the sleigh, but we soon got a pair of plow lines, and taught her to drive. I may say that father encouraged us in this practice, and we used to follow the same practice with other colts, but father would not allow us to use the colts more than he thought they could stand without injury. As we grew older and stronger, father purchased more land, until he had 370 acres. He used to breed a few mares, and frequently buy colts of one, two or three years old. The foals that were born on the farm always got the early training mentioned, except that part relating to

a business of buying green three, four and five-year-old horses or colts, handling them and fitting them for market. These, of course, were of the lighter classes, carriage, road, saddle and combination horses; and, of course, in order to sell well, they required good manners. In addition to those I handled in this way, I handled many for the residents of the city, and for neighboring farmers who wanted their colts educated to single harness or saddle, or both, and did not care to train them themselves. In some cases I adopted the "breaking method," when I was anxious to get them going in harness as soon as possible, but in most cases I practiced the "educating method," which, of course, was not so speedy, but I found, in most cases, more satisfactory. Since appointment to my present professional position, in January, 1893, I have not had so much time for training colts, and have ceased handling for other people. During the first few years at the College where I lecture, it was my duty to spend the first three weeks in January in visiting and speaking at Farmers' Institute meetings. One of my subjects, and one that was very often selected, was, "The Education of the Horse." In addition to speaking on this subject, I occasionally wrote on it, and I think, sir, that an article on it by me appeared

in your journal some years ago. I may say that when I read Clark Hamilton's first-prize essay, a few weeks ago, he followed so closely my ideas that I was impressed with the idea that he had either heard me speak on the subject or had read my article. During all these years I have had more or less experience in handling colts. Some I have bred. Even though I have no farm, I continue to breed. I have now one in his third year, one in her second year, and two in their first year. Probably it does not pay me to breed, but I get a lot of pleasure out of them, especially when they are quite young. I am not now as fond of handling a green colt of three or four years as I used to be. It is all right until I come to that stage where I want to teach them to drive before hitching. I do not enjoy following a colt around on foot as much as I did a few years ago. My experience during the last twelve months has been as follows: Last spring I taught my colt (then two years old) to drive, and in the fall, after fetching him off pasture, I hitched him a few times for short drives, and he has now good manners. I have taught the filly, that will be two years old in May next, to the use of harness, and she drives well on the street. She met with an accident in the stable a short time ago, and but for that it is probable I would have had her going to a light cutter by this time; but, at all events, I expect to hitch her before she goes to pasture next May. On the first of April last I purchased a four-year-old imported Hackney mare. She was in foal, and, while trained to halter, had never had harness on. She foaled on May 7th, but in the meantime I had given her what I considered the



Sussex Blue Gown. Shire mare. First at Royal Show, 1906.

the hand-sleigh. We got too big for that. The most of the training took place during the winter, when we had more time. Father made us an affair that he called a "jumper." It was a sort of a cutter made out of ironwood saplings, strong, with long shafts, and reasonably comfortable to ride in. After we got a colt sufficiently handy to hitch we would hitch him to this, and drive to the different barns to attend the stock, etc. We always taught the colts to go in harness during their second winter; then, during their third win-

ter, the education would be continued, and by the time we wanted them for work we seldom had difficulty in driving them in double harness. This sort of thing continued until I was well into the twenties. No doubt this letter will be read by some who can verify the statements, as there are many of our old neighbors still in the section of Ontario where I was raised. About this time I left home and attended college, and after a time graduated as a veterinarian. I started practice in May, 1882, and, in addition to practice, made



A Typical Shire Cart Horse.

in May next, to the use of harness, and she drives well on the street. She met with an accident in the stable a short time ago, and but for that it is probable I would have had her going to a light cutter by this time; but, at all events, I expect to hitch her before she goes to pasture next May. On the first of April last I purchased a four-year-old imported Hackney mare. She was in foal, and, while trained to halter, had never had harness on. She foaled on May 7th, but in the meantime I had given her what I considered the

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necessary preliminary education, and had driven her a few times to a breaking cart. I brought her and her foal in from pasture early in October, and commenced to wean the foal and handle the mare. She is now quite safe, and handy in single and double harness, and I expect to teach her to lead in a tandem in the spring. Her foal is now well trained to halter, will lead well, stand tied, allow me or my man to groom her, clean out and pare her feet, etc. She is also so well used to a bridle that she will eat hay and be quite contented in her loose box stall with a bit in her mouth, and I will soon put harness on her, and get her accustomed to that.

So you see, sir, I am not quite out of the business yet, and I think I am justified in repeating that, when your correspondent claims that my inability to judge the essays is due to want of experience, he is mistaken. "WHIP."

LIVE STOCK.

International Tuberculosis Commission's First Session.

The American Veterinary Medical Association has recognized for some time that the question of tuberculosis-control work among domestic animals was a big and very difficult problem of universal interest and fundamental importance, and one that must be met sooner or later.

This Association clearly recognized that certain great interests are concerned in any dealing with this problem. Fundamentally, these are: First, general society interested in this question as a public-health measure; second, the live-stock producer, especially interested in the financial questions of profit and loss—the producer of animal foods for human beings; and, third, there was the manufacturer of these animal foods, the packer; and, fourth, the veterinary profession, involved as sanitarians and practitioners, intimately related on one hand to the producer, and on the other hand to the consumer.

With these considerations in view, the American Veterinary Medical Association made provision at its last session for the creation of an International Tuberculosis Commission, which should fittingly represent all these great interests. The essential duty of this commission was to study thoroughly and report upon the general problems of control work, rather than upon technical research problems.

The following gentlemen were selected to represent the United States on this Commission: Hon. W. D. Hoard, of Wisconsin, a practical dairyman, breeder, farmer, and editor of Hoard's Dairyman; Dr. John R. Mohler, Chief of the Pathological Division of the Federal Bureau of Animal Industry; Dr. V. A. Moore, Professor of Pathology, and Dean of the Veterinary College at Cornell University, New York; Dr. M. P. Ravenel, Professor of Bacteriology, University of Wisconsin, and member of the Wisconsin State Live-stock Sanitary Board; Dr. M. H. Reynolds, Professor of Veterinary Medicine, University of Minnesota, member and organizer of the Minnesota State Live-stock Sanitary Board; and Dr. E. C. Schroeder, Superintendent of the Federal Bureau of Animal Industry Experiment Station.

The members selected to represent the Dominion of Canada were: Hon. W. C. Edwards, Ottawa, one of Canada's most famous breeders of Shorthorns; J. W. Flavelle, of Toronto, a prominent Canadian packer; Dr. C. A. Hodgetts, Chief Health Officer for the Province of Ontario; Dr. J. G. Rutherford, Veterinary Director-General and Live-stock Commissioner, Ottawa; and Dr. F. Torrance, Winnipeg, Professor of Veterinary Medicine, University of Manitoba, and a prominent Canadian veterinarian.

So far as the writer knows, credit for the original suggestion, and for pushing the movement along until it finally resulted in the creation of this commission, belongs especially to Dr. Rutherford, of Canada.

The first session of this Commission was held recently, at Buffalo, New York. Dr. J. G. Rutherford was elected Chairman, and Dr. M. H. Reynolds, Secretary, of the Commission.

It was recognized that this was necessarily a preliminary meeting, and should be devoted to a discussion of organization, and plans for work, with the members getting acquainted with each other, and with each other's views.

It was soon agreed that the Commission could not wisely, at this stage, adopt specific resolutions or recommend specific methods, but a number of general propositions were taken up for consideration, and on some of these the Commission reached unanimous understanding:

1. That general compulsory tuberculin test and slaughter is impractical, and should be dropped from further consideration.
2. That voluntary testing for owners as a general State policy should be retained, provided it be recognized for what it really is; i. e., a very efficient means of public education, and as serving somewhat to keep further spread of tuberculosis among domestic animals in check.
3. It was unanimously agreed, recognizing fully

its limitations, that we can and should accept the tuberculin test under certain conditions, as a basis of suitable control legislation.

The general problem before the Commission—i. e., control work—was divided into four sections, and assigned to sub-committees as follows:

Education and Legislation—Dr. Reynolds (chairman), Governor Hoard, Dr. Rutherford (dissemination)—Dr. Moore, (chairman), Dr. Schroeder, Dr. Ravenel. Location of Tuberculosis—Dr. Mohler (chairman), Mr. Flavelle, Dr. Hodgetts. Disposition of Tubercular Animals—Senator Edwards (chairman), Dr. Mohler, Dr. Torrance.

One of the serious difficulties in our problem was recognized as the indifference of purchasers of valuable breeding stock who want certain blood lines, and are willing to take the tuberculosis in order to get the breeding.

It was recognized that marked change in public sentiment in most States and Provinces must be secured, and that this can be expected only as a process of slow development.

In this informal discussion, the Commission found and recognized the importance of certain doors admitting the sanitarian to the tubercular herd; i. e., (1) By way of the killing floor and local stock-yards to the farm; (2) through clinical cases recognized in practice, inspection, or otherwise; (3) tuberculin testing for interstate and export traffic.

Two important general sources of dissemination (not individual infection) were recognized: First, the traffic in tubercular cattle, especially in pure-bred stock; and second, in pasteurized creamery skim milk.

In view of these various considerations, it was also agreed that the Commission needs the assistance of two more members, one of whom should directly represent American packers, and the other should represent American State Health officers.

M. H. REYNOLDS, Secretary.

From Beef to Dairying.

The Village of St. Mary's, in Perth County, is one of the prettiest towns in Western Ontario. Built on the valley slopes of the north branch of the River Thames, its appearance, as seen from the railway train, which runs on the high ground, never fails to call forth admiring remarks from the passing traveller. But it has more than beauty to recommend it. It is the center of one of the finest sections of farming land to be found out of doors. The soil of this section is almost invariably rich clay loam, though once in a while a gravelly field occurs. In the flats of the river below the town are the limestone quarries, in which the rock is found in level layers from three to six inches thick, easily pried up with crow-bars. This rock has been used so freely in the building of St. Mary's that the town is known in newspaper phrase as the "stone village."

Ten or twelve years ago, the winter fattening of cattle was almost universal among the farmers within a radius of twenty miles from St. Mary's. At that time there was scarcely a farmer who did not have from four to six feeding cattle every winter, and some who made a specialty of the business would have as many as forty. In those days, during the time when export cattle were being shipped in the spring, it was not uncommon for four or five hundred cattle to be driven into St. Mary's in one day. That is all changed now. A representative of "The Farmer's Advocate" visiting that neighborhood recently, was informed by a resident who has been in the cattle-buying business all his life, that at present not more than two or three carloads of export cattle left the town during the whole season. A few butcher cattle are shipped still, one or two being picked up at a place, but the old-time feeding has vanished. Practically everyone has gone into dairying. Why? The answer on every hand is very simple, "There is more money in it." Besides the St. Mary's creamery, which makes butter only, there are cheese factories accessible to every part, which manufacture cheese from the middle of April till the end of November, and make butter during winter.

A few farmers, however, still stick to the production of beef for export, and if prices hold up, as they promise to do, these men will come out all right this season. Among them is Hazel White, who has a stableful of twenty steers. The most of these are loose in a roomy pen, without any divisions in the manger. Water can be had at will in a trough at one side. Mr. White is not quite satisfied with loose-box feeding, as he thinks that some of the more aggressive animals get more

than their share, while others are left with too little. He intends, by next fall, to have stalls for all his feeders. His cattle are bought in each year, Shorthorn grades rising three years of age being preferred. His bunch this season are doing well, and are pretty even and well-bred. He feeds silage mixed with cut straw, as much as they will eat up clean, night and morning, putting on this cut feed each time five quarts of oat chop for each steer. Clover hay is fed at noon.

Douglas Martin keeps ten grade Shorthorn cows, whose milk is sent to the factory for cheese-making in summer, and for butter in winter. He aims to have his cows freshen in fall or early winter, so that calves can be raised on skim milk. His calves are all sired by a pure-bred Aberdeen-Angus bull, owned by himself. He crosses no further than once, selling all the progeny for beef as they come to the proper age. He has six handsome three-year-old steers in the stalls. Mr. Martin likes the Shorthorn-Angus cross, as they fatten on less food than ordinary cattle require, and are so smooth and round that they can be sold at any time. Almost every one is pure black. The ration for these feeders per day is, 35 pounds silage mixed with cut straw, 2 gals. mixed barley and oat chow, and 1½ pounds oil cake, besides a few roots, divided into two feeds, with uncut



Royal Gretna (Imp.) [9599].

Clydesdale stallion, four years old; sire Royal Citizen. Winner of third prize at the Ontario Winter Fair, Guelph; first and championship at the Eastern Ontario Winter Fair, also special gold medal as best draft stallion exhibited. Owned by Smith & Richardson, Columbus, Ont.

Vealing Calves on Little Milk.

Donald Bain, Perth Co., Ont., who sends milk to the factory to be made into cheese in summer and cream in winter for buttermaking, yet manages to veal ten or twelve calves every year. Being at his place a short time ago, the writer saw a calf two weeks old, which was being fattened, and was certainly an excellent animal, being as thrifty and fat as any calf sucking its own mother would be. When seen, this calf was just finishing its breakfast, which had consisted of, first, a quart of new milk given alone, and afterwards two or three quarts of warm separator milk into which had been stirred three handfuls of low-grade flour. Mr. Bain gives only new milk for four or five days, then changes to a quart night and morning, followed each time by a feed of skim milk mixed with uncooked, low-grade flour, a handful only at first, the quantity being gradually increased, according to the size and appetite of the calf. In four or five weeks they are fit for the butcher. He has practiced this method of fattening calves for over two years, and has never had a case of scours. Much, however, as he says, may depend on the feeder. This method of calf-feeding might not be suitable for those that are being raised to maturity, but it is surely worthy of some experimenting.

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Dairying.

Perth County, in Western Ontario, north branch of the high ground, has more than 100 farms, the center of one and to be found in almost every section is almost once in a while flats of the river and quarries, in some places from three to four miles up with crops freely in the town is known in the village."

winter fattening of the farmers from St. Mary's, a farmer who did not raise cattle every year, was informed that the cattle-buying was not more than a few miles from the town. The butcher cattle picked up at a vanished. Practically simple, "There is more money in the creamery than in the cheese factory accessible to any part, which manufacture cheese from the middle of November, and make butter in winter.

A few farmers, still stick to the production of beef for export, if prices hold as they promise to do, these will come out right this season. Among them Hazel White, has a stable of twenty cows. The most of these are loose in a roomy pen, but any division in the manure. Water can be had at will in a trough at one end.

Mr. White is quite satisfied with loose-feeding, as he says that some of the more aggressive animals get more left with too much to have stalls bought in each year of age. He feeds as they will get on this chop for each

roughage at noon. The intention is to sell these cattle in February.

Still another style of handling beef cattle was found at the farm of Thos. Woods, who at one time kept a considerable number of pure-bred Shorthorns. His fine herd of grade Shorthorn cows are scarcely distinguishable from pure-breds, so massive and fleshy and well-colored are they. For his own exclusive use he keeps a pedigreed bull, the one in use at present being a strong, deep-fleshed roan, which at the age of two years and ten months weighs 1,800 pounds. Mr. Woods has hopes that this bull will almost equal in size a white bull that he previously owned, which when sold for beef, weighed 3,010 pounds. As will be surmised, Mr. Woods is a liberal feeder. He believes in meal and turnips, but has no use for silage. At present he has six calves, which are being suckled by three cows. The calves come at all seasons of the year, but some of them have to put up with skim milk for their rearing. There are usually a number of fine cattle being fattened in winter, but this season there were none, Mr. Woods having sold off his steers in the fall. He said he was offered \$5.25 per cwt. for them, and thought best to let them go. They were under three years of age, and averaged about 1,400 pounds each.

Such are some of the methods pursued in the production of beef by the survivors in a branch of farming which once was almost universally followed around St. Mary's, but which has been abandoned to such an extent that the district is now almost as exclusively devoted to dairying as it formerly was to the production of beef cattle.

The Profitable Type of Steer.

A feature of unusual interest in connection with the slaughter test at the O. A. C. Stock-judging Class, last month, was a comparison of the carcasses of two steers, first judged alive. One of these was a good smooth, white beast, 21 months old. Another, of the same age, was rather plain, low in the back, and heavy in the shoulders. There were three steers killed in all, but the most interesting comparison lay between the two mentioned. Contrary to expectations, the plain bullock dressed out the better carcass. Not only was he a little fatter and thicker, giving a percentage of 65, as compared with the other's 63 per cent., but he possessed a fine quality of lean meat, beautifully marbled.

While it would be most unwise to draw sweeping conclusions from the results of a single test of this kind, since the case was probably exceptional, still such instances are calculated to raise the question whether undue emphasis has not been placed upon what might be called the fine points of perfect beef type. The plain steer in this case, while apparently rather low in the back, showed no signs of that tendency when his carcass was hung up. Then, as to the matter of shoulders, as Mr. Gosling, of Kansas City, pointed out, the thick, rough-shouldered ones are often the steers with muscle underneath, whereas the very smooth animals sometimes exhibit a certain sparseness of fleshing. Of course, too much emphasis must not be placed upon such an inference, for we know very well that many fine-boned, egg-shaped, quality bullocks kill out the very best of carcasses, and command a distinct premium on the market.

The call is rather to inquire into the soundness of theories commonly held, and to examine whether in following the butcher's ideal of a smooth, fine, trim-bellied type, breeders of beef cattle may not have sacrificed feeding qualities, without securing a proportionate advantage in the quality and percentage of meat. The substantially good steer, with ample capacity for converting coarse farm products into beef, bred from a dam that has earned her own keep at the pail, is the most economical beast from the farmer's standpoint. Such stock is calculated to supply our tables with good roasts and steaks produced at a reasonable cost.

THE FARM.

Shed for Implements.

Editor "The Farmer's Advocate":

Seeing your request for those who have an implement shed to write and give particulars, I will do so. Our shed is 40 feet long, by 14½ feet wide, with back posts 6 feet and front posts 7½ feet high. The front is all open except a board under the eaves, and there is no floor. The back sill is six inches lower than the front one, so that any machine can be run in by hand. We back the most of machinery in, so that when we wish any one piece, the team is hitched right on to where it is. The building is divided into four sections, with a post at each section. About six thousand shingles were required for the roof. This implement house is located in one corner of the barnyard, and, after using it now for one season, I am fully convinced that the cost was saved the first year. We put only first-class material in the frame, though unplanned, second-class lumber was used for boarding, and the total cost, including work, was not over thirty-five or forty dollars. I feel satisfied that,

after anybody has a storage place with his machinery, he will be more than satisfied with his investment. We store carts, wagons, mower, rake, potato-digger, manure spreader, potato-planter, horse hoe and sleds, and thus, as can be seen, the proportionate cost of each machine is very small. A person might have a barn or other building so situated that a lean-to might be more cheaply constructed than a separate building.

C. FRED FAWCETT.

Westmoreland Co., N. B.

Value of Different Kinds of Manure

The question as to the value of a ton of barnyard manure, is one which it is much easier to ask than to answer. While travelling over large sections of our great West, going upon the farms of men whom we consider wide-awake, and seeing them, day after day, and season after season,

and accommodation given, the kind and quality of litter used, the percentage of the liquid portion fixed and saved, the management of the manure during its accumulation, its after-treatment before it reaches the soil, the mode of application, the nature and condition of the soil to which it is applied, the character of the crops grown, etc.

In considering the value of farmyard manure, we must first understand that, although the structure of plants is composed of some ten or twelve different elements, all of which must be provided to bring the plant to perfect maturity, yet it has also been ascertained that, in practice, there are only about three of these substances we require to consider. These are nitrogen, phosphoric acid and potash, and are the only elements of which our soils are likely to become impoverished; hence, in artificial fertilizers, they are the only elements which have a commercial value, and the value of manure is commonly estimated upon the basis of

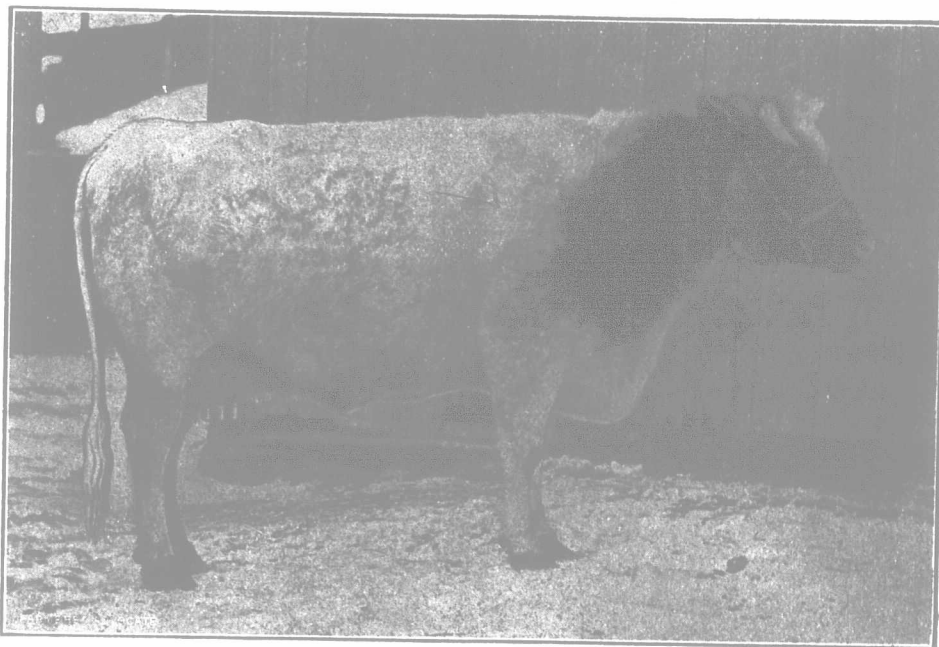
the commercial value of these three ingredients in the form of artificial fertilizers.

It must not be inferred, however, that the following figures will invariably represent the value that these manures will be to the farmer when applied to his field. No general estimate of this value can be made. So much depends on soil, season and circumstances, that it would be better, in speaking of these values, and of the manual value of food, to say that the valuable plant-food elements which these contain would cost a given sum, rather than that the manure would always prove itself to be worth that sum.

The composition of farmyard manure is very variable. It is composed of the solid and liquid excrements of our domestic animals, together with the straw used as bedding and for the purpose of soaking up and fastening the liquids, for which latter purpose it is very much better to be cut short, and a sufficient quantity should always be used to absorb all the liquid portion of the manure.

PERCENTAGE OF SOLID AND LIQUID EXCREMENTS.

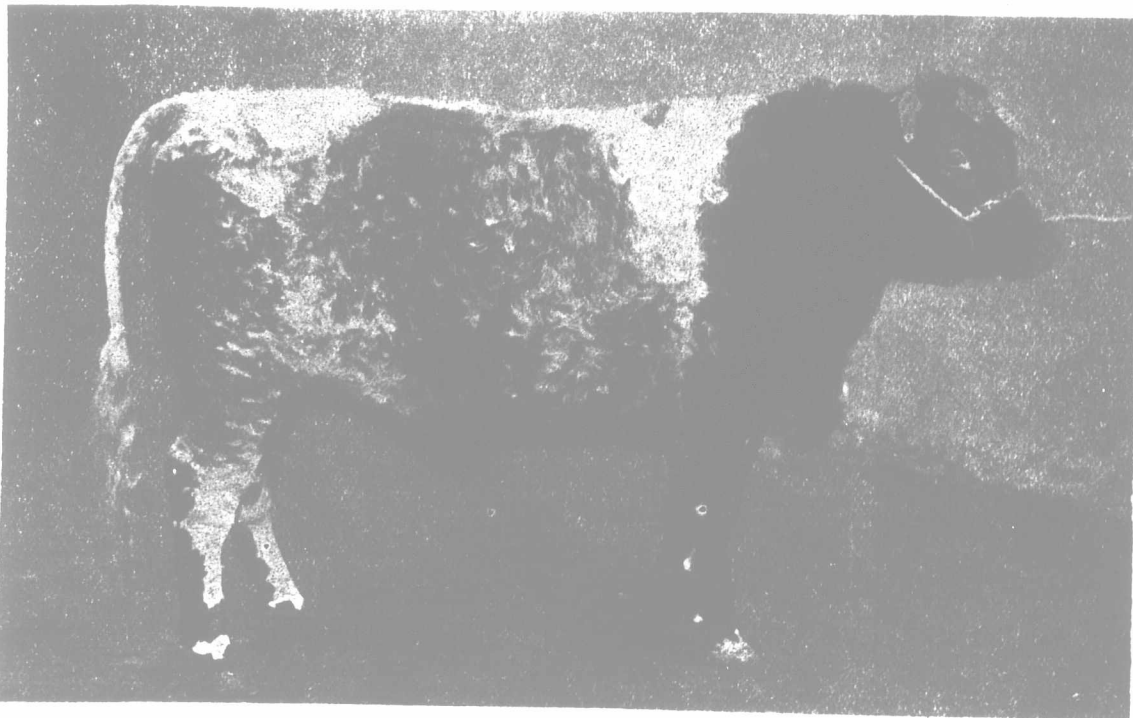
Any figures relating to the composition of animal excrements can be only approximate, because so many influences affect their composition that it is impossible to give exact percentages. The solid excrement contains the undigested portion of the food, while the liquids contain a large part of the worn-out material of the animal body and a part of the digested portion of the food. From this fact, it will be seen that the more indigestible the food given, the greater will be the proportion of its constituents, which will appear in the solid excrement, and the more digestible the food, the



Helen 21st (Imp.) -48704-

Shorthorn cow, dam of the Toronto grand champion bull, 1909; the sire of the cow is Archer's Pride. She is owned by John McKenzie & Son, Columbus, Ont.

burning their straw, and dumping their stable manure over the hillside in some near-by deep ravine, where it is practically impossible to obtain it again, we are wont to exclaim, "Can it be that upon those virgin soils manure is worthless, and its presence a nuisance?" To the British tenant-farmer, conversant with the Agricultural Holdings Act, in which special provision is made for giving compensation to the outgoing tenant of a farm for unexhausted manures he has applied to the soil, such action would certainly be an eye-opener. But when, upon more searching investigation, we find men who have experimented upon those fertile lands, and found that manure, properly applied, will sometimes force their wheat crops to maturity from five to nine days earlier, and thus at times avert the dire disaster of a serious frost, we are led to realize that, after all, manure has a value, and its preservers are given their just reward. What that value is, depends upon many considerations, amongst which are: The species of animal producing it, the stage of its development (whether growing, milking, or fattening), the food



Two-year-old Shorthorn Steer.

Breed champion, Smithfield, 1909. Weight at 22 months 3 weeks, 1,458 lbs.

greater will be the proportion of its constituents appearing in the liquids voided.

While there is, therefore, no definite or fixed relation between the percentage of liquid and solid excrement in any class of animals, yet, a study of a large number of analyses will enable us to come to some general conclusions. The following figures represent the average of a large number of American analyses:

PERCENTAGE COMPOSITION OF SOLID AND LIQUID EXCREMENTS.

Name.	Nitrogen		Potash		Phos. Acid
	%	%	%	%	%
Cattle excrement, solid	.29	.10	.17		
" " liquid	.58	.49	.00		
Horse excrement, solid	.44	.35	.17		
" " liquid	1.55	1.50	.00		
Sheep excrement, solid	.55	.15	.31		
" " liquid	1.95	2.26	.01		
Swine excrement, solid	.60	.13	.41		
" " liquid	.43	.83	.07		

The table shows that the liquid excrement of all the animals mentioned, except swine, is richer in nitrogen and potash than the solid excrement; and, since nitrogen is by far the most expensive of fertilizing elements, it follows that liquid excrement, pound for pound, is worth much more than the solids. The table does not show what proportion of the fertilizing constituents of the food are voided by animals in their solid and liquid excrement, respectively.

As a result of many years of investigation, Lawes and Gilbert, of the famous Rothamsted Station, Eng., have come to the conclusion that out of every 100 pounds of nitrogen in the food there are:

	Voiced in Solid Excrement.	Voiced in Liquid Excrement.
Fattening bullocks	22.6 lbs.	73.5 lbs.
Fattening sheep	16.7	79.0
Fattening pigs	22.0	63.3
Milking cows	18.1	57.4

It will be noticed that the urine contains three times, or more, the nitrogen that the solids do, and, being soluble, it is very much more valuable.

The nitrogen in the food not accounted for in the table is used by the animal in increasing its weight, or in producing milk.

These figures, as in the preceding table, are simply approximations, but they illustrate very forcibly that by far the greater part of the nitrogen voided by animals is contained in the liquid excrement.

The conclusion, then, is irresistible, that the liquid portion of animal excrements is very much more valuable, and it emphasizes the great necessity of farmers using every reasonable means of saving the liquid portion of manure. For this purpose, we should have water-tight stable floors (preferably concrete), and a sufficiency of litter. It is important that the liquids should be soaked up soon after being voided, as it is found that the liquid manure lying in the stable gutter for twenty-four hours will ferment sufficiently to allow almost one-third of its nitrogen to pass into the atmosphere.

Horse manure being of a very dry nature, it is extremely difficult to effect its thorough mixture with the litter, and for this and other reasons, it is liable to rapid fermentation, in which process the most valuable element (nitrogen) is likely to be lost. Prof. Roberts, of Cornell University, has found that horse manure, piled up alone for four or five months, loses one-half its value. To prevent this, it should be at once mixed with the manure from the cattle stables, and, where cattle are housed in loose boxes, or even tied, there is no better method than to deposit the horse manure into the cattle pens (or in the gutters for litter) each day, and draw all the manure from these loose boxes direct to the field, say, twice a week. In fact, the best results are obtained where the manure from all the farm animals is mixed very soon after it is made.

I find that in the past, the American Experimental Stations have adopted certain figures to represent the market value of nitrogen, phosphoric acid and potash in manures. From these figures, I also find that the text-book, "Science in Farming," has adopted the following standard, the range being according as the composition of solids and liquids are being dealt with. The constituents of urine, being already in solution, are of the highest value:

Nitrogen from	10 to 22 cents per lb.
Phosphoric Acid	6 to 10 cents per lb.
Potash	4 to 5 cents per lb.

I also find, from some of the latest bulletins issued from the Central Experimental Farm and Ontario Agricultural College, that these valuations (approximately, at least) are endorsed.

Upon this basis the conclusion has been reached, from many careful analyses, that a ton of ordinary fresh farmyard manure, when the horse, cattle and swine manure is all mixed, with straw used as litter, will contain:

Nitrogen	9 to 15 lbs., at say 15c., say	\$1.35
Phos. Acid	4 to 9 " " " 8 " "	.34
Potash	9 to 15 " " " 5 " "	.52
		\$2.21

So that we may say a ton of manure is worth in the neighborhood of \$2.00, at least.

Of course, the composition and value of manure depends very much upon the quality of food given the animals. There is no other single factor, with the exception of its care and preservation, which has such an influence on the value of manure as the quality of the food. The more nutritious the food, the more valuable the manure. That from grain-fed animals will be worth much more than from animals only straw-fed.

Manure from fairly-mature fattening animals is much more valuable than from young growing animals or cows giving milk, the excrement of the former containing 90 to 95 per cent., and the latter about 75 per cent., of the manurial ingredients contained in the food.

To show the relative value of feeding stuffs for furnishing plant food, the following table should be inserted.

Table showing the value of fertilizing constituents in one ton of the various fodders, according to American and English analyses, estimating nitrogen worth 12 cents, phosphoric acid 4½ cents, and potash 4½ cents per pound:

TOTAL VALUE OF FERTILIZING CONSTITUENTS PER TON OF DIFFERENT FODDERS.

Fodder.	Computed from American Analysis.	Computed from English Analysis.
	Cottonseed meal	\$19.70
Oil cake	16.77	16.19
Wheat bran	10.46	11.81
Peas	9.02	11.50
Wheat middlings	7.73	10.98
Oats	6.24	6.48
Wheat	6.65	6.22
Barley	4.77	5.74
Corn	5.36	5.54
Clover hay	7.29	8.53
Meadow hay	5.02	6.04
Wheat straw	1.98	2.25
Potatoes	1.22	1.37
Mangels	.87	1.06

The method of valuation shown in the first column is very commonly adopted in estimating the manurial value of fodders, but no allowance is made for what the animals remove in the food; that, however, may be calculated from the figures just previously given. Allowance must also be made for losses which are almost certain to occur before the manure reaches the field; but, with all deductions, the table is valuable, in giving an intelligent idea of the approximate, relative manurial values of the different foodstuffs, an important consideration in the purchase of these. Farmyard manure is the staple manure that the Canadian farmer must depend on to keep up the fertility of the soil. Practical experience of Canadian, or, more particularly, Eastern farmers has amply proven that plant food must be added to the soil if we would maintain its fertility. There is no option in this matter. It has also proven what a boon a large, well-preserved and properly-applied rich manure-heap is. When annually obtainable, it means all the difference between substantial

profit and a bare existence, between plenty and starvation. It is not only unrivalled in composition, but its value is enhanced by its action on the soil during its decay. No other manure exerts such a powerful chemical and mechanical influence, and no other can be applied to all sorts of land with such positive certainty of effect. It is also found to be peculiarly durable, and these merits are quite sufficient to account for the high estimation in which it is held by the far-seeing farmer. Its application also greatly increases the humus (vegetable matter) of the soil. This action is extremely important, because humus, besides supplying plant food, also greatly increases the amount of moisture which the soil is able to retain. Therefore, barnyard manure, which so increases the supply of humus and water-holding power of the soil, is worthy of much more care and attention than it usually receives.

If we wish to obtain the best results, it is a great mistake to allow manure to lie round the barnyard fermenting and leaching all summer long. To insure ease of application and after-cultivation, all straw used as litter should be cut. The manure can then be hauled direct from the stables, say, twice a week, and spread at once upon the land, with the least possible labor in handling, and in the best condition for application. It is very much better to allow the process of fermentation or rotting to take place in the soil, rather than in the manure-heap.

After the manure is thus applied in the green condition, and incorporated with the surface soil in spring, it starts up a fermentation which has a most beneficial effect in not only pulverizing the particles of heavy soil, but also by its chemical action, liberating and rendering available elements of plant food which the soil contains in a tied-up condition.

In closing, one point more should be emphasized, and that is the absolute futility of applying manure to a waterlogged soil. Such a soil is not in a condition to receive its beneficial effects. Once having the land properly underdrained, we may then confidently expect the direct and, to an even greater degree, the indirect benefit from the application of manure. THOS. McMILLAN, Huron Co., Ont.

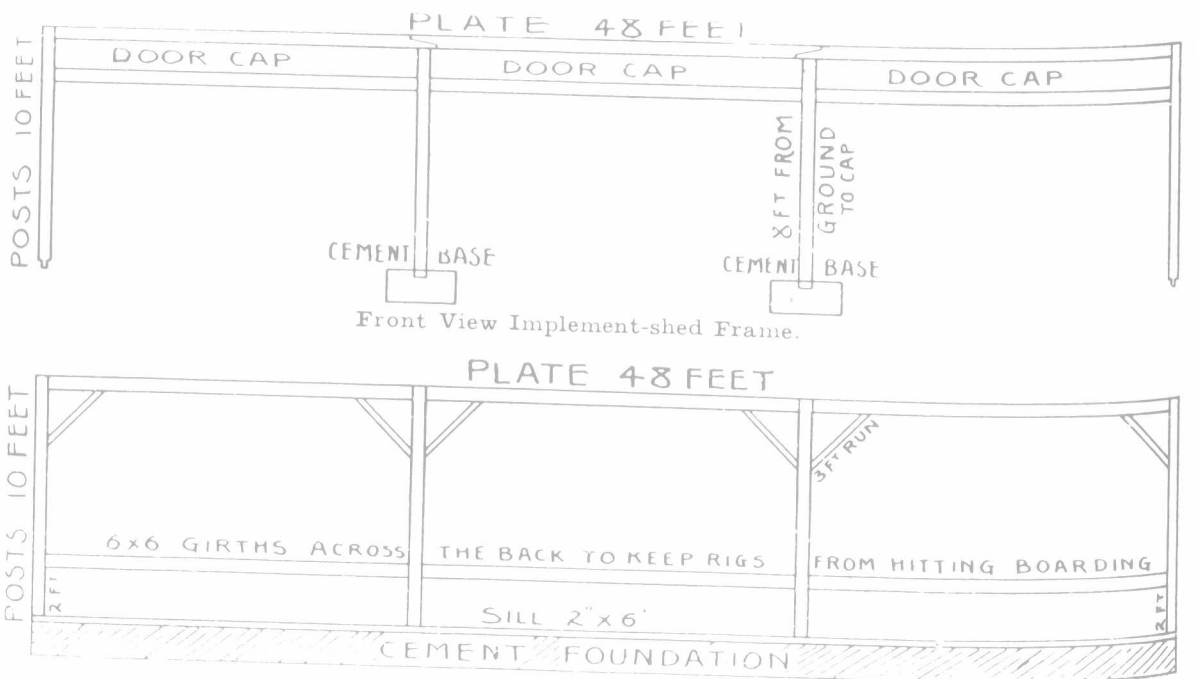
Implement House.

Editor "The Farmer's Advocate":

In "The Farmer's Advocate" of January 13th there is a request for plan of implement house, so I enclose a sketch and description of one I built last fall, which I hope may be useful. In the first place, there is a cement foundation on three sides, which is better than posts, as these will rot. Then, bedded in the cement for sills are 2 x 6-in. planks, mortised for the tenons at the foot of each post. The frame is of sawed timber, six inches square, the full bill as follows:

- 2 posts, 6 x 6 x 10 feet.
- 3 door-caps, 6 x 6 x 16 feet.
- 3 girths, 6 x 6 x 16 feet.
- 4 beams, 6 x 6 x 22 feet.
- 2 plates, 6 x 6 x 48 feet.
- 3 sills, 2 x 6—total length, 92 feet.
- 28 rafters, 2 x 4 x 14 feet.
- 1,200 feet drop siding.
- 1,300 feet sheathing, besides shingle and lumber for doors.

The above bill of timber and lumber is for a building 22 x 48 feet, which is not too big for a farm of 100 acres; in fact, I find it just small enough. On account of danger from fire, and the difficulty of handling implements in a hurry, it is better to have implement house at some distance from other buildings. I cannot give exact cost.



View of Rear Implement-shed Frame.

of my building, as about all I had to buy was lumber for doors and shingles for the roof. I should have mentioned that I used rolling doors, and think them much better than swinging ones, as they do not sag.

Simcoe Co., Ont. A SUBSCRIBER.

Steel Silos.

As inquiries concerning the merits and cost of steel silos have been coming in this winter, we have been at pains to collect evidence from farmers who have built this kind of silo, as to cost and satisfaction given.

STEEL SILOS SATISFACTORY.

It will be borne in mind that experience with steel silos is limited to a short time only, most of those from whom we have received replies having had them erected last season. There is only one opinion as to their efficiency for preserving silage. They are air-tight, and consequently there is no loss around the edges. One farmer says, "They compare favorably with cement;" another, "Silage has kept in fine condition, very little spoiled," and yet another, "Since throwing off the top, have not wasted a forkful." The unanimous report regarding silage freezing is that so far this winter there has been no trouble.

COST.

W. C. Good, Brant County, Ont., writes that his silo, of 12 feet diameter, and 33 feet in height (2½ feet of cement foundation, and 30½ feet of steel), with a galvanized roof on a wooden framework, cost, including labor, about \$200 in all. J. Telford, Waterloo County, estimates the total cost of his silo, 12 feet diameter, 35 feet high, including roof, steel ladder, and paint for both inside and out, to be \$225. Another estimate, from F. W. Rudell, Halton County, Ont., is as follows: Steel for 30-foot silo, 12 feet diameter, \$126.26; four men, two days erecting, \$16; mason, one day, \$3; freight, \$7.50; cement for foundation, \$3; board for men, \$6.75; total, \$162.51, no allowance being made for hauling from station, or for gravel or sand used for foundation. Comparing these figures with those given for cement silos, the difference is not great, but is rather in favor of the cement. Mr. Good says he would not advise an intending builder to use steel rather than cement, if gravel can be got conveniently, as cement-concrete silos are eminently satisfactory, if properly put up, while the steel silo is still something of an experiment. Others who have written strongly recommend the steel in preference to any other.

CONSTRUCTION.

One contributor gives the weight of steel for a 30 x 12-ft. silo as 4,750 pounds. A good cement foundation is necessary, with bolts for fastening down the structure imbedded in the foundation wall. Rivets for fastening plates together are sent, and farmers erect them without serious trouble, so far as heard from. Openings for doors are left at a distance of two feet apart, and steel doors to fit these are supplied.

DURABILITY.

Fear has been expressed in some quarters that the action of the acid in silage would be destructive on the steel structure. That may be, but vet. experience with steel whey tanks, which have been in use for years, shows they have stood the test, whereas cement tanks have not given good satisfaction, points the other way. So far, however, the paint supplied for the inside of steel silo does not appear to be entirely satisfactory. But this defect will probably be remedied in the near future.

Fifteen Years' Experience with Corn on P. E. Island.

The successful growing of corn for ensilage in Prince Edward Island seems to be attended with peculiarities of our own. Some who have tried it have given it up, and pronounced their efforts to be without success. Others of us, again, have continued to grow silage corn quite successfully. In our own case we have now been growing corn for upwards of 15 years, and expect to grow a larger area this year than any previous year. During this time we have had only two crops that were not a success, one of which was the second year, when we planted our corn in a low, wet field; and the other was three years ago, when we had a most unusually cold, backward season.

The nature of the soil here is a sandy loam, comparatively well drained naturally, and not seriously inclined to baking.

We have found best results to attend the growing of corn on pasture land plowed during August or September the year previous. The plowing should be done comparatively shallow, from 3½ to 5 inches deep. We then leave the land alone until the following spring, except that, if the field is at all level, we like to spread on a light dressing of manure direct from the stable. If the field is sloping, or is covered deep with snow, the manure is put on in the spring, and worked in.

The preparation of the seed bed is a very im-

portant operation. I do not think it can be overdone. We use the disk harrow and the smoothing harrow, and aim to secure a deep, fine and warm seed-bed. It is not wise to replot in the spring, as that turns up so much cold earth, and while a fine seed-bed can be quickly secured, it does not give as good results.

The flint varieties we have found satisfactory are the Angel of Midnight, Improved Longfellow, and Pierce's Prolific; Mastodon and White-cap Yellow Dent have been satisfactory dents.

All these varieties will mature fairly well almost any year, and make good silage. Last year we grew the Angel of Midnight flint, and the Mastodon and Cuban Giant dents. The flint and the Mastodon dent matured so well that we might have saved seed from them, but rush of work prevented this. We test our seed for germination, and sow about one-half bushel per acre. In sowing, we use a drill attachment to our grain seeder which sows three drills at once, and has proved entirely satisfactory. We sow about the first week of June. The summer cultivation is begun as soon as the plants are up sufficiently, and is continued throughout the summer, till the growth prevents further working. Hand-hoeing is done, if at all possible.

Regarding stage of maturity, we have not much trouble to get it to the glazing stage; and as to the yield, while I have never seen any weighed, I would say we can grow at least from 15 to 20 tons per acre, depending upon the season. There is nothing else we can grow that seems to be so much relished by the cows, and it keeps them in splendid condition. TUPPER FERGUSON. Queen's Co., P. E. I.

A Low Hay Rack.

Editor "The Farmer's Advocate":

For a long time I have been trying to work out a convenient, practical, low-down hay rack. I thought of purchasing small wheels, or cutting my own down; but had I done either of these I would not have been much further ahead, because, at the best, a rack extending over even small wheels would be much higher than I wanted to pitch; besides, small wheels, bumping over ditches and rough ground, are unsatisfactory. So, to get a low rack, and still use the large wheels, I conceived the idea of making a long axle for the rear, allowing the wheels to run on the outside of the framework, about 9 feet apart, the front ends of the frame extending outside of the front wheels, and held up in position by a hanging trestle built upon the bolster and extending over the wheels



Side view of a Low Hay Rack.

named. By this arrangement, the rack can be hung as low as we wish, about one foot from the ground. The front wheels swing or turn with the framework, the front stakes being placed about three feet behind the front wheels, allowing this. Only a short reach is required to connect with the rack proper. This season I pitched on all the grain with a short fork, without an assistant, and loaded 35 loads of cornstalks without a fork at all. For using the hay-loader, it is simply fine. Adjustable side stakes should be used in such case to prevent the wind scattering the hay, the bottom of the rack being so low down. A little lattice framework, or shield, is placed inside the hind wheels to keep the hay or grain away from them, and the sides may extend as much wider than the framework as desired. The accompanying sketch is a side view of the rack, which, I hope, will assist you to more readily understand my article. In my rack a covered stand is erected over the front wheels, in which a boy stands for driving. G. A. ANNETT. Lambton Co., Ont.

I received your "Farmer's Advocate" knife a few days ago. Many thanks. It reminds me of "The Farmer's Advocate": it is strong, bright, and full of good stuff, just what a farmer needs. I find your paper a great help to me, as I am a beginner in this country; I am not long out from Scotland. I can most heartily recommend "The Farmer's Advocate" to any farmer, and more especially the beginner. Wishing you the success you deserve. COLIN FERGUSON. Middlesex Co., Ont.

N. S. Farmers Discuss Practical Questions.

The annual meeting of the Nova Scotia Farmers' Association was held in New Glasgow, Jan. 25th to 27th, President A. E. McMahon in the chair. Tuesday morning's session was occupied with the President's address, which was short and to the point, and an excellent address by R. Robertson, Superintendent of the Maritime Experimental Farm, Nappan, on "Rotation of Crops."

ROTATION OF CROPS.

Mr. Robertson started out with the maxim that the prosperity of the whole country depends on the prosperity of the farmers, and the prosperity of the individual farmer depends on his ability to grow large crops cheaply. He strongly advocated the growing of more turnips, and the following of a short rotation, so as to get the best possible use of the barnyard manure, because, by applying a small quantity of manure frequently, much better results are obtained than by applying larger amounts at longer intervals. He liked best a three-years' rotation, viz.: Roots, mixed grain and clover, cutting the clover early for three reasons: First, it is made more palatable and more nutritious fodder; second, it is more easily cured; and third, it gives a better growth of aftermath.

The discussion on Mr. Robertson's address was animated and useful.

W. H. Woodworth considered this the most important question that could be discussed, as a proper rotation of crops, if generally adopted, would revolutionize farming in the Maritime Provinces.

In answer to a question, Mr. Robertson said a five-year rotation is practiced on a part of the Experimental Farm, and works well; that is, roots, grain, clover, grain and clover, applying the barnyard manure with the turnip crop. We are thus applying something to the soil three years out of five.

Q. Did you ever have trouble to get a stand of clover?

Mr. Robertson.—When the land has plenty of humus and is fairly well drained, we had not failed to get a stand of clover in twenty years.

Q. Are you troubled with clover roots heaving with frosts?

A. They are not so likely to if the soil has plenty of humus.

Q. What variety of clover do you sow?

A. Common red and a little alsike.

Q. How many pounds of seed per acre?

A. Not less than ten of clover, and about ten of timothy.

BALANCE ON RIGHT SIDE OF LEDGER.

Tuesday Afternoon.—The directors' report and the financial statement and auditor's report were read by the secretary, and showed that the adverse balance of one year ago had been wiped out, and at present we have a small balance on the right side of the ledger. The Exhibition Commissioners' report was read by Commissioner R. S. Starr, and adopted. The Commissioners reported an exceedingly good exhibition, but, owing to very rainy weather, the attendance was small.

The report of County Farmers' Associations was read by Supt. F. L. Fuller, showing an increase for the year of one thousand members, an increase of one hundred meetings, with a total attendance of over nine thousand.

A resolution was introduced asking for legislation looking to the eradication of such noxious weeds as ragwort, Canada thistle, etc., and a committee consisting of A. F. McMillan, Andrew McPherson, Rev. J. McPherson and C. H. Black were appointed to prepare resolutions and report.

SHEEP PROTECTION AND EXPERIMENTATION.

A resolution was adopted asking the Legislature to still further amend the Sheep Protection Act, so that every dog must be registered, and wear a collar, with a number on the collar corresponding to its registry number.

A resolution was also adopted asking the Dominion Department of Agriculture to establish an experimental sheep station somewhere in Eastern Nova Scotia. Also one asking the Provincial Department of Agriculture to institute inquiry re certain insects and fungous diseases, and to distribute bulletins giving such information.

On Tuesday evening a large public meeting was held, and addresses of welcome were presented by the Town Council, the Board of Trade of New Glasgow, and by the Pictou County Farmers' Association, which were responded to by ex-President C. H. Black. Lieut.-Governor Hon. D. C. Frazer gave one of his characteristic addresses, full of sound sense and good-humor.

OFFICERS.

Wednesday Morning.—The following officers were elected: President, H. S. Kennedy, Alma, Pictou County; Vice-President, W. H. Woodworth, Berwick, King's County; 2nd Vice-President, R. M. Jackson, Jacksonville, Cape Breton Co. Directors.—H. W. Corning, Yarmouth; Samuel Freeman, Amherst; Wm. O'Brien, Windsor Forks; A. S. McMillan, Antigonishe, and Wm. Beers, Lunenburg.

burg. Auditors—E. S. Archibald and J. P. Landry, Truro. Exhibition Commissioners—R. S. Starr, Port Williams, and C. R. H. Bryan, Durham.

SCHOOL CHILDREN COLLECT RAGWORT.

Miss Carmichael, President of the East Pictou Women's Council, addressed the Convention, explaining what the Council had done by offering prizes to the school children throughout the county for collecting and destroying ragwort, and that by that means over five million plants of this noxious and poisonous weed had been collected and destroyed.

Professor Cumming congratulated Miss Carmichael on what the Council had done, and especially in educating the children in the county. The thanks of the Association to Miss Carmichael was expressed by a standing vote.

LAND DRAINAGE.

F. L. Fuller delivered an instructive address on "Land to Be Drained, and the Reasons." Mr. Fuller said there is as much benefit derived from underdraining, by getting the land into shape to hold water, as in getting the surplus water removed from the soil. He cited experiments showing that growing crops require and use more water than falls on the soil during the growing season. If water is not taken off by drains, it must be evaporated, which uses an immense amount of heat, and makes the land cold. Drainage also enables us to work the land earlier in the spring, hence lengthens our season.

Q. How wide a strip will a drain affect?

A. It depends on the nature of the soil, and on the depth of the drain.

Q. What about the action of frost?

A. Tile should be laid below frost.

Q. Should the joints of tile be covered?

A. It is an unnecessary expense, because (1) there is no movement of the particles of soil at the depth of the drains, at any rate after one year; and (2) most of the water enters a tile drain from below, not from the top of the soil.

E. S. Archibald, of the Agricultural College, Truro, continued the discussion on this subject, and said main drains should be run along a hollow or a swale, and laterals should be run straight up the slope, not diagonally. He described the methods of taking levels, also of using the plow in assisting in digging a drain.

Q. What slope would you recommend for main drain?

A. Not less than 2 inches per 100 feet, and 3 inches is much better.

Q. What size of tile do you recommend?

A. It depends on the grade and on the amount of water; probably not less than 4 inches for main, and 2 inches for lateral.

Q. In a corksand bottom, would you put anything under the tile?

A. Yes; a board laid under the tile will be found advantageous.

Dr. Lavers reported for Committee on Sheep Industry recommending an amendment to the Sheep Protection Act, requiring all dogs to be registered, and that every dog be compelled to wear a collar with a number corresponding to his registry number.

The Committee on the Eradication of Ragwort and Other Noxious Weeds, reported recommending that legislation be enacted compelling owners of land to cut all ragwort, Canada thistles, etc., on their farms before it goes to seed, and that municipalities be required to destroy these weeds along the roadsides, and that the Government be asked to vote a sum of money to have the weeds destroyed on unoccupied lands and timber leases.

COW-TESTING.

D. Drummond, Ottawa, delivered an instructive address on "Dairying," explaining the working of cow-testing associations, and showed how the testing of one or two herds stimulated other dairymen in the same section to adopt better methods; also, the advantage of purchasing pure-bred bulls whose dams and grandams are recorded in the "Record of Performance" registry.

Q. Is there not danger of injuring cows by overfeeding, in order to make a record?

A. There is if the cow is injudiciously fed, so as to injure her digestive organs.

J. P. Landry, of the Agricultural College, at Truro, gave an address on poultry, which was illustrated by lantern slides. Mr. Landry gave many valuable hints, and showed himself well posted, and a practical poultryman.

The Committee on Agriculture in Our Common Schools endorsed the action of the Council of Public Instruction in giving instruction in agriculture to the students at the Normal School, and recommended that some essays on agriculture be prepared, from well educated agriculturists, and printed in booklet form, to be used as reading lessons occasionally, in our rural schools.

A committee composed of A. E. McMahon, A. W. McMillan and C. H. Black was appointed to appear before the Legislature to urge the enactment of the legislation recommended by this Association.

Sugarmaking in New Brunswick.

Editor "The Farmer's Advocate":

Away back in the early fifties, we in this country used the little "causeau," made from birch-bark, to catch sap in; it would hold all the way from two quarts to two gallons. Then we boiled over open fires in large pots; later on, we had our pots furnished in.

About thirty years ago we used an evaporator, with one large, flat pan, with corrugated bottom, and self-feeder, which was a great improvement on the old pot system; and also, about that time, began to use tin buckets for catching the sap. After trying different evaporators, we are now using an up-to-date evaporator, with all its modern appliances, which we think is very nearly complete.

We will take for our example a sugar bush of 1,000 trees. Then, you require an evaporator about 3 x 12 feet, with a 10-barrel storage tank and 4-barrel gathering tank. But, in the first place, you need a good building, about 16 x 32 feet, with 8-foot posts. This is big enough to use one end for storing wood, if you don't have to live in the camp; but you need at least 20 feet for boiling-room. This building could be put up here for about \$100; this evaporator will cost \$115; storage and gathering tanks, \$25; 1,000 sap buckets, at \$15 per hundred, \$150. You can get cheaper tins than this, but we think it pays to get the best, and if they are well painted, they will last a lifetime.

You need, also, a sugaring-off arch, consisting of stove and pan that will cost \$15. Oh, yes, and 1,000 sap spouts, \$25. I think this is about an outfit, with exception of gathering pails and sugar molds, which, we will say, will cost \$10. If you see fit, you can get covers for your sap buckets, which will cost from \$4.50 to \$6.00 per hundred. We have not used them much yet, but they are very successful in stormy weather. This gives a complete outfit, costing \$500.

Well, now as to production. Here we get from 1,000 to 2,000 pounds of sugar per year, but I understand the trees yield more in Quebec. If it is a good place, the average yield is from 1,500 to 1,600 pounds per year. We have market here for all the sugar we can produce, if it be the right kind of an article. As for prices, forty or fifty years ago we considered 10 cents per pound a good price for sugar, but later, as we made better sugar, we got a better price. I think at present the Maritime Provinces furnish the best market in Canada for it; we have no trouble in getting \$15 per hundred. Syrup is worth about \$1.50 per imperial gallon; we only put up syrup when we have an order for it, as the sugar is more easily handled.

I pay \$7.00 per hundred for getting my sugar manufactured and shipped.

As far as tanning is concerned, almost anyone can tap with Grimm sap spouts. We like to gather up all the sap each day, and boil it, as it makes a better article. Particularly is it not well to keep the sap after it is once gathered. We draw the syrup off frequently. This is something we cannot easily explain to one who does not understand it. Then we use a syrup settler, which I forgot to mention in our outfit, which will cost about \$5. We also use just an ordinary flannel strainer, like blanketing.

WM. A. COLPITTS.

Success on a New Brunswick Farm SECOND-PRIZE ESSAY IN OUR SMALLER-FARMS COMPETITION.

After four years' experience in Ohio, several Western States, and the Canadian West, I came East, and bought a 70-acre farm. I paid \$500 down, the rest on mortgage, to be paid in hundred-dollar instalments for nine years. I had seven sheep, one pig, one mare, two cows and calves, twelve hens, a turkey and three geese, besides a wife and two small children, and about \$100 of debts for machinery.

The buildings were fairly good, but set to poor advantage, and the land was rich, but had never had seed, except the sweepings of the barn floor. About twenty acres was in wood poles and logs, seven acres in salt marsh, which was converted into broadleaf, worth \$100 per acre, by the expenditure of \$40 and one man's work for four weeks (three marsh-owners worked together and put in sluice); three acres was in a barren state, partly grown over with cranberries, which were so grown up with grass that they bore only from one to three bushels per year. A deep ditch cleared the land of water; then it was plowed, and cranberry sods were planted, and covered with about five inches of sand (which was close at hand). For three years it took about, as much work as the same amount of turnips; after that the cranberries took care of themselves, and bore from 58 to 100 bushels per acre; and, as we have ready sale at from \$1.25 to \$1.75 per bushel, we find them the best money makers on the farm.

As we were near a creek, we found ducks a very paying fowl, where, in most cases, they eat their heads off. A turkey, given our little boy, has produced us an income of from \$20 to \$30 per year. I may state that when one gets a turkey that

comes home at night, and raises six to ten turkeys first year, he is foolish to sell her and keep young ones, as the old turkeys hatch stronger birds than the young. Our geese brought in smaller profits, accordingly, but are a sure crop, and, with good prices, pay very well. We started with 12 hens, 6 of which were pure-bred Barred Plymouth Rocks. We got a pure-bred cockerel in exchange for a day's butchering, and the second year kept only first-class pure-breds, as we find them as good layers as any when young ones are kept, and they make splendid mothers. We separate the yearlings from the two-year-olds in spring, and set only the latter's eggs. Then, when they sit, we send to market, and find they compare favorably with turkey on the table.

To keep hens laying, fatten turkeys, and make poultry-keeping a success, I find buildings must be light, vermin-proof, and well protected from weasels, skunks, rats, etc. A good rat cat is well worth a cup of new milk night and morning, and a kind, obedient dog has saved us many dollars, as well as steps, as poultry dogged will seldom bother grain or garden more than twice.

A ten-acre field that was so wet it had never been used for much but pasture, I tiled bit by bit (thanks to my Ohio experience). The tiles ran into a creek, and I did the work in summer myself, as it did not require an expert. I did not count the exact cost, as I did not count my days' work, but think \$15 per acre would cover it. On this land I set out raspberries (could get all I wanted for digging up). Five dollars bought a lot of currants and gooseberries, and I have set out twelve apple trees a year, as I have gotten the ground tilled. I have sold Yellow Transparent, Duchess and Red Astrachan apples. Although the orchard has not brought in much money, it is in a fair way to do so, and is a great satisfaction to have. I do not crop the orchard, except with red clover. I cut one crop for the pigs, calves, etc., and the aftermath I let remain on ground. The next year I plow it all under. I may say I would rather have one acre of tilled ground for orchard than 2½ without.

Our grade Shorthorn cows we traded for two first-class Jerseys, and from them we raise one calf a year, besides a rig in summer and one in winter. Our butter and eggs run our grocery account, and our two pigs, calf (when grown) and a sheep, more than keep us in meat.

We started with seven sheep, and have never lost more than ten. About four acres of sandy, hilly land, growing sand peas and grass, I fenced in for sheep pasture, and next to it I grew an acre of rane in three lots, so I could let the sheep in first one piece and then another.

I started with a 13-cwt. mare four years old, but found I had to have another horse, so bought a mare 19 years old that was blemished and in poor condition for \$25. From her I raised three colts, and from the other two, the mares having them year about. Since the old mare is done, I break in colts, and then sell after they are well broken-in.

To sum up, I have 5 acres in sheep pasture, 20 acres in rough pasture and woods for sheep, young cattle and cows in five-time; 3 acres of cranberries; 7 acres of marsh; 10-acre field in orchard (3 acres of it unplanted is in garden, alfalfa or hay); 10 acres in grain and turnips; 5 acres in corn and green oats; 10 acres in hay. My grain field this year will be in hay, mostly clover, next year, and pasture the third year. In August, after hay field is cut, I pasture it off, and let the old pasture grow up in clover, which I plow under in September.

To meet our first payments, I went to woods in winter, my wife doing the barn work alone. Now our buildings are in first-class order, fences will last a lifetime, our small amount of stock is first-quality, and our poultry and small fruits are money-makers.

My best investment was a saving, good-natured wife who is always willing to help out of doors, and to whom I give all the credit of our success.

Through our years of struggle I carried a \$1,000 policy on my life and now that we are clear of debt, I have added one for my son and daughter. Eight years ago we were indeed poor, but now we enjoy no man, for though we keep no bank account, yet our farm has trebled in value, and our prospects are of the best.

Westmoreland Co., N. B. R. G. OULTON.

There is an old adage that what man has done man can do. We often think of it when hearing of a man growing corn, alfalfa, or some other money-making crop, where his neighbors have failed and given up. There is a rather general opinion in the Maritime Provinces that corn-growing cannot be successfully carried on in that region, except in very special circumstances and extra favorable seasons; yet we have lately received two letters from Prince Edward Island farmers who have grown it very successfully, one for fifteen years, with only two failures. No doubt, locality, soil, etc., have an important influence, but we fail to discern that these men are situated so very peculiarly. It looks as though methods and perseverance have a great deal to do with success. Grit is a great thing.

THE DAIRY.

Factory Boilers and Their Care.

During the cheese and butter making season everything is hustle and bustle with the average factoryman. There is no time for anything else but to do the necessary work. When the flow of milk was at its highest, some found themselves handicapped on account of not having boilers large enough to furnish sufficient steam to do their work, so during the slack time this winter changes will be made. Small boilers will be discarded, displaced by larger ones. Some new factories will be built, and boilers will be needed for these. Hence, a few hints regarding the selection, setting and care of the boiler, coupled with the construction of the arch and chimney, so as to get the best results from the economic viewpoint, should be matters of great importance to the cheese and butter manufacturer.

When selecting a boiler, get one of sufficient capacity to furnish all the steam required, without forcing the fire under it. A boiler cannot be forced beyond its capacity without injuring it. There would also be a waste of time and fuel forcing a steam boiler.

In setting a boiler, the place most convenient should be considered. Mistakes have been made by placing the boiler too far from the work required of it. Some are set below the floor-level, which makes it very unhandy. It is better to have the boiler set close to the place where the most steam is used; it will require less pipe, which means less steam-condensing, and can be looked after by fewer steps.

A good substantial foundation for the arch or furnace should be provided. The arch is really a part of the boiler, and unless it is properly built, good results cannot be obtained.

It is best to get a plan for building an arch from some reliable boiler-maker; then have the masonry work done by an expert. Provide good bricks for lining, and have them laid with fire-clay. Make the side walls of the arch thick with good common brick. This will make it more substantial, and retain the heat longer, thus lessening the cost of fuel. Where coal is being used for fuel, the chimney should be built of brick; a metal chimney will not last long. The area should be at least one-fifth greater than the combined area of all the flues. The height depends largely upon its location; the higher, the better.

Boilers newly set should not have fire put under them until the mortar of the brickwork has had time to harden naturally. When fire is started, heat very slowly, and let the steam go through all the pipes before any pressure is put on them.

Before lighting the fire in the morning, care should be taken to see that the boiler has sufficient water in it. The glass gauge in the water column cannot always be depended on at sight; therefore, it is best to open the tap at the bottom of the glass to make sure that the pipes leading to or from it are not stopped with mud or scale. See that the safety valve is in working order. This is the most important valve in connection with the boiler. Every boiler should have a blow-off pipe at the bottom. In addition to this, it should have a surface blow-off, or some "summing" apparatus. The blow-off at the bottom should be opened enough each day to let any lime or mud that might have accumulated escape. If this is not done, there is danger of the pipe being filled with dirt, thus excluding the water from the pipe. Then there is a danger of it becoming hot and bursting, causing a great deal of trouble.

If the pipe from the pump or ejector which feeds the water into the boiler be attached so that the water will be fed in through the blow-off pipe, this danger will be largely overcome.

As there are also more or less steam pipes about the factory that need repairing, it is quite necessary that the maker should know how to do his own pipe-fitting.

For ordinary work, the tools required are: Pipe tongs, cutter, vise, and stock and dies. With these at hand, any pipes or joints that may be leaking can be quickly repaired, and it will save the expense of sending for a steam-fitter. Steam escaping from bad joints or leaking valves makes a disagreeable noise, and is money evaporating into the air. The engine-bed or foundation should be solid. If possible, have the engine in a room separate from the boiler, as there is always more or less ashes and dust from the furnace and flues. This makes it difficult to keep clean; any sand or grit lodging on the slides help to wear them out sooner than would otherwise be the case. Some of the chief points about the engine to be observed are: See that it is kept clean, well oiled, and properly packed to prevent steam from leaking.

Before starting the engine, open the taps of the cylinder to let the water out, turn the fly-wheel over once, then open the throttle valve gradually until the engine gets in full motion.

Norfolk County, GEO. TRAVIS.

Dairy Temperament.

A PARTICULARLY PITHY AND SPICY ARTICLE BY MR. RICE.

We have reached a turning-point in the marketing in our dairy produce. Though the stream is but a little rivulet as yet, it is worth while, at this time, to consider what are the chances of its growing. The fear has been expressed that the American Government would soon put a stop to the shipment of cream by higher duties.

Judging by the present "row" the consumers are making, they have enough of "protection," when it applies to their food bill. Higher duties would benefit the farmers, but farmers never get any favors, or even justice, from Governments; they are like an unorganized mob—not able to strike so effectively—so the politicians do not fear them as much as they do the organized-labor people. The American milk producer, anyway, has not much to complain of these days, as those in New York State, at least, are getting \$2.10 per 100 pounds for their milk, delivered at the nearest milk station on the railway. This goes over 400 miles to the cities, which serves, also, to show what a scarcity there is of milk, when it has to be gathered from such great distances. The consumers in the States are increasing much faster than the producers. The next point to consider is, are the producers increasing their output?

As a matter of fact, I do not consider the American people, as a nation, any more than Canadians, have what we might call the "dairy temperament," or, to be exact, they are not real dairymen. To make this more clear, as to what a dairymen is, or what one has to do to be entitled to the name of dairymen: if a man runs a bee tree and takes the honey we do not call him an apiarist. Why, then, should a man who roos a cow or her calf and takes her milk be called a dairymen? I don't think we should call anyone who does not get at least 6,000 pounds of milk yearly from his cows a dairymen. Several obtain much more than this, in fact. The greatest records ever made anywhere have been made in the United States and Canada, but they are the exception, rather than the rule. With such notable examples of what a good cow can do, it set many, especially business and professional people, wondering why others don't do the same. The reason is not that others are stupid or ignorant, in the general acceptance of the terms, but that they have not the dairy temperament. It is a hundred to one that those selfsame critics would do no better if they tried.

One upon line has been printed about balanced rations, what to feed, etc., but how much has it helped? There is very little increase in yearly yield of the majority of herds. The 3,000-pound-per-year cow is still with us, and will remain for some time. Take two neighbors: one will send in as much milk in a year to a factory from 10 cows as another will from 20 cows. And this is not because one is a brainier or smarter man in ordinary affairs, but he has the dairy temperament; he is steadier and more regular in the care of his stock. How necessary this is, will be seen if we but consider what a cow has to contend with. Nature did not intend her to give but enough to feed her young. When a cow gives only 3,000 pounds of milk a year, it puts quite a tax upon her system; if we want twice this, three, four, even eight times this quantity, it is at once apparent we are making great demands upon her. All this increase must come through increased work of her jaws, stomach, lungs, etc.; we are really working the most delicate of machinery, which is easily put out of order when not managed right. This organization of hers is affected greatly by changes both of temperature and irregularity. When it gets very warm, 90 degrees or so, the digestion of her food makes her altogether too hot when doing enough for big yields of milk. For this reason, dairymen find it best to have large yielders freshen in the winter, when it is easier to keep an even temperature, and avoid the extremes of heat and cold alike. Many do this and get big yields; others do not, and cannot get big yields. It would be utterly impossible for a cow to make a large milk yield under conditions to which she is often subjected. When doing good work, the pores of her skin are opened up; sometimes, indeed, she sweats. Therefore, the dairymen finds it a great benefit to her to give her a good brushing, and keep her hair and skin in good condition. If she is turned out in the cold, and stands there, the cold chills her just as it would a horse that had been warmed up and left standing in the cold; her pores close up, and many such chills put her all out of condition. Then, if she is kept in a poorly-ventilated place, her lungs cannot do such effective work. It is really through her lungs the increase comes; so that, when fresh air of the proper temperature is not provided, we immediately decrease her power of production; besides, breathing the impure air will injure her lungs, if continued any length of time. The right temperature and pure air can both be had, and are provided by those who obtain large yields. Man, as a rule, studies his own comfort and convenience first, last, and all the time; such little things are beneath his attention;

steadiness of purpose and daily routine is irksome to the great majority.

Temperamentally, most people on this continent seem about like the climate—changeable. The cow, making her milk through the delicate organism that she does, wants a very watchful caretaker to protect her from sudden changes. If we had June weather all the milking period, she would be able to care for herself, and many more would get large milk yields, but not all, even then, because they would not milk her regularly. They would want to lie in bed longer Sunday morning, or stay at the circus later some night. There are many who would not even milk her regularly.

And, to get the best results, it is necessary to give her good care for two or three years to develop her lungs and digestive organs. This takes time and patience. So that this dairy temperament might be defined as the devotion of a mother, the faithfulness of a nurse, and the tenacity of a political-office seeker (or porous plaster).

Temperamentally, the people of this continent, or the great majority, are not so constituted as to get great results from dairy cows, and the milk yield must continue low. If milk produce was very high in price, and other things lower, then there would be greater development, because we do like the almighty dollars; but other things are high in price, also. To those who can and do give the cow the best care, there will be big money, as the demand for dairy produce will continue to increase faster than the production. Duty or no duty, the American people will want more of our product yearly, and it is very probable that Denmark and Holland may be shipping their produce to the States soon, as the people in those countries have the dairy temperament, and to this is due their large average production. It is not characteristic of this continent, and history shows us that the temperament of a people does not change much. Anyone who has the temperament to make a success with the dairy cow soon finds his operations restricted on account of not getting the right help; even a poor milker is sufficient to discount his efforts. Milking is generally the last job, and the sooner it is over, the sooner the day is done. And cows are not often milked right; a half cup of milk is not much in itself, but it means success or failure. Failure to take it from the cow not only causes her to shrink, but may bring on an attack of garget, which is caused by poor milkers, with well-fed cows. Very often the temperament of people is well illustrated by the railway brakeman: There is seemingly no trouble to get men for this job, and yet the risk of losing life or limb is great, hours irregular, with but little chance of promotion (except to the other world). Human nature craves changes and excitement, to a greater or less extent, and the dairy cow does not want excitement or change.

She is capable of wonderful things if handled right, and man is through her able to produce more food for the human race than by any other animal, but man must do his share. A man can travel much faster (when he knows how to use it) on a bicycle than he can walk, yet the only power is his legs, the same as before. He is using a machine to advantage, but he must be on the lookout for stones and snags, and keep a steady balance, else he will come to grief. When he falls off a few times, it takes the pleasure off also. There is profit and pleasure in a large-yielding cow to those that will use her right, and not get careless and fall off. There is pleasure in riding a tandem "bike," if the other fellow does his share; but if he does not, and a fall is the result, there is no pleasure to it (unless, perhaps, he gets hurt the worst). Something the same with a cow: one has to suffer for the misdeeds of another; the trouble is that the wrong man is sure to suffer. The success of the dairymen in Holland and Denmark is due to their temperament; steady and industrious, with mostly small farms and herds, which receive the first attention of their owners. Climate is more equitable, and necessity impels. Land is worth \$300 or \$400 per acre, or, if rented, very high. It is "root hog, or die." A balanced man is of even greater importance to the cow than a balanced ration. Great success in dairying is only to be obtained by those who have or will cultivate the dairy temperament.

GEO. RICE.

About the ideal thing in cream vats has been installed in the creamery department at the Ontario Agricultural College. It is a Canadian invention, and is called "The Century Cooler and Cream Vat," patented in 1907 by Z. S. Lawrence, West Shefford, Que. It is in the form of a large upright, cylindrical tank, with water circulation around the outside of it, and also under the upper basin, into which the cream flows first. It has a holding capacity of about 3,000 pounds, and about 2,000 pounds of cream per hour can be run over it. Running at that rate, by the time the creameryman is through washing up the cream taken direct from the pasturizer will be down to within 2 per cent. of the water used. The essential feature is an internal apparatus for keeping the cream whirling constantly against the cold-water reservoir around the outside.

Methods and Returns from a Large Herd.

FIRST-PRIZE ACCOUNT OF "A YEAR WITH A DAIRY HERD."

Editor "The Farmer's Advocate":

As dairying is my principal branch of farming, I am anxious to learn all I can in that line. The prizes you offer should bring out some information. Quite frequently we hear of large yields from herds, but seldom ever what the cost has been to produce the yield. In the competition for your prizes, that will be brought out, which will be of great interest to your readers. It is not what the cows produce, but, Do they pay, or do they not? Previous to four years ago, I kept from 25 to 30 cows, and 30 brood sows, and sold from \$1,200 to \$1,500 worth of milk, and from \$2,000 to \$3,000 worth of pork. I could tell just what I fed my hogs, and what I received for them. As I was losing money the last year with hogs, and a powdered-milk factory opened up in Brownsville, with prospects of better prices for milk, I dropped the hogs and increased my herd of cows to 70. Since then dairying has been my hobby, but I must confess I have a hankering after the plump little pigs, with their tails curled up over their backs, and especially with pork at \$8.25 per cwt. But, while I am sending my milk to the Canadian Milk Product Co., and get nothing back but the cash, pigs are out of the question. As my revenue depends entirely on the cows, I am seeking all the information I can find, and am willing to give what little experience I have had in return. As I said, four years ago I increased my herd to 70 cows. That year they produced 360,431 pounds milk, an average of 5,149 pounds; the next year, 411,027 pounds, an average of 5,871 pounds. The next year I reduced my herd to 65 cows, which produced 403,714 pounds, an average of 6,211 pounds. Last year (1909) I again had 70 cows, including seven two-year-old heifers, which gave 469,654 pounds, an average of 6,708 pounds per cow. Considering the size of herd and very dry weather, this is not so bad for common grade cows, with perhaps more Shorthorn blood than any other kind. There is an increase in four years of 1,664 pounds per cow; 20 of the herd averaged 8,724 pounds. The most of the improvement in the herd has been accomplished by keeping records of each cow, weighing three times a month, and culling out. If I am spared for four more years, and continue in the business, I hope to have a herd of 70 cows that will average 8,000 pounds.

Now, as to feed, I have not much to say, only build silos and grow corn. In the year 1907 my cows had \$604.31 worth of oat chop, bran and shorts; 1908, \$627.64 worth oat chop, bran and shorts; 1909, \$819.93 worth oil cake, oat chop, and bran. This year I valued the chop at \$1.25 per cwt.; previous years, \$1.00. Bran was \$2.00 per ton higher. In September and October I fed \$134 worth of bran with silage, on account of drouth. These conditions would have made their feed about equal to previous years. I had no roots this year, but had in previous years. I attribute the increased yield to better cows and more regular and careful feeding.

As to care of herd during 1909, I try to have my cows freshening during March and April. Have been very successful in that; had only one farrow cow last year. My experience is that cows freshening then, and well fed until grass grows, will give more milk than if they freshen any other time in the year. I keep two pure-bred Holstein bulls, two or three years old; let one out every alternate night after the first of June. Have started raising heifer calves from my best cows, to improve and keep up my herd. Raised 13 last year, and fed them two quarts of milk twice a day for a month, then one quart twice a day, with oil cake, for six weeks, making a total of milk fed to calves of 6,225 pounds.

As to feed for cows, bought ten tons oil cake last spring, at \$32 per ton; fed about 7 tons with oat chop on ensilage up until 24th of May; then, on July 15th, commenced feeding silage twice a day, with 2 pounds oil cake per feed. First of August I commenced feeding three times a day, and have continued feeding silage three times a day until the present time. My oil cake ran out the first of September (horses and calves had about a ton); since then I have fed bran. My method of feeding in the stable last fall has been: Silage and bran, five o'clock in the morning; a little salt after milking every morning; clover hay at eight o'clock; small feed of ensilage and bran at 11:30; cows let out after dinner for an hour; ensilage and bran at 4; oat straw at 8 o'clock.

I think my cows have done very well with this routine of feed. Will give cash received for June and following months: June, \$650; July, \$656; August, \$601; July and August, oil cake with ensilage; September, \$610; October, \$662; November, \$549; December, \$444; a little wheat bran with silage the last four months. My corn this last year was good, well cared, and ripe enough for good silage. Have two silos: one tub, 20 feet, by 42 feet high; one cement, 16 feet by 40 feet. Had 50 acres corn; filled them

both; refilled the big one. Everyone who comes in my stables says my cows look well.

I want good milkers; each one milks his own cows. A poor milker will soon spoil the best cow. I found another advantage in weighing milk: A new hand started milking; when we weighed the milk, in looking over the weights, I saw that four of his cows were down in their milk. I went to try them, but they would not give it to me. I knew there was milk there. I fed them a little chop, then got 18 pounds of milk. He never milked those cows again. I give two months' rest; rather give them more than less. When dry, get nothing but hay and straw until they begin to spring, then feed a little oat chop. They are closely watched after the first of March. Try to keep every cow at her best, as one sick cow soon pulls down the average. One man does all the feeding and care of the cows, yearlings and calves, except cleaning the stables; they are cleaned with the sleigh or wagon, and manure is drawn to the field. There are water-bowls in the stable.

As to cost of maintenance of herd, three years ago I started to raise calves for this purpose; think 10 or 12 each year will do it. I feed the calves well the first winter: clover hay, turnips and chop twice a day; grow a few turnips just for calves.

As to cost of milking and running the farm, value of hay and pasture, 50 acres corn in silo, value of manure, interest on capital invested, will just give a short summary of receipts and expenditures, and let you and your readers (if you see fit to publish this) place your own values and draw your own conclusions. Will first give expenditures:

EXPENDITURE.	
300 acres, value \$30,000 stock and implements, \$6,000; \$36,000, at 5%	\$1,800.00
Hired help	1,530.61
10 tons oil cake, at \$32 per ton	322.50
Bran	285.99
20 bush. clover seed, at \$6.50; 6 bush. timothy, at \$3.25	149.50
Taxes, \$120.08; threshing, \$72	192.08
60 cords wood for men	120.00
500 pounds twine, at 10c.; \$50; 15½ bush. seed corn, \$19.37	69.37
Total expenditure	\$4,470.05

As I have good wheat land, I always prepare 25 or 30 acres of sod for wheat. Am pretty sure of 800 to 1,000 bushels every year; I need the straw for bedding.

RECEIPTS.	
Cash for milk	\$5,401.74
878 bush. wheat, at \$1.02	895.56
Sold \$132 worth of oats and barley	132.00
57 calf skins	57.00
Total receipts	\$6,486.30
Expenditure	4,470.05
Balance for my labor and incidentals	\$2,016.25

I might say the condensory was closed March, April, and most of May, for enlarging their plant. I sent milk to cheese factory. If I had received condensory prices for those months, I would have got \$250.04, which would have made an average of \$80.73 per cow, and given me a balance of \$2,216.29. I got \$163 extra for my milk, being above the standard test. Some may think the bill for help a little high. My help are all married men, and board themselves. I furnish house, wood and garden for them. Silo-filling is a little expensive. Have my own engine and box.

In conclusion, would say I have a good herdsman, and some of my cows that respond to their feed will not go hungry this year, and I will have the satisfaction of knowing what he can make common grades do. Have tried alfalfa two years; lost it the first winter each time; will try 20 acres again this spring, with Canadian-grown seed, Oxford Co., Ont. S. A. FREEMAN.

POULTRY.

A Case of Chicken Fever and its Outcome.

(By Winner of Second Prize in the "Peerless Poultry for Profit" Contest, 1909.)

It was in the fall of 1907 that I caught the chicken fever—or, rather, it caught me. I had it in such a virulent form that in a few days I had the back portion of my city lot smothered with chickens of all ages and colors.

What I intended to do, I did not as yet stop to consider, being content to sit around and watch these marvellous beauties disport themselves at my expense.

But the inevitable change was not long in coming, for, on picking up the local paper, I saw where the Poultry Association were going to have a show. The fever took an acute turn, and

when the show opened I was splendidly represented by a trio of Golden Wyandottes, of wonderful proportions, for which I had grudgingly parted with \$3.50.

Imagine my joy when I won 1st cock, 1st and 2nd hen (I was the only exhibitor of Golden Wyandottes, and with what feelings of contempt and scorn I viewed the other glorious specimens in my yard on my return. Right merrily sang the axe for a while, and when I got through I had nothing left but my Madison Square winners.

With the money obtained from the local butcher for my slaughtered pets, I bought a pen of Buff Wyandottes from a noted breeder, and then only did I begin to realize the pleasure to be derived from owning pure-bred birds. It was now the Golden's turn to go, and go they did, for I saw they were as far from being a "Dotte" as any of my mongrels; but they had fair color, and that let them out.

The land at my disposal consisted of my own lot, 40 x 125, but about one-half acre adjoining was vacant, and, being covered with small shrubs, made an admirable summer home. For buildings, I had everything from a grocery box to a lean-to, of various forms and sizes, for I had not yet got the knowledge into my fevered head that "a good bird poorly housed is a poor bird after all."

During that summer I purchased a breeding trio of Buff Rocks which the breeders had used themselves, and from which eggs had been sold for \$8 a setting, as I had by this time determined upon the breed and color I wanted; and having learned from the pile of poultry magazines, which by this time were pouring into my home, that this was the best way to start, I went in as deep as my means would allow.

Moving that fall into a new home on the edge of the city, where I had acres of good vacant land adjoining, I determined to start properly, using the knowledge gleaned from articles in the poultry press, which I had been greedily devouring for about a year.

I built a house 12 x 24, after the curtain-front style used on the Maine Station Farm, and with my Buff Rocks and Wyandottes started the new year.

I gave the trio of Rocks 8 x 12 feet, and the Wyandottes (17 in number) 16 x 12; and as eggs were selling for 75 cents at the door, and my birds laying like the 200-eggers I had been reading about, I began, on January 1st, to keep account of receipts and expenditures, a copy of which, to September 1st, I enclose.

On February 11th I started my incubator, with 120 eggs, and on March 3rd was pleased and surprised to get 98 strong, husky chicks. These were put right outside in the brooder on the morning of the 5th, and on the 29th were put into cold brooders, to make room for the next hatch, which totalled 105 chicks from 120 eggs. It was very cold here at this time, but these chicks paid no attention to that; they just hustled for their feed, and grew like weeds.

Here are my incubator operations for the season, and I think them extremely good, as there were 110 eggs from the yards of well-known breeders included, some of which had been on the road for four days: Eggs set, 350; fertile, 298; hatches, 282; alive June 1st, 278.

I followed instructions as sent out by the incubator manufacturer pretty well, but, as any machine must have fertile eggs to turn out chicks, this is where I studied the most.

I used a dry mash, fed in hoppers, consisting of equal parts of bran, shorts, corn meal, ground oats, gluten meal and beef scraps, which was open before them all the time. Fed a pint of wheat in deep litter in the morning; either sprouted oats or cabbage or green bone at noon, and a pint of barley at night. Shell, grit, charcoal, dry ground bone, and clean water, were before them always. The water was replenished two or three times a day during cold weather, and always emptied out at night.

The only tonic I used (and that only about three times all spring) was Douglas' Mixture, which is made as follows: ½ ounce sulphuric acid, 8 ounces sulphate of iron. Dissolve iron in one gallon water, and then add acid. Dose: 1 tablespoon to a pint of drinking water.

In brooding chicks, I did not give anything for 72 hours but pure water, with chill off, and for first ten days they got nothing but granulated oats, chick grit, fine charcoal, and once a day a small sprinkling of chick feed in litter about four inches thick. When ten days old, oats was discontinued, and cracked wheat, sprouted oats and dry mash was fed, same as used for fowl, but only one part of beef scrap, as from tenth day they got all the skim milk they wanted, and mash kept before them all the time from now on.

I consider skim milk and sprouted oats the finest things on earth for growing chicks, and I don't think you can overfeed on either.

In conclusion, permit me to suggest, for the benefit of the novice, the things which, from my experience, I found most essential to success, and that spell profit:

1. Good vigorous, pure-bred stock.
2. Fresh air—always.
3. Absolute cleanliness.

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4. Pure water (clean your fountains).
5. Ample green food.
6. Abundant exercise.
7. All the good sound grain your birds will eat, either ground or whole—but let variety be your hobby.
8. A good incubator and brooder.
9. If you have room for forty birds, keep twenty.

Receipts and expenditures from January 1st to Sept. 1st, 1909, when entire flock was sold to a poultry farm:

EXPENDITURE.	
Stock on hand Jan. 1st, 20 birds.....	\$ 60.00
Eggs for hatching	35.00
Feed	82.00
Incubator and brooder	38.00
Extra male, and express on same	12.85
Straw, fountains, coal oil, and other small extras	9.10
Net profit	190.15
	\$427.10

RECEIPTS.	
123 doz. eggs, at average of 45c.....	\$ 55.35
17 settings, at \$2.00	34.00
210 eggs used in machine	10.50
169 broilers, at 25 cents	42.25
Live fowl sold, young and old, 60 head.....	57.00
137 birds to poultry farm	200.00
Incubator and brooder, less depreciation.....	28.00
	\$427.10

Average egg yield per bird for 8 months, 114; feed cost, per bird (adult), \$1.28; net profit for adult bird for 8 months, \$4.72.

J. W. RUSSELL.

Thunder Bay District, Ont.

GARDEN & ORCHARD.

San Jose Spreading in Ontario.

Editor "The Farmer's Advocate":

San Jose scale is spreading in Ontario. In most municipalities which I have visited during the past year, I have found scale, more or less.

What surprises me is to find such Townships as Louth, Grantham, and Niagara, all in the peach belt, not having local inspectors to inspect the orchards where trees are badly infested with scale.

There are about ten municipalities which have local inspectors, in the Province, and all are doing good work.

North Grimsby and Saltfleet Townships I cannot pass without commenting on the excellent work being done by the inspectors, and the way in which the growers are holding it in check by thorough spraying.

Leamington has taken up spraying, so that this spring a large number of peach trees are going to be planted.

Now that the growers can buy the lime and sulphur prepared, I expect to see greater advancement in the way of general spraying of peach orchards this coming spring. Many apple orchards in Essex Co. are nearly a total ruin by the scale. The Dept. of Agriculture is doing everything that possibly can be done. All stock in the nurseries is inspected during August and September by inspectors sent by the Department, every tree carefully looked over, and when found with scale, trees are broken down, and nurserymen notified to take out and burn.

I have visited a number of the nurseries the past season, and found the nurserymen doing all that is possible to keep the stock free from scale. I find the nurserymen have a good deal to fight against. Surrounding most of our nurseries are old apple orchards, and line fences, with all kinds of trees growing, which are infested badly with scale, and breeding spots for the same.

R. H. LEWIS.

Provincial (Ontario) San Jose Scale Inspector.

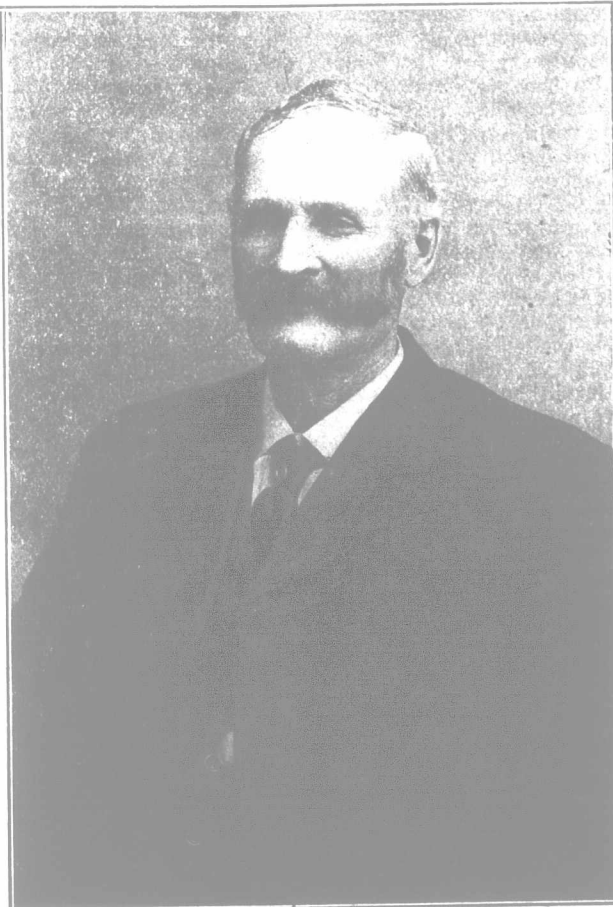
Census of Fruit Acreage.

Editor "The Farmer's Advocate":

The fruit-growers of the Niagara Peninsula are awakening to the needs of keeping better posted in many of their lines. At the last meeting, a strong committee, consisting of one grower from each township, was appointed to obtain a census of the acreage planted with the several varieties of fruits; later the yield can be easily estimated, and this census will be taken yearly to keep posted on the increase of planting in the various portions of the district of any variety. Another committee, consisting of a representative from each of the large co-operative associations and the large dealers and leading growers, are to meet, to see if they can devise any way to more effectually distribute the large fruit crops of the future, to insure a steady commitment to the leading centers and distributing points, so as to enable the retailer to always have fruit in his store at reason-

able prices, and to prevent, if possible, disastrous gluts, when fruit has to be sold for less than cost. These committees are to meet at once, and this subject will be discussed at the winter meetings held at different points in the district.

ROBT. THOMPSON.



James Bryson.

President Canadian Ayrshire Breeders' Association.

Hotbed Sashes.

Having tried different ways of making sashes for hotbeds or greenhouses, I have found the following plan inexpensive, simple and good.

Get at the planing-factory or sawmill pieces of pine cut out 2 in. x 1 1/4 in., the length you want to make your sash. I have these pieces dressed on all four sides; it will require four pieces the length of your sash to hold three rows of glass on each of these pieces. I get a groove cut with a

make a sash, I use 3/4-inch finishing nails, and they seem to stand just as well as mortising, and much easier and cheaper made.

In commencing to nail your pieces together to make your sash, be sure and keep it square and true. I use a measure the exact width of the glass that I intend using, and fit this stick in the groove at each end, and also make the stick fit in the groove at the top end while you are nailing, and after you get the top end nailed move your measure to the bottom end of your sash, and place it in the groove at both ends of your measure, and then nail your cross-piece on. Be sure and have the top edge a little lower than the groove, so the glass will fit in the grooves from bottom to top without any trouble. One pane butts up against the other, but does not lap, and when filling the sash up with glass, I use steep carpet tacks, and just fasten the bottom pane in, and the rest cannot get out, as one pushes against the other; and if at any time a pane gets broken, it is an easy matter to pull out these small tacks and put in another pane, as I never use any putty for these sash, and find they work quite satisfactorily.

In making your hotbed, be sure and do not put it closer than eight feet from the fence, as, when you want to water or ventilate it, you can slide the glass either way you desire.

A person should paint the sash before putting the glass in; if so, they will last for many years.

A handy size to make the sash is made with three rows of glass, 12 x 12 in., or 10 x 12 in., whichever a person chooses. Every farmer should have two or three hotbed sash to start early plants or vegetables. "PETER PLANTER."

\$2,500 from 10 Acres of Apples.

Editor "The Farmer's Advocate":

In compliance with your request, "What was the culture, etc., which enabled me to sell for \$2,500 cash the crop of apples on ten acres of land?" I shall with pleasure describe the practice I carried out.

On the 16th of August, last, M. C. Smith, of the firm of J. C. & M. C. Smith, Burlington, extensive exporters of apples, called at my place, Halton Co., and said he desired to buy the Spy apple crop on my orchard of ten acres. I told him it could not be bought, unless I got my price, as I was independent of buyers, having turned one of my buildings into a winter storage for apples. He replied he knew that, but he wanted the apples. I asked \$2,500 cash, and he gave it, taking all the risk and expense from that date.

Regarding the culture, etc., on the large farm I bought some ten years ago here, there are two apple orchards, one of Spies (10 acres), and one of mixed apples (15 acres). The year I bought, the tenant had about five barrels of apples from both orchards. The larger orchard had been in sod for many years. As I had lived all my life in Toronto, I had no prejudices, and inherited no customs or habits of orcharding or farming, hence I read farming pamphlets and "The Farmer's Advocate," and applied the knowledge gained.

I plowed the orchards the following spring after purchase, and about the end of July seeded down with common red clover for humus and nitrogen, and turned it all under in the end of May following, and have followed that practice ever since. Result: the ground is so full of humus that it is spongy in feeling, and moist in the driest time of any season. The apples are never small, no matter how severe the drouth.

We bandage the trees for codling moth, getting for that purpose cheap bags from a tannery, besides spraying three times during the season. I do not prune trees very much, preferring quantity to exclusive quality. I prefer feeding the land with clover and potash, and obtaining large crops.

Before last year, notwithstanding all efforts, we never obtained a crop in the center half of the said Spy orchard. Some said the trees were too close; others that Spies were poor self-fertilizers,



Tidy Abbekerk Mercena Posch 4391.

Holstein bull. Bred by H. Bollert, Cassel, Ont. Owned by W. H. Simmons, New Durham, Ont.

circular saw a quarter of an inch from the top edge of the stick, about quarter of an inch deep, and one-eighth of an inch wide, and each of the center pieces have two grooves to support the glass, and the top cross-piece is made the same as the side, excepting in length, with one groove in it, and the glass will fit in the top cross-piece; and at the bottom end of your sash get some pieces cut out 1 1/4 in. x 1 1/4 in.

Instead of mortising these pieces together to

etc. The advice was to cut out half the trees and top-graft. The year before last I drained the center thoroughly with lateral drains running up each side. Last year the center bore, as well as the outside, hence a large crop—eighteen hundred barrels.

From the basket factory, Bronte, I buy all the apples they have, and apply them to the orchards. What success I have in tree fruit I attribute principally to the humus in the ground, and to draining.

In regard to the 15-acre orchard, the treatment, as stated, has revived it, the crop improving every year, notwithstanding the age of many of the trees. There was shipped from the old orchard last fall over 1,700 boxes to Britain, and we have considerable stored for spring sale. Have had returns for 1,200 boxes to date. Counting three boxes and a half to the barrel, they are returning from \$4.50 to \$7.00 per barrel, gross.

As a further proof of the advantage of draining, six years ago I planted seven acres of cherries—half of them in low ground. Those in low ground did not thrive. Three years after planting they commenced to die, and I had the ground drained. Now they are nearly as large as those on the high ground, and bore finely last year. Crop of 1908, 400 baskets; crop of 1909, over 2,000 baskets.

I asked a gardener once, who had a beautiful place, what was the secret of his success. He answered in one word, "Work." Now, you cannot have a large crop of good apples unless you feed them, and do some honest work. But the work is not as strenuous as would appear, for the old saying is very true, "A job once begun is half done." PAUL CAMPBELL.

Halton Co., Ont.

THE FARM BULLETIN.

Clydesdale Annual Meeting.

The twenty-third annual meeting of the Canadian Clydesdale Horse Association was held at the King Edward Hotel, Toronto, on Monday, January 31st, 1910, with a very large number of members present. President John Bright called the meeting to order, when the minutes of the last annual meeting were read by Secretary J. W. Sangster, which, on motion, were adopted. The Secretary then read the financial report of the year, which was found most satisfactory; in fact, the best in the history of the Association, the total of assets over liabilities being \$9,312.23, and cash on hand of \$6,716.20. On motion, the report was adopted. The Secretary then read several communications tendering congratulations on the size and excellence of the 1908 volume of the Studbook; also expressive of satisfaction re the annual grants to the several exhibitions.

Pres. Bright, in his opening address, spoke in eulogistic terms of the very healthy condition of the Society, referring to the large increase in membership and the record number of registrations for 1909, touching briefly on the high prices of draft horses, and the increasing popularity of the Clydesdale as the ideal draft horse, and asking the incoming directors to use their best efforts to make their showing at the next annual meeting even better than the present one, and, whenever possible, to give larger grants to the leading shows, particularly those held in Western Canada. The election of officers for the current year resulted in the old directorate being reappointed, as follows:

President, John Bright, Myrtle; Vice-President, Robert Graham, Bedford Park; Vice-President for Ontario, Peter Christie, Manchester; for Quebec, R. Ness, Howick. Directors—Wm. Smith, Columbus; John A. Boag, Queensville; James Henderson, Belton; T. A. Graham, Claremont; James Torrance, Markham; Geo. Gormley, Unionville, and A. E. Major, Whitevale. Delegates to the several exhibitions appointed were: Canadian National, John Bright; Ottawa, Peter Christie and Robert Ness; London, James Henderson and W. Mossip; Winnipeg, John Graham, Carberry, and John Wishart, Portage la Prairie; Regina, Alexander Mutch, Lumsden, and Robert Sinton, Regina; Brandon, W. J. Elder and B. Trotter, Brandon; Calgary, D. C. Hallman, Victoria, and E. B. Pemberton; Sherbrooke, Robt. Ness; Amherst, W. W. Black.

Wm. Smith then read rule of constitution relative to appointing of Registrar at Ottawa and asked that said rule be changed, putting the power of appointing or dismissing registrar in the hands of the Record Committee, which, on motion, was carried. The meeting then adjourned.

At a later meeting of the Executive of the Canadian Clydesdale Association, the following grants, we are informed by the Secretary, were made to the several exhibition associations named, those for Ontario not yet being decided on: For Winnipeg, Brandon, Regina, Calgary and Edmonton, \$225 each; for the leading exhibitions in British Columbia, \$100. It was also decided to make a liberal grant to the Dominion Exhibition at St. John, N. B., the exact amount not being determined as yet.

Shire Men Meet.

The Canadian Shire Horse Association held their annual meeting at the King Edward Hotel, Toronto, on Tuesday, February 1st. The meeting was well attended, and considerable business transacted. President Wm. Laking called on the Secretary, G. de W. Green, to read the minutes of the last annual meeting, which, on motion, were adopted. The Secretary, in his preliminary remarks, spoke at some length on the continued popularity of the Shire horse in Great Britain, and the very high prices being paid for Shires in that country. He also congratulated the Society on the most prosperous and successful year of their history, registrations having increased over 300 per cent. during the last year, and membership 100 per cent. He also spoke of the several importations of Shires made during the past year, and laid particular stress on the high-class quality of the Shire exhibit at the late International Show at Chicago. The financial report, read by the Secretary, for the past year was a most satisfactory one, and showed a total of receipts of \$953,225, and a balance on hand, after meeting all expenditures, of \$724,89, and an excess of assets over all liabilities of \$356,61. On motion, the financial report was adopted. The President, in his address, spoke of the many good qualities of the Shire as a draft horse, strongly urged the members to ever be on the alert to forward the interests of the Shires, and advised that a stronger and more representative exhibit of the breed be made at the leading shows. D. H. Messenger, of Guelph, one of the veteran Shire breeders of Canada, spoke at considerable length, and with marked ability along similar lines, and as an inducement to a better showing being made at the Canada National Exhibition, offered a donation of \$25, with the proviso that the society duplicate the amount, to be used, in the discretion of the directorate, as a special for some particular class, which offer, on motion, was accepted. The time occupied in counting the ballots re the election of officers, was occupied by Dr. Rutherford, Dominion Live-stock Commissioner, who spoke in his usual happy strain, touching many points of interest to breeders of draft horses in Canada. The election of officers for the ensuing year resulted as follows:

President, Wm. Laking, Haliburton; Vice-President, John Breckon, Appleby. Directors—John Gardhouse, Highfield; D. H. Messenger, Guelph; W. E. Wellington, Toronto; J. M. Gardhouse, Weston; James Henderson, Belton; A. A. Miller, Middlemarch; C. E. Porter, Appleby. Vice-Presidents for the Provinces: Ontario—F. W. Ramsey, Dunville; Quebec—Wm. Hodgins, Portage du Fort; Maritime Provinces—Hon. F. W. Hasard; Manitoba—F. J. Stott, Bagot; Saskatchewan—P. B. Ross, Grenfell; British Columbia—A. Davie, Ladner. Delegates to Exhibitions: Canadian National—J. M. Gardhouse; London—A. A. Miller; Ottawa—Wm. Hodgins and W. Laking. Representatives to the Horse-breeders' Association, John and J. M. Gardhouse. Executive and Pedigree Committee, W. E. Wellington, John and J. M. Gardhouse. Before adjournment, Dr. Rutherford was unanimously elected as Honorary Life President of the Society.

Hackney Breeders Meet.

The Canadian Hackney Horse Society held its annual meeting at the Prince George Hotel, in Toronto, on Monday, Jan. 31st, 1910. President Walter Renfrew in the chair. Secretary H. M. Robinson read the minutes of the previous annual meeting, which, on motion, were approved. The President, in his opening address, said he was pleased to see so many members present, evidencing a growing interest in the welfare of the Society and an increase in the popularity of the breed. He also spoke of an effort now being made to fix a standard of registration, to include Canada, United States, and Great Britain, which would make the qualifications for registration the same in the records of all three countries. He also congratulated the Society on its healthy condition, the past year being the best in its 18 years' existence. The Secretary's report and the financial report for the year, showed a balance on hand of \$677,88, an increase of more than 100 per cent. over last year's report. During the year there were 182 registrations and 71 transfers recorded. On motion, the report was adopted. New rules were adopted fixing and simplifying the standard of registration, at the same time raising the standard slightly higher than before. On motion, a resolution was passed memorializing the committee appointed by Parliament to report on the Miller Bill, re betting on horse-races, requesting said committee to hesitate before recommending Parliament to adopt said bill, which they feel would seriously injure certain branches of light-horse breeding in Canada. The election of officers for the ensuing year resulted as follows:

President, Walter Renfrew, Bedford Park; Vice-President, Wm. H. Gibson, Beaconsfield, Quebec. Directors—T. A. Graham, Claremont; John A. Boag, Queensville; A. Yeager, Simcoe; F. C. H. Tisdale, Beaverton; J. W. Allison, Morrisburg; Hon. Robert Both, Beaconsfield; T. A. Cox,

Brantford. Vice-Presidents for the Provinces: Quebec—T. B. McCaulay, Hudson's Heights; Maritime Provinces—W. W. Black, Amherst; Manitoba—John Graham, Carberry; Alberta—J. P. Thompson, Calgary; Saskatchewan—R. A. Taber, Condie; British Columbia—W. Mitchell, Victoria.

Following is a copy of the proposed new rules of entry in the Studbook of the Canadian Hackney Horse Society:

CANADIAN HACKNEY HORSE SOCIETY—RULES OF ENTRY.

The pedigrees of the following animals may be admitted to registry:

1. Bred in Canada.
 - (a) Stallions with three top crosses of Hackney sires recorded in the Canadian Hackney Studbook.
 - (b) Mares with two top crosses of Hackney sires recorded in the Canadian Hackney Studbook.

Note—All eligible mares must be recorded and numbered before their progeny can be recorded.
 2. Bred in Great Britain or Ireland, and recorded in the English Hackney Studbook.
 - (a) Stallions with three top crosses of *full-registered sires, and with two registered dams.
 - (b) Mares with two top crosses of *full-registered sires, and with one registered dam.
 - (c) Mares with one top cross of *full-registered sires, with a registered, inspected dam.

*Full-registered sires are those (a) that are recorded as such in any of the first 16 volumes of the English Hackney Studbook, or (b) those recorded since Vol. XVI., providing they were eligible to full registry under the rules in force for entries in Vol. XVI. of the English Hackney Studbook.
- Note—Stallions or mares imported prior to the date of the incorporation of these rules will be admitted to registry.

Standard-bred Horse Association.

The recently-formed Standard-bred Horse Association of Canada held a meeting at the Prince George Hotel, Toronto, on Tuesday, February 1st, for the purpose of perfecting their organization, in preparation for incorporation, President Robert Miller, of Sturville, in the chair. The only business transacted was the election of a Vice-President, A. Allison, of Morrisburg, Ont., being elected to the position. A resolution, read by Dr. Bell, of Winnipeg, was adopted, requesting the committee appointed by Parliament to hesitate before recommending the adoption of the Miller Bill, re betting on horse-races, believing it would seriously affect the light-horse-breeding industry of Canada. The resolution was spoken to by O. B. Shepherd, Ald. S. McBride, Dr. Rutherford, and others, the consensus of opinion being that the Bill, if passed, would work incalculable harm to the breeders of this class in the country. O. B. Shepherd was delegated to appear before the Commission at Ottawa to give evidence against the Bill.

Ontario Horse-breeders' Association.

The annual meeting of the Ontario Horse-breeders' Association was held at the Walker House, Toronto, on Feb. 1st, 1910, a good representation of breeders of the various classes of horses being present. President Wm. Smith, of Columbus, Ont., occupied the chair.

Secretary A. P. Westervelt read the minutes of the last annual meeting, which, on motion, were confirmed. The report of the Secretary and the financial statement were, on motion, adopted. The report of the Executive, which was adopted, showed that, owing to the change made in the constitution at the last annual meeting, the membership for 1909 was increased from 379 to 544. This year the membership is 594, made up as follows:

Canadian Clydesdale Association	516
Canadian Shire Association	28
Canadian Hackney Society	21
Canadian Thoroughbred Society	18
Canadian Pony Society	11
	594

The number of directors to be appointed from among the members of each of these Associations is as follows: Clydesdale, 12; Shire, 2; Hackney, 2; Thoroughbred, 2; Pony, 2.

That the affiliation of the Horse-breeders' Show with the Ontario Winter Fair, at Guelph, has proved a distinct success, is generally recognized, the gate receipts having been greater than the combined receipts at the previous Horse Show at Toronto Junction and the Winter Fair at Guelph. The number of entries in horses were about 25 per cent. in excess of the Show in 1908.

At the Eastern Ontario Live-stock Show, at Ottawa, in January of this year, the number of entries of horses was 115, as compared with 75 in 1909, and the amount of prize-money paid for horses was this year \$1,300, as compared with \$1,000 last year.

The financial statement for the year ending December 31st, 1909, showed receipts for the year

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at \$5,023.05, and expenditures \$4,897.30, leaving a balance on hand of \$135.75.

The president, in his address, said he considered the report and statement eminently satisfactory, which indeed it would have been had the balance been on the other side of the account, considering the enthusiasm engendered by holding the Horse Shows in connection with the Winter Fairs, and the very much larger attendance attracted, and the increase of business transacted.

The following resolutions were adopted by the meeting: (1) That we, members of the Ontario Horse-breeders' Association, do hereby request that the Committee appointed by Parliament to report on Bill No. 6, introduced by H. H. Miller, of South Grey, seriously hesitate before recommending Parliament to adopt the Bill, which, should it become law, they feel will greatly injure certain branches of the rapidly-increasing horse industry, which is annually becoming of greater importance to Canada.

(2) That we desire to express our hearty appreciation of the action of the Government of the Province in assuming control of the Ontario Veterinary College, and of the efforts they are making to elevate the standard of veterinary education, a matter of vital importance to the live-stock industry. As a further step in the same direction, we would respectfully urge upon the Government the advisability of furthering the passage of such legislation as will secure the proper recognition of the veterinary profession, and the consequent protection of owners of live stock from persons practicing as veterinary surgeons, without proper professional qualifications.

(3) That we respectfully urge upon the management of the Canadian National Exhibition Association the great importance of hurrying to completion the proposed live-stock judging arena on the Exhibition grounds. It is absolutely necessary, in order that we may improve on the exhibits of horses made by the breeders and exhibitors in past years, and that a copy of this resolution be sent to Manager Orr.

Following are the officers elected for the current year:

President, Wm. Smith, Columbus; Vice-President, John A. Boag, Queensville. Directors—For Clydesdales, Wm. Smith, John A. Boag, T. A. Graham, W. Renfrew, Peter Christie, Robt. Miller, John Bright, Geo. Gormley, Walter Milne, James Henderson, James Torrance. Shires—John Gardhouse, J. M. Gardhouse. Thoroughbreds—Wm. Hendrie, Dr. Webster. Hackneys—E. C. H. Tisdale, Geo. Pepper. Ponies—H. M. Robinson, W. R. Meade. Executive Committee—The President, Vice-President, J. M. Gardhouse, James Henderson, John Bright, and Geo. Pepper.

Canadian Jersey Breeders Well Satisfied.

With its Secretary and some of the delegates delayed by a storm, reaching the place of meeting just as the gathering was on the point of adjournment, the Canadian Jersey Cattle Club held a quiet but well-satisfied annual meeting in the Board Room of the Street Railway Company, Toronto, on Thursday, February 3rd. President R. J. Fleming called the meeting to order, but later vacated the chair in favor of his successor, the well-known and successful Jersey breeder, David Duncan, of Don, to whom, by the way, a gracefully worded letter of condolence expressed the Club's sympathy with him over the bereavement recently sustained in the loss of his estimable wife. Other officers elected are: Vice-Presidents—D. O. Bull and Thompson Porter, representing Ontario; H. W. Edwards, for Quebec; H. S. Pipes, Amherst, for Nova Scotia; and D. Smith, Gladstone, for Manitoba. R. Reid, Berlin, was re-elected Secretary-Treasurer. H. B. Cowan acted as secretary of the meeting. No change was made in the directorate, except to drop the name of Mr. Porter, who had been made Vice-President, and to put in his place Mr. Fleming, who was made President of the Board.

Judges recommended were: For the Canadian National, Prof. Scovill, of Kentucky; alternative, Geo. W. Sisson, Jr., Potsdam, N.Y.; Western Fair, W. J. Humpidge, London, Ont.; Central Canada, S. J. Lyons, Norval; Winnipeg, Calgary and Edmonton, H. G. Clark, Georgetown, Ont.; Sherbrooke, Que., Jos. Dolson, Alloa; Dominion Exhibition at St. John, F. S. Peer, Ithaca, N. Y.; Halifax, N.S., J. L. Clark, Norval. Grants were voted to exhibitions as follows: Calgary, Edmonton, Winnipeg, London, Ottawa and Halifax, \$25 each. Subscriptions by wealthy members of the Club were depended on to support Jersey interests at the Canadian National.

D. O. Bull invited the Club to hold its summer meeting at Brampton, as the guests of B. H. Bull & Son. A suggestion that the official organ be sent to all members was voted down, as being in the nature of an invidious discrimination against other papers.

Addresses were called for from new members and others present. Arising out of the statement of one new member, who stated that he had been frozen out of his chose factory by the annual meeting voting to throw out the test and pay for

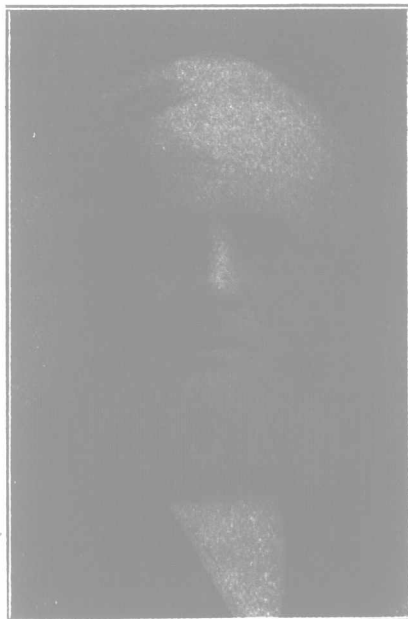
milk on the pooling system, a discussion developed which led to this resolution:

"That we, the members of the Canadian Jersey Cattle Club, feel that a great injustice is being inflicted on those farmers who keep cattle giving milk rich in fat by the system of pooling milk at cheese factories, and we would request the directors to draw this matter to the attention of the Dominion and Provincial Departments of Agriculture, with the object of having experiments conducted that will show to the patrons of cheese factories the injustice done and the loss thus sustained." It was also urged in discussion that ice cream should be standardized by law.

Another resolution regretted that while Jerseys are one of the greatest breeds of dairy cattle in the world, none are kept at the Central Experimental Farm, where farmers expect to see representative cattle of the leading breeds, and urged the directors to lay their views before the Dominion Minister of Agriculture, with a view to having a representative herd of Jerseys kept there.

Three hundred and forty registrations were recorded in 1909, divided among Provinces as follows: Ontario, 239; Manitoba, 10; Saskatchewan, 4; Alberta, 5; British Columbia, 19; Quebec, 7; New Brunswick, 12; Nova Scotia, 21; Prince Edward Island, 11. There were in all 107 transfers, and the membership reported was 79.

Twelve Jerseys have been entered in the Record of Performance test. The following had qualified as to production, but had not as yet fulfilled the necessary condition of calving within 15 months from commencement of the test: Lady Buttercup of Pender, a two-year-old, gave 8,016 pounds milk and 499.7 pounds of butter-fat within the year.



David Duncan,
President Canadian Jersey Cattle Club.

The Secretary read a letter from Dr. Rutherford, saying that in future a cow will not be accepted for Record of Performance test unless she has freshened within 30 days prior to date of application. The financial statement showed a balance on hand of \$787.44. The Secretary and the President were appointed a committee to deal with the matter of having feed taken into account in the dairy tests at the Winter Fairs. Upon the conclusion of the business the meeting adjourned to luncheon, as the guests of the Club.

Praise from Across the Ocean.

Our esteemed contemporary, "The Farmer's Advocate," which justly claims pre-eminence among agricultural papers in Canada, recently issued as its Christmas Number a wonderfully fine publication, which, from the pictorial and letterpress points of view, constituted one of the best special numbers that have come to us from across the Atlantic for a long time. A very striking article on "Education for the Farm," by John Dearness, is given the place of honor. . . . The illustrations are of unqualified merit, being intensely interesting and instructive.—[The Farmer's Gazette (Dublin).

A valedictory announcement in the January number of the Canadian Entomologist announces the resignation of its editor, Rev. Dr. C. J. S. Bethune, now Professor of Entomology at the Ontario Agricultural College, who put forth the first number of the publication in August, 1868, over 40 years ago, and, with the exception of a period of thirteen years, has edited it ever since. The weight of advancing years and the disability occasioned by impaired eyesight have led Dr. Bethune to relinquish the editorship of the magazine, which is taken up by Dr. E. M. Walker, Lecturer in Biology at the University of Toronto, whose name is widely known in scientific circles.

Shorthorn Breeders' Annual Meeting.

The 24th annual meeting of the Dominion Shorthorn Breeders' Association, held in Toronto on February 1st, was very largely attended by breeders from the various Provinces, representatives being present from at least Ontario, Quebec, Nova Scotia, Manitoba, Saskatchewan and Alberta. Captain T. E. Robson, president, in an able opening address, referred to the growing popularity and importance of the breed in supplying the ever-increasing demand for first-class beef. He spoke in optimistic terms of the prospect of a prosperous future for Shorthorn breeders, referring to the championship winnings of this breed in the carload competition at the late International Show at Chicago, and of export steers at the Ontario Winter Fairs; also to the increasing demand from the United States for first-class cattle from Canada to strengthen show herds, in which they have made such splendid records there in the last few years. The marked shortage of good feeding cattle in the country called for a more general use of Shorthorn bulls to grade up the common stock of the country, and breeders were counselled to use the knife more freely on inferior young bulls, in order to increase the number of good steers, and at the same time raise the standard of quality of breeding herds. Canada is, and is evidently destined to be, the favored breeding-ground for the supply of virile blood for the improvement and maintenance of high-class Shorthorns on the American continent, and breeders should vie with each other in keeping up our reputation in this regard.

The report of the Secretary, Registrar and Executive Committee, which was adopted, showed a very prosperous condition of the affairs of the Association. Vol. XXVI. of the Herdbook, closed December 31st, contains the pedigrees of 3,459 bulls and 3,763 cows, a total of 7,222. Registrations for 1909 numbered 7,487, Ontario leading, with 4,634; Manitoba second, with 1,529; Alberta third, with 544; and Saskatchewan fourth, with 416. The number of transfers recorded was 2,827, and the membership recorded was 3,576.

The cash received at the National Records Office, and deposited to the credit of the Dominion Shorthorn Association, was \$12,214.42. The receipts for conducting the Shorthorn Record were \$4,109.39, and the expenditures in that work, \$3,497.18, leaving a balance due the Shorthorn Association of \$612.21.

The financial statement of the Association, Jan. 1st to Dec. 31st, 1909, shows receipts of \$15,384, and expenditures of \$12,596.52, leaving a balance on hand of \$2,837.50.

GRANTS TO EXHIBITIONS.

The following is a list of the appropriation of prize-money to exhibitions for 1910: Ontario—Toronto, \$1,000; London, \$250; Winter Fair, Guelph, \$225; Winter Fair, Ottawa, \$125. Manitoba—Winnipeg, \$300; Brandon, \$300. Alberta—Calgary, \$300. Saskatchewan—Regina, \$300. British Columbia—Victoria, \$50. Quebec—Sherbrooke, \$100. Maritime Provinces—Halifax, \$50. The amount of special grant to the Dominion Exhibition, to be held this year at St. John, N. B., was left to the discretion of the Executive.

ELECTION OF OFFICERS.

The election of officers for 1910 resulted as follows: Pres., Capt. T. E. Robson, London; Vice-President, Peter White, Pembroke; Second Vice-President, Harry Smith, Exeter; Secretary-Treasurer, W. G. Pettit, Freeman.

Board of Directors—W. D. Cargill, Cargill; W. A. Dryden, Brooklin; S. Dymont, Barrie; P. M. Brett, Regina; J. M. Gardhouse, Weston; Hon. P. Talbot, Lacombe; J. T. Gibson, Denfield; Jas. Leask, Greenbank; John Davidson, Ashburn; John Gardhouse, Highfield; Wm. Smith, Columbus; J. G. Barron, Carberry; J. F. Mitchell, Burlington; J. W. Washington, Ninga; John Isaac, Markham.

Executive and Finance Committee—Capt. T. E. Robson, London; Peter White, Pembroke; Harry Smith, Exeter; Robert Miller, Stouffville; J. M. Gardhouse, Weston.

A resolution expressing appreciation of the interest in and the work done by the late Hon. John Dryden for this Association and for the cause of agriculture and stock-breeding generally in Canada, also expressing sympathy and condolence with the bereaved family, was, on motion of A. W. Smith, M. P., seconded by Peter White, K. C., unanimously adopted, ordered to be engrossed, and presented to Mrs. Dryden.

A resolution was also adopted urging the management of the Canadian National Exhibition, Toronto, to hurry to completion the live-stock judging arena, repeatedly asked for by the Stock-breeders' Associations, as an absolute necessity for showing and seeing to advantage the horses and cattle which constitute such a great attraction to Fair visitors.

Ontario Corn-growers Enthusiastic.

SECOND ANNUAL CONVENTION AND EXHIBITION.

The Town of Essex, in the extreme south-western part of Ontario, showed its appreciation of the gathering of the corn-growers there in an unmistakable way. The motto in big letters, "Welcome to Essex," executed in corn ears, or cross sections of ears, displayed both inside and outside of the hall where the meetings of the convention were held, was but one of the many signs showing that Essex was glad to see the corn men.

Almost every store-window in town was decorated with corn in one or many forms. Corn as it grew, corn in the ear, shelled, ground, popcorn whole and popped, were to be seen as decorations everywhere. By the way, it may be noted that corn ears lend themselves very readily to decorative effect, whether for large letter signs, or to be hung in strings, stacked in piles, arranged in patterns, or stuck into shoe tops. One window had a raccoon on a limb with an ear of corn in its mouth; another, over a spread of popped corn, had the invitation in popcorn letters, "Pop In." At the hotel headquarters, also profusely decorated, the guests were served, among other things, with canned corn, johnnycake, corn soup; and, in some cases, corn juice as well. Citizens opened their doors to accommodate those who could not find room elsewhere; business men attended the show and the meetings, and all strove in many ways to make the visitors feel at home.

Looking at the splendid display of corn in the exhibition, of which there were over 800 entries; noting the specially pleasing and significant feature of such a large number of exhibitors, over 300 competing for prizes, and observing the close attention and live interest of the crowded audiences as the fine points in corn selection or the advantages of draining were being discussed by the speakers, one was led to think that the winter shows were now doing the educative work that the great fall shows started out to do, but have so largely eclipsed with amusement and other features.

To A. McKenney, Government representative at Essex, a great deal of the success of the corn show and convention is due, and the Essex County people are proud of him, and of the fact that together they have started the first corn show in the Dominion. But Mr. McKenney has been loyally supported by a strong board of directors, well distributed over the whole district. These have been influential in interesting township and county councils, so that the prize money offered has been largely increased since last year. The county councils of Essex and Kent donated \$200 each towards this, and, in addition, at least eight townships have made grants of \$25 each to help things along. The Farmers' Club, of Tilbury East, offered a silver cup, valued at \$25, and various banks, business firms and prominent men have also freely assisted.

In opening the show and convention on Tuesday afternoon, February 1st, President J. O. Duke referred briefly to the fact that last year everyone who attended the corn show went home delighted, and that there was a promise of much larger attendance this year. He emphasized as first in importance the development of the Canadian people. Local conditions must be studied. In Essex special attention to underdraining was required, and the subject, therefore, had a place on the programme before the convention. A study of the corn plant was of great value, "and," said he, "we want men like Professor Klinck more than we want men of war."

The proceedings, which lasted without interruption for four days, usually began in the forenoon, with practical demonstrations in corn selection and judging by Professor Klinck, of Macdonald College, Que., at the rink, where the show was held, and in the afternoon lectures were given in the town hall by Prof. Klinck, Prof. W. H. Day, Prof. Zavitz; L. H. Newman, Secretary Canadian Seed-growers' Association; Prof. C. G. Williams, of Agricultural Experiment Station, Worcester, Ohio, and others, on such subjects as "Tile drainage as a factor in corn-growing," "Crop rotations for corn," "Corn breeding," "Principles of tillage," and "Corn improvement."

On Wednesday, Thursday and Friday afternoons the Town Hall, which seats 400 comfortably, was not nearly large enough to accommodate those who wished to hear the addresses, about 60 or 70 having to stand throughout the sessions, and one to two hundred more being unable to get in. The morning sessions were unique and intensely interesting. Fancy three improvised plank tables, each 100 feet in length. At these tables corn-growers, young and old, were seated, each with a score sheet and several ears of corn before him. As Prof. Klinck proceeded, describing desirable types of ears, proper shape of kernels, composition of the grain showing where the oily, starchy and nitrogenous constituents were deposited; how to distinguish between dead or weak germs and those of strong vitality, etc., each man at the tables would by turns be marking on the score sheet the number of points the different ears in front of him

merited, cutting open and examining the kernels of corn as directed, or following the Professor as he referred to his charts. Thus employed, two hours passed very quickly. Enthusiasm increased day by day. No one becomes so absorbed in analyzing the fine points in corn as the old corn-grower.

The corn exhibition itself was a great success. It has increased since last year more than three-fold, both as to entries and number of those exhibiting. Prof. Klinck, who acted as judge, also made special mention of the fact that though 1909 was a much less favorable season for corn than 1908, yet the quality of the exhibits, particularly as to desirable types, was much superior.

Though the prize-list included flint as well as dent corn, comparatively little flint corn was on exhibition, the dent varieties greatly predominating. White Cap Yellow Dent, large and small varieties, and Bailey Dent, seemed to be special favorites.

Our own Professors, Klinck, Zavitz and Day, and Mr. Newman, got a very fine hearing, as did also Prof. Williams, of Ohio, who spoke on "Corn Improvement," and a synopsis of whose address we hope shortly to publish.

The evening meeting on Thursday, Mayor Doyle presiding, was addressed by Hon. J. S. Duff, Minister of Agriculture; George Clark, Seed Commissioner, Ottawa; Dr. Anderson, Member of Legislature for South Essex; P. H. Bowyer, Member for East Kent, and others. Music was provided by the male quartette of Essex, and other local musicians.

At the annual meeting of the Ontario Corn-growers' Association, held on Friday, February 4th, the reports of the Secretary and Treasurer



J. O. Duke, Ruthven, Ont.

Re-elected President of the Ontario Corn-growers' Association.

showed not only a prosperous but a booming state of affairs. The question of receiving the bean-growers of Kent and adjoining counties into the association was earnestly discussed, but no action was taken.

Officers for ensuing year: Honorary President, Hon. T. S. Biggar; President, J. O. Duke; 1st Vice-President, J. H. Williams; 2nd Vice-President, Ed. Smith; Secretary, A. McKenney; Superintendent of Show, H. Smith; Directors, one from each township in Essex and Kent, and three from Elgin and one from Lambton Counties: Essex—Aug. St. Louis, John B. Couseneau, Jas. McAuliffe, K. J. Wilson, R. W. Knister, Eli Quisenberry, Herman Pettit, Pat Coyle, T. H. Adams, Jos. Whitney, H. P. Jeffrey, John Arner, Jas. Martin; Kent—W. H. Winter, R. Abraham, Byron Robinson, A. R. Everett, J. B. Rhodes, Geo. Langford, Dan Buchanan, Wm. Blue; Elgin—D. Carnochan, J. B. Hankinson, Wm. N. Ford; Lambton—E. Wark.

The hope of the corn-growers of these south-western Ontario counties is that they may yet supply the growers of silage corn in Canada with all the seed corn they require. Their motto is, "Better corn, and more of it."

At a meeting of the Ontario Large Yorkshire Swine-breeders' Association, in Toronto last week, officers were elected as follows: President, J. E. Brethour; Vice-President, Jos. Featherston; Secretary, A. P. Westervelt. Directors—Wm. Jones, Major G. B. Hood, D. C. Flatt, H. J. Davis and L. A. Snider. The association has a surplus of \$401, of which provision was made to use \$350 for prizes at the fairs. It was decided to cut off the vote for Yorkshires to the Western Fair, London, on the ground, we understand, that the prizes were inadequate.

Racing and the Control of Race Meets.

We trust the Canadian press may never become too narrow to open its columns to any man's honest opinions. The agricultural press of Canada has, so far as our observation goes, been unanimous in sympathy with the supporters of Mr. Miller's anti-race-track gambling bill. That position "The Farmer's Advocate" frankly maintains for reasons hitherto set forth. There are, however, some horsemen, particularly devotees of the Thoroughbred, who believe that racing is necessary in the best interests of horse-breeding, and that permission to wager is necessary to encourage racing. The views of this class were admirably represented by Dr. J. G. Rutherford before the Parliamentary Committee in Ottawa a fortnight or so since. As his remarks were somewhat briefly and unfairly reported in the daily press, "The Farmer's Advocate" took the trouble to obtain from him while in Toronto last week an interview, setting forth briefly the representations he made before the Committee in Parliament:

I believe the Thoroughbred to be the foundation of practically all that is best in light-horse breeding. He has been carefully developed by the best horsemen in the world from the best foundation stock procurable. The contests for which he has for hundreds of years been bred have given him a concentrated strength, a courage, an endurance, a quality, possessed by no other of our equine species. Add to these attributes the fact that for upwards of a century there has been absolutely no admission of foreign blood in the English Thoroughbred, the result being a prepotency unknown in any of our other domesticated animals. All our best breeds of light horses are descended from the Thoroughbred. The American trotter owes his origin to the imported Thoroughbred horse, Messenger. The Hackney owes all that is best in him to the Thoroughbred horse, Blaze. Our various breeds of carriage horses, the French and German Coach, and even the Cleveland Bay and Yorkshire Coach, have had liberal infusion of Thoroughbred blood. As regards Canada, it will be remembered that prior to the importation of the American Standard-bred horse, which began some twenty-five years ago, we had a magnificent class of roadsters of our own—big, strong, powerful horses, with conformation and quality. Clear Grit, one of our most famous sires of this class of horses, was by an imported Thoroughbred horse, Lapidist; and another of the most famous progenitors of these roadsters, Royal George, was bred along similar lines. At the present time our roadster horses, both trotters and Hackneys, are valued and priced in accordance with their possession of qualities, which, in every case, is due to the presence of Thoroughbred blood close up in the pedigree. We are breeding in Canada, annually, hundreds of thousands of useless, light-legged horses; mongrels, without quality, without type, without special character of any kind.

If we breed to carefully-selected Thoroughbred sires having quality, substance and size, we gain two things. First, we produce horses of good type and quality, that would be ready sellers in the light-horse markets of the world; secondly, and most important, we would infuse into the light-legged mares of the country that quality, endurance and courage necessary to produce a good horse when mares of this class are crossed with the carriage and other cold-blooded, light-legged stock. Count Lehndorf, Master of Horse of the German Empire, says it pays Germany to expend \$100,000 for the best Thoroughbred horses they can get in England to cross on the common mares of their country. As a proof that they believe what they say, Germany paid \$100,000 for Galtee More, winner of the Derby, and \$80,000 for Ard Patrick, which had previously been bought by Russia for \$110,000, and was obtained by Germany at the time of the Japanese war. The French Government paid \$187,500 for Flying Fox, another Derby winner. The Argentine paid \$150,000 for Ormonde, another Derby winner. There has been a constant procession of Thoroughbred horses going across the Channel for use on the Continental mares of Europe. The British Government has never needed to spend money on horses in that way, because the breed has been kept up by the people of that country, from the King down.

Now, unless raced, the Thoroughbred horse would lose the courage, endurance and quality which have made him so valuable. I advocated before the Parliamentary Committee a return to the conditions that prevailed twenty to thirty years ago, and previously, when races were fewer in number and of much greater average distance; while the weights carried were much higher than at present. It is necessary to allow betting in order to have the horses raced, else people will not attend the meets. I do not favor or condone racing as they have it at Fort Erie, Windsor, Victoria and Vancouver; but racing as conducted at the Woodbine, the Blue-bonnets, and at Hamilton, where it is in the hands of respectable people, most of whom are interested in horse-breeding, is on an entirely different plane. I am entirely in favor of eliminating the privileges of the hand-book men,

Control of Race

ay never become any man's honor... of Canada... been unani... porters of Mr... That possi... ankly maintai... here are, how... devotees of the... ing is necessary... eding, and that... o encourage rac... were admirably... ord before the... wa a fortnight... were somewhat... e daily press... e trouble to ob... st week an in-... representations... Parliament... be the founda... in light-horse... developed by the... the best founda... for which he... red have given... ourage, an eno... other of our... tributes the fact... e has been ab... blood in the... being a pre-... er domesticated... ight horses are... The American... rted Thorough... key owes all... oughbred horse... age horses, the... n the Cleveland... liberal infusion... Canada, it will... mportation of... which began... a magnificent... strong, power-... quality. Clear... of this class of... oughbred horse... t famous pro-... ge, was bred... time our road-... are valued... possession of... e to the pres-... in the pedi-... annually, hun-... legged horses;... type, without

pool-selling, and betting in any other form than in a properly-controlled way on race-courses during the time the races are in progress. I was asked in the Committee if I was in favor of book-makers. I answered that I had no sympathy with the book-makers, but would recommend the pari-mutuel system, which is used at all the race-meetings in France, under the proprietorship of the French Government. In attempting to regulate gambling, the supporters of the Miller Bill have gone about the matter in the wrong way. The proper way would be to regulate racing, and thereby control the abuses that have grown up in connection with race-track gambling.

The Toronto Shorthorn Sale.

The annual joint auction sale of high-class Shorthorn cattle was held in the comfortable sale pavilion, at the Union Stock-yards, West Toronto, this year, on February 2nd and 3rd, and, as last year, proved a pronounced success, the attendance of breeders being the largest seen at a sale in this country in many years, and from nearly all the Provinces of the Dominion, and from several of the States of the neighboring Union. The cattle offered were up to a high standard of individual excellence and of popular breeding, many of them being high-class show animals, the bidding for such being exceedingly keen and spirited, especially in the female section of the offering, which was superior in quality to that of the males. The nine herds contributing to the sale were those of Sir George Drummond, W. C. Edwards & Co., Peter White, W. G. Pettit & Sons, J. A. Watt, John Miller, Miller Bros. John Miller, Jr., and Robert Miller, all Ontario herds except the first named, which is maintained at Beaconsfield, Que. The sale was admirably managed by Robt. Miller; the cattle were brought out in fine condition, reflecting credit on the herdsmen, while the auctioneers did splendid work, sustaining the interest with scarcely a break from start to finish. The highest price realized was \$2,000, for the beautiful and wealthily-fleshed red yearling heifer, Lomond's Mysie, contributed by Miller Bros., Brougham, Ont., bred by Geo. Amos & Son, Moffat, Ont., sired by Ben Lomond (imp.), dam Lancaster's Princess, by Old Lancaster (imp.). She was junior champion at the Toronto Exhibition last year. The second highest price was \$1,600, for Alexandrina 36th, a roan heifer coming two years next month, a heifer of grand form and quality, bred by Miller Bros., sired by Uppermill Omega (imp.), and out of Alexandrina 35th. These two went to the United States. The third highest price, \$1,485, was paid by a Manitoba breeder, H. L. Emmert, of East Selkirk, for Emma 47th, a massive roan heifer, of splendid quality, bred by W. C. Edwards & Co., sired by Missie Champion, dam Emma 37th (imp.). The average for 75 head sold for \$200 and upwards was \$365.53; and for the whole number of 129 sold the average was \$286.24, which is \$38 per head higher than the average for the 111 sold at the sale of 1909, a very gratifying result, and one which augurs well for the outlook for Shorthorn breeders. Following is the list of those sold for \$100 and upwards:

Table listing female cattle with columns for name, date, and price. Includes entries like Carnie C., March, 1901; H. C. Fry, \$ 155; Lucy of Pine Grove 2nd; Nov., 1905; F. W. Harding, Waukesha, Wis., 325; Athelstane Rosewood 2nd, Dec., 1907; F. W. Harding, 215; Woodfield Blossom, Aug., 1908; Thomas Johnson, Columbus, Ohio, 360; Village Fairy 10th, Feb., 1904; F. W. Harding, 135; Rosetta 15th, April, 1902; Robt. Failon, Neponset, Ill., 285; Rosa Hope 18th, April, 1908; Elmendorf Farm, Lexington, Ky., 550; Beatrice 8th, Feb., 1907; F. W. Harding, 300; Isabel Ruth 3rd, April, 1908; F. L. Fuller, Truro, N. S., 205; Morning Glory, July, 1901; F. L. Fuller, Emma 47th, Jan., 1907; H. L. Emmert, East Selkirk, Man., 1,485; Dido 22nd, Nov., 1907; Carpenter & Ross, Mansfield, Ohio, 195; Belmar Blythesome, Dec., 1907; W. A. Dryden, Brooklin, Ont., 320; Gloster Queen 5th; Sept., 1905; Thomas Johnson, 260; Princess Royal 5th, Feb., 1907; Elmendorf Farm, 200; Pine Grove Amaranth 2nd, March, 1907; Lessiter Bros., Orion, Mich., 285; Rosa Hope 19th, Jan., 1909; Elmendorf Farm, 480; Gloster of Ivanhoe 2nd, Nov., 1907; Elmendorf Farm, 220; Rosa Hope 16th, Nov., 1903; Andrew Pettit, Freeman, Ont., 900; Autumn Queen, May, 1908; S. Dymont, Barrie, Ont., 1,150; Rosa Hope 26th, March, 1907; Elmendorf Farm, 400

Table listing male cattle with columns for name, date, and price. Includes entries like Ontario Duchess of Gloster 10th; Oct., 1907; Elmendorf Farm, \$ 200; Missie of Pine Grove 9th, Sept., 1907; S. Dymont, 1,275; Belmar Lavendar 2nd, Jan., 1909; John Miller, Brougham, Ont., 400; Lady Ann 16th, April, 1908; Lessiter Bros., 430; Lady Charlotte, Sept., 1908; Prof. G. E. Day, O. A. C., Guelph, Ont., 495; Belmar Daisy, Nov., 1908; G. J. Roth, Boonville, Ind., 105; Lady Dorothy 31th, March, 1908; W. C. Sutherland, Saskatoon, Sask., 350; Belmar Avene, April, 1909; W. C. Sutherland, 105; Princess Royal 7th, Nov., 1908; Elmendorf Farm, 340; Duchess of Gloster 9th, Sept., 1907; S. Dymont, 400; Belmar Dorothy, Feb., 1909; W. C. Sutherland, 100; Village Lassie 3rd, Nov., 1908; D. Tietjen, Belvina, Iowa, 500; Woodfield Lady, May, 1908; Elmendorf Farm, 400; Beatrice 25th, Jan., 1906; Thos. Johnson, 375; Princess Maud, March, 1899; Robt. Miller, Stouffville, Ont., 110; Lucy of Pine Grove 3rd, Jan., 1908; F. W. Harding, 280; Pine Grove Duchess of Gloster, Sept., 1904; J. M. Gardhouse, Weston, Ont., 250; Vanda 5th, Feb., 1908; Thos. Johnson, 400; Lady Clara, Nov., 1908; Thos. Stanton, Aurora, Ill., 150; Crimson Bell, May, 1900; Carpenter & Ross, 125; Village Fairy 14th, Dec., 1905; R. Fallon Grand Master, Sept., 1908; Alex. Kerr, Winthrop, 200; Carnation, Feb., 1908; Elmendorf Farm, 260; Avene 11th, Oct., 1903; C. J. Roth, 150; Lady Butterfly, Jan., 1908; Miller Bros., 500; Gloster of Ivanhoe 3rd, Nov., 1908; Thos. Johnson, 250; Miss Howie 9th, April, 1901; R. A. Oliver, Galt, Ont., 235; Rosetta 18th, Sept., 1907; Carpenter & Ross, 510; Matchless 38th, Oct., 1908; W. C. Sutherland, 135; Belmar Bessie 2nd, July, 1905; James Brodie, Bethesda, Ont., 100; Pure Gold, Sept., 1908; D. C. McLaren, Carleton Place, Ont., 150; Princess Royal 2nd, April, 1903; W. C. Sutherland, 575; Collynie Rosewood 3rd, Feb., 1902; F. R. Edwards, Tiffin, Ohio, 220; Pine Grove Ruby 11th, Dec., 1906; T. Stanton, Oakwood, Wis., 260; Duchess of Gloster 40th, Nov., 1907; F. L. Fuller, 100; Lomond's Mysie, April, 1908; Elmendorf Farm, 2,000; Belmar Butterfly, July, 1908; Mr. McCrea, Port Elgin, Ont., 105; Handsome Lady 4th, Sept., 1908; W. C. Sutherland, 320; Kenwood Lass, Oct., 1904; E. Ratcliffe, East Oro, Ont., 130; Princess Royal 25th, March, 1908; Elmendorf Farm, 160; Crimson Bell 4th, Aug., 1903; Mr. McCrea, 105; Lady Avondale, Jan., 1909; Sir Wm. Van Horne, East Selkirk, Man., 625; Princess Royal 3rd, Oct., 1905; C. J. Roth, 275; Autumn Rose, Oct., 1907; Miller Bros., 300; Alexandrina 36th, March, 1908; Thos. Johnson, 1,600; Village Queen 2nd, July, 1908; H. L. Emmert, 350; Countess Beryl, Aug., 1907; Elmendorf Farm, 150; Lady Lancaster; Oct., 1905; Robt. Miller, 165; Pine Grove Secret 6th, March, 1908; L. A. Armstrong, Yarmouth, N. S., 105; Vanda 2nd, Jan., 1904; F. W. Harding, 310; Waterloo Princess 39th, Sept., 1907; Elmendorf Farm, 290; Mina Countess, March, 1906; S. Dymont, 290; Rosebud 15th; Oct., 1904; L. A. Armstrong, 125; Belmar Amaranth, Jan., 1909; G. J. Roth, 105; Village Rose, April, 1905; T. Stanton, 110; Waterloo Favorite, Dec., 1907; H. L. Emmert, 265; Sittlyton Amaranth 6th, April, 1903; Rosenberg & Edwards, Ohio, 225; Missie's Maid, Oct., 1908; Ontario Agricultural College, Guelph, 405; Nonpareil Queen, July, 1907; C. E. Young, 170; Dorothy's Rose, March, 1906; Jas. Brodie, 150; Matchless 50th, Jan., 1909; J. T. Hodgson, Westmount, P. Q., 145; Fry's Star 5th, May, 1908; Carpenter & Ross, 550; Mollerstain 10th, Feb., 1908; G. J. Roth, 115; Sally 16th, March, 1908; H. L. Emmert, 250; Red Missie, March, 1907; D. Sinclair, 130; Tara, Ont., 130

Table listing more cattle with columns for name, date, and price. Includes entries like Golden Wreath 14th, March, 1907; F. W. Harding, \$ 270; Scottish Jilt 3rd, Dec., 1907; F. W. Harding, 715; Ruby of Nonpareil, May, 1907; L. A. Armstrong, 150; Can. Duchess of Gloster 37th, May, 1908; Elmendorf Farm, 140; Maud 18th, Dec., 1907; Carpenter & Ross, 200; Pine Grove Nonpareil 10th, March, 1908; D. H. Rusnell, Stouffville, Ont., 125; Symphony, Sept., 1906; J. Caswell, Saskatoon, Sask., 175; Golden Fairy, Jan., 1908; John Stanton, 150; Village Princess, March, 1907; C. A. Cameron, 140; Sybil, Jan., 1909; W. Miller, Wilfred, Ont., 100; Rosetta 19th, Sept., 1908; Carpenter & Ross, 160; Village Fairy 6th, June, 1901; W. C. Sutherland, 200; Silver Light, April, 1909; W. H. Corelba, Fullerton, Ont., 125

BULLS.

Table listing bulls with columns for name, date, and price. Includes entries like Village Swell, March, 1909; Robt. Failon, Neponset, Ill., \$ 430; Orange Prince, Jan., 1907; C. A. Archibald, Truro, N. S., 180; Lancaster, Nov., 1907; W. J. Shortreed, Walton, Ont., 150; Fyvie Knight, Jan., 1909; J. S. Howard, Sutton, Ont., 105; Royal Marquis, August, 1908; Jas. Kendrick, Ettrick, Ont., 185; Good Times, April, 1908; Geo. McKee, Winthrop, Ont., 265; Grand Master, Sept., 1908; Alex. Kerr, Winthrop, Ont., 260; Woodfield Victor, Aug., 1908; G. J. Roth, 550; Ringmaster, Nov., 1908; J. Hyslop, Stratford, Ont., 125; Royal Edward, Sept., 1908; Jas. Leask, Taunton, Ont., 110; Proud Duke 2nd, Dec., 1908; W. Ormiston, Columbus, Ont., 250; Royal Oak, Oct., 1908; R. E. Colthard, St. Mary's, Ont., 150; Royal Diamond, Oct., 1908; C. A. Cameron, Cataract Jct., Ont., 175; Marigold Sailor, Nov., 1903; Boyd Burk, Brougham, Ont., 180; Bandolier, March, 1907, 115; Prince Victor, Jan., 1909; John Campbell, Woodville, Ont., 270; Master Mason, Jan., 1909; J. G. Barron, Carberry, Man., 305; Goldie's Champion, Oct., 1908; N. Wise, Clinton, Ont., 160; Ottawa, Nov., 1908; Wm. Chase, Grand Valley, Ont., 100; Royal Choice, Jan., 1909; Peter Stewart, Everton, Ont., 120; Count Arthur, May, 1908; R. & A. Oliver, 125; Royal Hero, Dec., 1908; E. Martindale & Sons, Mt. Healy, Ont., 105; Silver Light, April, 1909; W. H. Corelba, Fullerton, Ont., 125; Seventy-five animals sold for an average of \$365.60; 129 head sold for \$86,925, an average of \$286.24.

Western Ontario Clay Workers.

The sixth annual convention of the Western Ontario Clay-workers' Association was held in the Town of Essex, February 3rd, 1910, the members also taking in the big corn show, which was running the same week.

The object of the association is not to raise prices of brick or tile, but for the members to confer with one another as to the difficulties met with in the business, to get all information possible from specialists, and to foster good fellowship and acquaintanceship among its members.

At the meeting in Essex, such subjects as "Mechanical Draft vs. the Stack," "Draining Machines" (by Mr. McCaughey, general manager of Buckeye Traction Ditcher Co., Ohio), "Essentials of Kiln Construction," "Exchange of Ideas and Good Fellowship" (Jack Miner, Past Pres.), "Fuel for Tile Burning, wood, coal or gas," and other like topics were discussed.

Mr. McCredie, of Elgin Co., Ont., President of the Dominion Clay-workers' Association, who was present, spoke on the question of having a Government technical school for clay-workers established. This scheme seems to be in much favor with the workers in clay. The demand for clay products, tile especially, has increased enormously, and expert knowledge as to different clays, and how they should be treated, is much needed. Officers elected: President, A. W. Hill, Essex; 1st Vice-President, Mr. Waddell, Blenheim; Secretary-Treasurer, Alfred Wehmann, Cairo, Lambton County.

Dominion Swine-breeders' Annual Meeting.

At the annual meeting of the Dominion Swine-breeders' Association, called to order in Toronto, February 3rd, by President D. C. Flatt, registrations for the different breeds in volume 20 were reported by the directors as follows: Berkshires, 1,214; Yorkshires, 1,775; Chester Whites, 607; Poland-Chinas, 61; Tamworths, 355; Duroc-Jerseys, 44; Essex, 5. The statement of registrations, according to Provinces, is as follows: Ontario, 2,013; Manitoba, 214; Saskatchewan, 164; Alberta, 219; British Columbia, 74; Quebec, 795; New Brunswick, 98; Nova Scotia, 84; Prince Edward Island, 56; United States, 18; making a total of 3,735 registrations. Transfers were 407.

Total receipts for 1909, on account of the swine records at Ottawa, were \$3,121.60. Besides the memberships, the profits from registrations for 1909 amounted to \$314.16. The financial statement shows cash on hand as per last report, \$1,886.23; total receipts, \$5,540.16; cash on hand, Dec. 31st, 1909, \$1,393.12.

Some rather pointed discussion developed over the matter of a grant to the Western Fair, London. The President suggested that the grant to this fair be cut off entirely until the fair board saw fit to increase the prizes for hogs to a decent amount. Motion was finally made that the Dominion Swine-breeders' Association discontinue its grant to the Western Fair unless they would raise their prize-list and duplicate the prizes offered by the association. It was proposed in amendment and carried, that the grant be given if the Western Fair Board would raise its prize-list for swine by \$25 to each class.

It had been requested that provision be made for recording Hampshire swine in connection with the Dominion swine record. The recommendation of the directors that the Hampshires be taken in and arrangements made for registration of them was adopted by the meeting.

A new constitution had been drawn up for submission to and ratification by the association. The directors, however, at their meeting held prior to the general meeting, were not entirely satisfied with the constitution, and suggested that the matter be referred back to the executive. On motion of Major Hood this was done, the constitution being referred to the executive to be considered, printed and distributed and taken up again next year.

On motion of Wm. Jones, seconded by R. H. Harding, the association adopted the new set of rules of entry drawn up, which have the effect of admitting to registration in the Canadian National Records pigs of the American breeds recorded in any of the American records certified by the United States Secretary of Agriculture.

The usual resolution regarding the Ontario Veterinary College was passed, as at the other stock-breeders' meetings.

What might be taken as rather a significant utterance was made by the Live-stock Commissioner, Dr. J. G. Rutherford, who in discussing the status of the hog-raising industry, referred to a demand from the West some time back for \$8,000,000 to establish a packing plant, though later their request had been very considerably moderated. However, while the Government had not taken any action in the matter, there was probably the germ of a great idea in their suggestion. While Dr. Rutherford did not specifically say so, it was rather to be inferred from his remarks that the Department of Agriculture had contemplated some efforts to establish a great dead-meat trade, not only in the West, but all over the country, to be conducted by a company working on bonds held by the Government.

Officers were elected as follows: President, Wm. Jones, Zenda; Vice-President, G. R. Douglas, Mitchell; Director for the Berkshires, S. Dolson, Norval Station; Yorkshires, J. E. Brethour, Burford; Chester Whites, D. DeCoursy, Bornholm; Tamworths, A. C. Hallman, Breslau; Essex, Jos. Featherston; Poland-Chinas, W. M. Smith, Scotland; Ontario Agricultural College, Prof. G. E. Day; Gen. Director, D. C. Flatt. Representatives to fair boards—Canadian National, D. C. Flatt and S. Dolson; Central Canada, R. Morrow and R. J. Garbutt; Western Fair, Geo. Douglas and H. S. McDiarmid; Provincial Winter Fair, Prof. G. E. Day, Major G. B. Hood, Wm. Jones and R. H. Harding; Eastern Ontario Live-stock and Poultry Show, Wm. Jones, R. J. Garbutt, P. O. Collins and J. C. Smith.

The Executive Committee of the Dominion Swine-breeders' Association for 1910 is as follows: Wm. Jones, Zenda; Geo. Douglas, Mitchell; J. E. Brethour, Burford; D. C. Flatt, Millgrove; A. P. Westervelt, Toronto.

Expert judges were recommended as follows: Canadian National Exhibition, Toronto: Yorkshires—J. E. Brethour, Burford; R. J. Garbutt, Belleville; Tamworths—J. C. Nichol, Hübrey, Berkshires—H. G. Clark, Georgetown; reserve, J. J. Wilson, Milton. Chester Whites—Geo. Bennett, Charing Cross; reserve, R. J. Garbutt, Belleville. Bacon hogs—J. E. Brethour, Burford; R. J. Garbutt, Belleville; J. C. Nichol, Hübrey. Western Fair, London: Yorkshires and Tamworths—G. B.

Hood, Guelph; reserve, A. C. Hallman, Breslau. Berkshires—Frank Teasdale, Concord; reserve, Peter McEwen, Kirtch. Chester Whites—G. B. Hood, Guelph; reserve, Jos. Featherston, Streetsville. Central Canada Exhibition, Ottawa: Yorkshires and Tamworths—D. C. Flatt, Millgrove; reserve, R. J. Garbutt, Belleville. Berkshires—R. Vance, Ida. Chester Whites—A. A. Colwill, Newcastle. Ontario Provincial Winter Fair, Guelph: Yorkshires and Tamworths—Prof. G. E. Day, Guelph. Berkshires—J. J. Wilson, Milton. Chester Whites—G. B. Hood, Guelph. Bacon hogs—J. C. Nichol, Hübrey; D. C. Flatt, Millgrove; R. J. Garbutt, Belleville. Dressed carcasses—Wm. Jones, Zenda.

The late Sir George Drummond.

The death of Sir George Drummond, of Montreal, which occurred on February 2nd, in the 81st year of his age, has removed from the activities of business life in Canada a prominent, successful and generous personality. He was essentially what is called a "self-made man." He was born in Edinburgh, Scotland, in 1829, came to Canada in 1854, and entered the Redpath Sugar Works, in Montreal, and later became the head of the firm, and president of the Bank of Montreal, a position he held at the time of his death. He was one of the men who undertook the development of the Nova Scotia coal mines, and the Drummond colliery in that Province is named after him. He was a generous but discriminating patron of the fine arts, and of charitable institutions. He founded, at his own expense, St. Margaret's Home for Incurables, and was a trustee of the Victorian Order of Nurses. He was called to the Canadian Senate by the Marquis of Lorne, when Governor-General, and was created a Knight by the King on His Majesty's birthday, in 1904, in consideration of valuable services rendered to Canada in many ways. He is survived by his second wife and three sons.

Sir George was best known to the farmers and stock-breeders of Canada as owner of Huntlywood Farm, at Beaconsfield, Que., where he maintained a beautiful summer home, splendid herds of Shorthorn and Kerry cattle, and a fine flock of Southdown sheep, representatives of which were under the able management of Wm. H. Gibson, farm superintendent, successful winners of first-class honors at leading exhibitions in Canada and the United States, the grand championship at the Chicago International for best fat sheep of any breed having been four years in succession won by a Southdown from the Huntlywood flock. Fine specimens of his Shorthorns were in the sale list at Toronto on the day of Sir George's death.

Dominion Sheep-breeders' Meeting.

A more cheerful-looking body of men were welcomed to the annual meeting of the Dominion Sheep-breeders' Association by President Andrew Whitelaw than were assembled a year ago. The virtual re-opening of the American market for pure-bred sheep, by the lifting of the 30-day quarantine, had removed a black cloud from the sheep-breeders' horizon, and the meeting this year was characterized by all its old-time hopefulness. A hearty vote of thanks was tendered Dr. Rutherford, Dominion Live-stock Commissioner, for his efforts in securing the removal of this quarantine, as well as holding sales in Eastern and Western Canada, to help exploit the home market. The report of the directors indicated that the financial statement this year showed a balance on hand of \$2,551.07; out of this amount there is charged against the Association \$488.65. Allowing about \$1,500 for the printing of the Sheep Record, the balance remaining for distribution among the sheep-breeders of the various Provinces is about \$600. Registrations last year numbered 2,572; transfers, 570. Registrations by Provinces show 1,647 for Ontario, 29 for Manitoba, 20 for Saskatchewan, 129 for Alberta, 50 for British Columbia, 600 for Quebec, 28 for New Brunswick, 1 for Nova Scotia, and 68 from the United States. The statement by breeds is as follows: Cotswolds, 233; Lincolns, 38; Leicesters, 754; Oxfords, 223; Shropshires, 1,157; Southdowns, 36; Dorset Horns, 25; Hampshires, 33; Suffolks, 68; and Cheviots, 5. The membership is divided chiefly between Ontario and Quebec, with 120 from the former Province, and 114 from the latter, leaving only 20 for all the other Provinces. It was recommended that the \$600 profits be divided among the Provinces, according to the number of registrations received from each, which makes the following division for 1909: Ontario, \$394.65; Manitoba, \$6.95; Saskatchewan, \$4.80; Alberta, \$30.90; British Columbia, \$11.98; Quebec, \$113.77; New Brunswick, \$6.71; Nova Scotia, 24 cents. The statement of receipts and expenditures for conducting the Sheep Record for 1909 showed a balance owing to the Record Committee of \$488.65, the total outlay on account of the Association being \$631.77. A form was suggested for the printing of the first volume of the Sheep Record, the cost of printing of which was esti-

mated at about \$1.25 per page, with 25 cents for binding. Attention was directed to the number of sheep sent West in the cars supplied by the Live-stock Association. In 1908 only 14 were sent out, while last year 84 head were shipped, the increase being chiefly attributed to the fact that the closing of the American markets had caused Ontario breeders to turn their attention to the West. The increase was taken as indicative of what might be done if Ontario breeders made an organized effort to secure orders from the West.

A proposed new constitution for the Association had been drawn up and submitted to the directors, but as it was not entirely satisfactory to them, it was suggested that the matter be referred back to the executive. Col. D. McCrae explained that the proposed constitution would confine the Association to matters of pedigree registration, instead of allowing scope for dealing with wider interests affecting sheep-breeding over the country. A. W. Smith, while agreeing that the Association should have such wider powers, pointed out that the proposed constitution allowed as much latitude as would conform with the Pedigree Act, under which it was incorporated. He thought, however, that the matter should be taken up with the Department of Agriculture, with a view to securing a change in the Pedigree Act, permitting the desired authority. Dr. Rutherford, being called upon, observed that, while wide powers are a good thing in many ways, they are sometimes attended with disadvantages. The other Associations have not asked for a change in the Pedigree Act, but he thought it likely that, if no objections were raised by them, the amendment to the Pedigree Act desired by the sheep-breeders might possibly be secured in the early part of the next session of Parliament; it would not be expedient to introduce it at the present session. Considerable interest was evoked by the report of the special committee, appointed a year ago to look into the wool question, and, if possible, to confer with the manufacturers regarding the advisability of working for a change in the tariff on wool.

Lack of space prevents more than a brief mention in this issue of the points elicited. It appears that, while there is supposed to be a duty of three cents a pound on such wool as is grown in Canada, the duty is practically uncollected, the excuse being that a great proportion of the wool imported into Canada is not precisely identical with the Canadian product. Then, too, the manufacturers have been allowed to import tops and noils without paying duty. The Department of Customs has been disposed to deal leniently with the manufacturers as to taxation of imported raw or partially-finished materials, owing to the pessimistic representations the manufacturers have been continually making. An attempted conference with woollen manufacturers in Toronto had come to naught, only one or two manufacturers attending, and one of them interested in carpets. The committee concluded that, to satisfy the manufacturers, an increase in duty on wool, calculated to put, say, 1½ millions in the pockets of our wool-growers, would have to be accompanied by increased protection on woollen goods, that would take 14 millions out of the pockets of Canadian consumers. Under these circumstances, the committee backed up by the general feeling of the meeting, were indisposed to press for an increase of the duty on wool, but thought the duty of three cents now in the tariff schedule should be collected. It was also felt to be an injustice to permit the free importation of tops and noils. It was finally decided, on the motion of Col. McCrae, seconded by J. Lloyd-Jones, that the committee appointed a year ago continue its work, with the addition of the name of A. W. Smith. Another resolution commended the Ontario Government for assuming control of the Ontario Veterinary College and raising the standard of veterinary education. It also urged upon the Government the passage of a law to secure the proper recognition of the veterinary profession, and the consequent protection of owners of live stock from persons practicing as veterinary surgeons without proper qualifications.

It was decided to turn over the nomination of expert judges at the exhibitions to the Ontario Sheep-breeders' Association. Officers were then elected as follows: President, Andrew Whitelaw, Guelph; Vice-President, J. G. Hanmer, Burford. Executive Committee—A. Whitelaw, J. G. Hanmer, A. W. Smith, and Col. McCrae. Directors—For Cotswolds—Col. McCrae; Leicesters—Jas. Snell; Southdowns—Geo. Jackson; Dorsets—R. H. Harding; Lincolns—J. Parkinson; Oxfords—J. E. Cousins; Shropshires—W. A. Dryden. General Directors—John Campbell and A. W. Smith. Representatives to Fair Boards: Canadian National—W. A. Dryden and J. G. Hanmer; Central Canada—N. F. Wilson; Western Fair—Lt.-Col. McCrae and R. H. Harding; Provincial Winter Fair—A. W. Smith, J. Jackson, Lt.-Col. McCrae and Robert Miller; Eastern Ontario Live-stock and Poultry Show—A. Whitelaw and A. W. Wallace, R. Richardson and N. F. Wilson.

The following judges for exhibitions were nominated:

Canadian National Exhibition, Toronto.—Cotswolds—S. J. Lyons, Norval; Prof. G. E. Day, Guelph. Leicesters—C. E. Wood, Freeman; re-

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serve, John Orr, Galt. Lincolns—J. T. Gibson, Denfield. Oxfords—Prof. G. E. Day, Guelph; reserve, J. E. Cousins, Harriston. Hampshires and Suffolks—Prof. G. E. Day, Guelph; Prof. H. S. Arkell, St. Anne de Bellevue, Que. Southdowns—J. H. Leet, Mantua, Ohio; reserve, F. Klienheintz, Medicine, Wis. Dorsets—John Campbell, Woodville; reserve, John Jackson, Abingdon. Shropshires—H. N. Gibson, Millbrook, N. Y.; reserves, F. Klienheintz, Medicine, Wis., and W. H. Beattie, Wilton Grove.

Western Fair, London.—Cotswolds—S. Dolson, Alloa; Robt. Vance, Ida. Leicesters—Wm. Douglas, Tuscarora; reserve, H. B. Jeffs, Bond Head. Lincolns—Herbert Lee, Highgate. Oxfords—J. E. Cousins, Harriston; reserve, J. E. Birdsall, Bird-sall. Hampshires and Suffolks—F. C. Biggs, West Flamboro; John Campbell, Woodville. South-downs—John Jackson, Abingdon; reserve, J. G. Hamner, Brantford. Dorsets—J. G. Hamner, Brantford; reserve, J. M. Gardhouse, Weston. Shropshires—J. Shields, Caistorville; reserve, Geo. Hindmarsh, Ailsa Craig.

Central Canada, Ottawa.—Lincolns—Leonard Parkinson, Eramosa. Oxfords—W. A. Tolton, Walkerton. Shropshires—D. G. Hamner, Burford; reserve, Geo. Hindmarsh, Ailsa Craig.

Ontario Provincial Winter Fair, Guelph.—Leicesters—Jas. Douglas, Caledonia. Lincolns—Jno. Gardhouse, Highfield. Oxfords—J. E. Cousins, Harriston. Shropshires—J. C. Duncan, Orchard Park, N. Y.; reserve, W. H. Beattie, Wilton Grove.

International Live-stock Exposition, Chicago.—Leicesters—J. M. Gardhouse, Weston; reserve, Jno. Orr, Galt. Cotswolds—Prof. G. E. Day, Guelph; Robert Miller, Stuffville.

Ontario Sheep-breeders' Association.

An official account of the establishment of the Experimental sheep flocks in Ontario, made possible through the financial co-operation of the Provincial Department of Agriculture, was rendered at the annual meeting of the Ontario Sheep-breeders' Association by Lieut.-Col. R. McEwen and Jno. Campbell. Mr. McEwen thought the experiments would be the means of giving the people of the Province a much better appreciation of the value and importance of the sheep industry than they have hitherto had. Mr. Campbell remarked that the committee had been very strict in carrying out the instructions of the association as to the selection of ewes and rams. Election of officers resulted as follows: President, Geo. Telfer; Vice-President, John Campbell; Secretary, A. P. Westervelt, Toronto; Executive Committee, the above, with J. G. Hamner and Jos. Douglas. Delegates to the various fair boards were named as follows: Representative to the Canadian National, Geo. Telfer; to the Western Fair, Jas. Snell, of Clinton, and Jno. Kelly, of Shakespeare; Central Canada, Jas. Underhill, of Claremont. Considerable discussion took place as to the time when the association would recommend that sheep-judging be done at Toronto. It was first proposed to ask that the judging be concluded by Tuesday of the second week of the fair, but the amendment, which carried, requested that the judging be commenced by Friday afternoon, one o'clock, the first week of the show, and be concluded as soon as possible.

Muzzle the Dogs.

Following a conference in Toronto of the Dominion Veterinary Director-General with the Provincial Health Officer, it is announced from Ottawa that an order was issued last Saturday by the Dominion Department of Agriculture, directing that, as rabies is known to exist in many widely-separated parts of Western Ontario, all dogs in that part of the Province lying west of the eastern boundaries of York and Simcoe must either be securely chained in an outhouse or other building, or kept under lock and key, or else kept constantly muzzled with effective metallic muzzles in a manner satisfactory to the veterinary inspectors of the Department. In any municipality where rabies is known actually to exist, the muzzling privilege may be withdrawn, in which case all dogs must be detained or isolated by being chained or kept under lock and key. For infringement of the regulation, a maximum fine of \$200 may be imposed under the Federal Act, and under the Provincial Health Act a fine of \$20 for each infraction of any regulation of the Provincial Health Board may be exacted.

To protect its water supply, later to form a civic park, and to establish what is expected eventually to prove a profitable investment, the City of Guelph is reported to have undertaken the reforestation of 168 acres of land in the vicinity of Arkell, forming the watershed of the springs giving the city its present water supply. A portion of the land, it is said, will reforest itself, but the greater area will be set out with white pine and other select trees, being shipped out from Germany. About twenty-five acres will be planted this spring, and the whole will be laid out in a park-like scheme of drives.

The Walker-Gunn Sale.

The dispersion sale at West Toronto, on Feb. 4th, of the Shorthorn herds of Walker Sons, Walkerville, and the executors of the late Donald Gunn, Beaverton, Ont., can hardly be said to have been a success. Coming after the large sales of the two previous days, at the same place, there were evidently too many cattle on offer for the occasion, the consequence being a bargain-sale for those who were present on the last day, as many of the animals were well bred and good individuals. We append the list of those selling for \$100 and upwards:

FEMALES.	
Mysie of Huron, Nov., 1904; H. Potter, Chatham, Ont.	\$165
Belmar Mayflower, April, 1905; J. Scott, Highgate, Ont.	175
Village Queen 5th, Oct., 1903; F. L. Fuller, Truro, N. S.	205
Roan Mary, April, 1904; Carpenter & Ross, Mansfield, Ohio	200
Collynie Mistletoe, April, 1903; Wm. Dyer, Columbus, Ont.	205
Dunrobin Mistletoe, Sept., 1907; W. J. Abernethy, Bond Head	105
Trout Creek Lavender, Feb., 1904; John Davidson, Ashburn	200
Essex Mary, Feb., 1907; W. C. Sutherland, Saskatoon	100
Dumna-Glass Nonpareil 3rd; Jas. Hyslop, Stratford	128
Golden Lustre, Sept., 1904; B. Doble, Sunderland	103
Patricia, March, 1905; James Miller, Sunderland	112
Rosedale 6th; R. Rowntree, West Toronto	100
Dunrobin Mayflower, June, 1906; C. H. Cameron, Shelburne	103
Dunrobin Clipper, Sept., 1906; Wm. McDermitt, Fergus	170
Pine Grove Clipper 8th, Nov., 1903; W. C. Edwards & Co., Rockland	165
BULLS.	
Prime Sailor, Nov., 1905; F. L. Fuller, Truro, N. S.	\$125
Dunrobin Clipper Boy, Oct., 1908; J. Donaldson, South Zora	103

Dominion Cattle Breeders.

The annual meeting of the Dominion Cattle-breeders' Association was held at the Walker House, Toronto, on Wednesday, January 2nd, President John Gardhouse in the chair. Secretary Westervelt read the minutes of last annual meeting, which were approved. The President, speaking of the directors' report, said he believed there was a bright future ahead of the breeders of this country, but strongly advised all to put forth their best efforts to improve the quality of the live stock. The high prices of all classes of butchers' animals are an incentive to use redoubled energy, not only to increase the quality, but to increase the numbers as well, believing that Ontario is, or should be, by the natural order of things, the breeding ground for the Dominion for pure-bred stock. A. W. Smith, M.P., said we should formulate some scheme for a more general advertising of our stock, wherein all the different breeds could be obtained, believing it would result in increased interest being taken in the breeding of pure-bred stock. He also strongly advised that united action be taken to deal liberally with Western breeders in supplying that market with breeding stock. Prof. Day thought a more liberal advertising would result in much good to the breeders. Dr. Rutherford maintained that the breeders of Ontario had been very slack in looking after their home market, catering altogether too much to the United States market, which at any time, through the breaking out of some contagious disease or other cause, would be closed to them. "The West," said the Doctor, is the natural channel for your surplus stock. Cultivate it, sell for a reasonable price, do a little sacrificing if necessary, but get the trade from the West coming to Ontario."

A resolution was unanimously passed, urging the management of the Canadian National Exhibition to proceed with the erection of a live-stock judging arena; also another, commending the Ontario Government for the taking over of the Veterinary College and raising the standard of education, and asking for more stringent legislation for the protection of the profession. The directors' report showed that during the year 1909 eight carloads of pure-bred stock were sent West by the Live-stock Associations, the sales being all made by the breeders, and in most cases the shipments consisted of consignments from several breeders. The receipts in connection with these eight shipments were \$1,737.56, and the expenditures, \$1,750.98. The number of animals sent out was 183, as follows: Horses, 25; cattle, 70; sheep, 84; swine, 4.

The financial statement for the year, ending Dec. 31st, 1909, shows receipts, including \$380 cash on hand at beginning of year, to have been \$1,243.79, and expenditures, \$862, leaving a balance on hand of \$381.79.

The election of officers resulted as follows: President, John Gardhouse, Highfield; representative of Ontario Agricultural College, Prof. G. E. Day. Delegate to exhibitions—Toronto, John Gardhouse; London, A. W. Smith and Robt. Shaw; Ottawa, A. W. Smith and Robert Ness; Ontario Winter Fair, Guelph, John Bright, John Gardhouse, W. W. Ballantyne, R. Stevenson; Eastern Ontario Winter Fair, Peter White, John Gardhouse, W. F. Stephen and J. H. Grisdale.

Bread and the Cost of Living.

F. W. Thompson, Vice-President and managing director of the Ogilvie Milling Co., during the course of an interview contributes some thoughtful observations on the important subject—the cost of living—now occupying the public mind. The question is one that affects trade and commerce, and directly touches the individual well-being of the people. Mr. Thompson lays it down as fundamental that the country's prosperity depends on the prosperity of agriculture, and points out that the trouble is not that of the high cost of living, but of extravagant living and over-indulgence in luxuries. The per capita consumption of wheat flour in Canada, he points out, is but a little over one barrel per year, and of bread per day less than three cents. Though bread from time immemorial has been regarded as the staff of life, the average family spends more for amusement and reading in two months than their entire outlay for breadstuffs in a whole year. Few recognize the astonishing fact that bread consumption forms less than five per cent. of the total food supplies in the average family. Moral, eat more bread. He reminds the public also, when considering the cost of the loaf of bread delivered in Canadian city homes, that wages are 60 or 70 per cent. higher than abroad. Generally speaking, the higher cost of foodstuffs is due to the migration to the industrial centers, and can be remedied by greater development of the land, for which there is every opportunity in Canada.

Price Increases Since 1899.

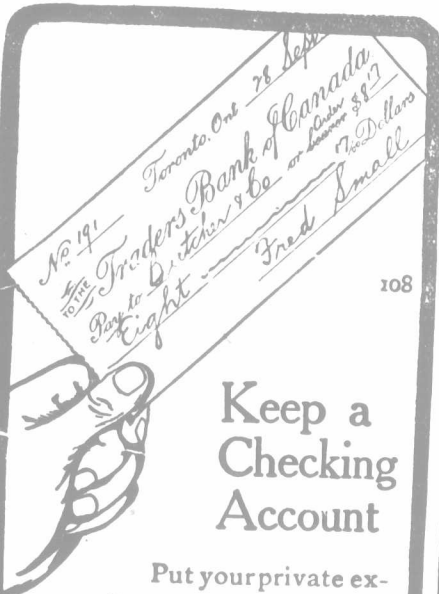
That there has been a very general increase in both wholesale and retail articles of food between the years of 1899 and 1908 is indicated by a report sent to the United States Senate by the Department of Commerce and Labor in response to a resolution introduced by Senator Crawford, of South Dakota. For purposes of comparison, the prices in 1899 are used as normal. The percentage of increases were about as follows: Bread, wholesale, 25.1; retail, 4.9. Butter, wholesale, Elgin, 29.8; creamery, extra, 27.5; dairy, 24.6; retail, 30.6; no quality indicated. Cheese, wholesale, 26.9; retail, 20.3. Coffee, wholesale, 3.9; retail, 5.0. Eggs, new laid, 39.8; retail, 36.2. Wheat flour, wholesale, spring, 43.6; winter, 26.8; retail, 24.4; no quality indicated. Lard, wholesale, 63.3; retail, 38.2. Beef, wholesale, fresh, 11.8; salted, 41.9; retail, fresh, 14.9; salted, 10.6. Dressed mutton, wholesale, 21.4; retail, 26.8. Bacon, wholesale, 54.5; retail, 52.9. Ham, wholesale, 21.9; retail, 31.8. Milk, wholesale, 30.0; retail, 18.1. Potatoes, wholesale, 70.6; retail, 25.5. Prices on sugar, tea, spices and soda crackers have been slightly reduced.

Toronto Exhibition Officers.

At a meeting of the Board of Directors of the Canadian National Exhibition Association in Toronto last week, officers were elected as follows: President, Geo. H. Gooderham, M.P.P.; 1st Vice-President, John G. Kent; 2nd Vice-President, Joseph Oliver. In addition to these three officers and Honorary President, W. K. McNaught, M.P.P., the following were elected to the Executive Committee: Mayor Geary, John A. Cooper and Ald. D. McBride. Standing committees were struck. The following are the chairmen of these committees: Manufacturers and Liberal Arts, George Booth; Horses, Wm. Smith; Harness Classes, W. J. Stark; Cattle, Robert Miller; Sheep and Swine, Robert Miller; Poultry and Pet Stock, Alderman John Dunn; Agricultural Industries, H. R. Frankland; Dairy, W. W. Ballantyne; Art and Education, John A. Cooper; Grounds and Buildings, Alderman R. H. Graham; Hospital and Sanitary, Dr. E. E. King; Dogs, John G. Kent; Special Attractions, ex-Mayor Joseph Oliver.

The third annual short course in fruit-growing at the Ontario Agricultural College was completed last week. The one hundred and ten students—fruit-growers in the Province—have returned to their homes to carry out on their farms the lessons they have learned.

The Toronto Open-air Horse-parade Association, in its eighth annual meeting, on Thursday, February 3rd, made preliminary arrangements for the annual horse show to be held on July 1st. The Secretary-Treasurer's report showed the Association to be in a flourishing financial condition. Noel Marshall was re-elected president.



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THE TRADERS BANK OF CANADA

Capital and Surplus \$6,350,000

MARKETS.

Toronto.
LIVE STOCK.

At West Toronto, on Monday, Feb. 7th, receipts numbered 61 cars, comprising 1,247 cattle, 53 sheep, 19 calves; quality of cattle better than for some weeks, especially exporters, of which there were about 40 carloads; trade good; prices firmer. Prime picked butchers', \$5.75 to \$6; loads of good, \$5.40 to \$5.75; medium, \$5 to \$5.25; common, \$4.50 to \$4.80; milkers, \$4 to \$6.25 each; calves, \$4 to \$4.50 per cwt. Sheep and lambs, unchanged; ewes, \$4.50 to \$5; lambs, \$6 to \$7 per cwt. Hogs, easier, \$8.25, fed and watered, and \$8, f. o. b. cars.

REVIEW OF LAST WEEK'S MARKET.

Trade was good for finished cattle, of which there are few coming forward in comparison with those of medium and common quality. Prices for the good, or, rather, the finished cattle, were firm, but all other classes were easier, at slightly lower quotations.

The total receipts of live stock at the City and Union Yards last week were:

	City.	Union.	Total.
Cars	169	170	339
Cattle	2,684	2,632	5,316
Hogs	3,553	1,612	5,165
Sheep	906	205	1,211
Calves	161	58	219
Horses	22	223	245

Exporters.—Export steers sold from \$5.25 to \$6.05, and one load at \$6.25; export heifers, \$5.25 to \$5.75; bulls, \$4.75 to \$5.25, but few brought the latter price.

Butchers.—Prime picked ripe or finished cattle sold from \$5.75 to \$6, and one extra load sold at \$6.25; loads of good, \$5.25 to \$5.60, the bulk going at \$5.40 to \$5.50; medium, \$4.80 to \$5.15; common, \$4.50 to \$4.75; cows, \$3 to \$4.25; canners, \$1.75 to \$2.25; bulls, \$2.50 to \$4.50.

Stockers and Feeders.—Dealers in stockers and feeders reported little doing, but what few were on sale sold at unchanged quotations.

Milkers and Springers.—Trade in milkers and springers was much better, owing to renewed demand from Montreal and Quebec dealers. Prices ranged from \$35 to \$60 each, with a few at a little more money.

Veal Calves.—Receipts were light, and prices firm, at \$3 to \$7.50 per cwt.

Sheep and Lambs.—Receipts of sheep and lambs are gradually falling off, but the demand was not greater than the supply, as prices have been so high as to be almost prohibitory to many people. Ewes sold at \$4.50 to \$5 per cwt., and rams, \$3.50 to \$4; lambs, of best quality, ranged from \$6.50 to \$7; picked lots of ewes and wethers sold at \$7.50 per cwt.

Hogs.—Prices were lower, although still good. Selects, fed and watered at the market, \$8.40, and \$8.15, f. o. b. cars at country points, which means that the farmers were still getting \$8 per cwt., delivered at their nearest station for their hogs.

Horses.—On account of the special cattle sales by auction at the Union Horse Exchange, the sale of horses was somewhat hindered, but Manager Smith informed us that he had sold a large number of horses by private sale. Mr. Smith further stated that trade in horses had not been as brisk in years as it is at present. Last week he sold a selected lot of 16 drafters, weighing from 1,500 to 1,800 lbs., at an average price of \$263 each. Prices this week ranged as follows: Drafters, \$180 to \$225; general-purpose, \$160 to \$200; expressers and wagon horses, \$175 to \$215; drivers, \$125 to \$200; serviceably sound, from \$85 to \$90 each.

BREADSTUFFS.

Wheat.—No. 2 white, \$1.08 to \$1.09, outside; No. 2 mixed, \$1.07 to \$1.08. Manitoba—No. 1 northern, \$1.13; No. 2 northern, \$1.11. Rye—68c., outside points. Peas—No. 2, 85c., outside. Barley—No. 2, 57c.; No. 3X, 55c., to 56c.; No. 3, 50c., outside. Oats—No. 2 white, 41c. to 42c., and 38c. to 39c., outside. Buckwheat—No. 2, 52c. to 53c., outside. Corn—American No. 2 yellow, 75c.; new No. 3 yellow, 71c., at Toronto. Flour—Ninety per cent. patents, for export, \$4.20 to \$4.25, in buyers' sacks, at outside points. Manitoba flour, at Toronto, first patents, \$5.70; second patents, \$5.20; third bakers', \$5.

COUNTRY PRODUCE.

Butter.—Receipts large, especially of the second quality. Demand fairly good, but the lower grades are easier. Prices ranged as follows: Creamery pound rolls, 28c. to 29c.; creamery solids, 26c. to 27c.; separator dairy, 23c. to 24c.; store lots, 20c. to 21c.

Eggs.—Receipts of new-laid are increasing. Prices firm, at 30c. to 32c. by the case; cold storage, 27c.

Honey.—Prices unchanged; extracted, 10 1/2c.; combs, per dozen sections, \$2.25 to \$3.

Beans.—Market firm. Primes, \$2 to \$2.10; hand-picked, \$2.10 to \$2.20, to retailers.

Potatoes.—Prices easy; receipts large, at 47c. to 50c. per bag, for car lots, on track, Toronto.

Cheese.—Market for cheese is still unchanged, at 13c. for large, and 13 1/2c. for twins.

Poultry.—Receipts light, but equal to demand on account of high prices. Turkeys, 18c. to 20c.; geese, 14c. to 16c.; ducks, 16c. to 18c.; chickens, 15c. to 17c.; fowl, 11c. to 13c.

HIDES AND WOOL.

E. T. Carter & Co., 85 East Front street, Toronto, report paying following prices: No. 1 inspected steers and cows, 12c.; No. 2 inspected steers and cows, 11c.; No. 3 inspected steers, cows and bulls, 10c.; country hides, 9c. to 9 1/2c.; calf skins, 11c. to 13c.; horse hides, No. 1, \$2.75; horse hair, per lb., 32c.; tallow, 5 1/2c. to 6 1/2c.; sheep skins, 90c. to \$1.10; wool and raw-fur prices on request.

HAY AND MILLFEED.

Hay.—Baled, car lots, on track, Toronto, \$14 to \$15 for No. 1; and \$13 to \$13.50 for No. 2.

Straw.—Baled, car lots, on track, Toronto, \$7 to \$7.50.

Bran.—Car lots, on track, Toronto, \$22.50 to \$23.

Shorts.—Car lots, on track, Toronto, \$24.00.

SEED MARKET.

There was no quotable change. Alsike, No. 1, per bushel, \$6 to \$6.25; No. 2, \$5.25 to \$5.75; red clover, No. 1, per bushel, \$7.50 to \$8.25; red clover (containing buckhorn), \$5.50 to \$6; timothy, bushel, \$1.40 to \$1.60.

Montreal.

The local cattle market was rather on the easy side last week, and there is a feeling that prices have seen the top, for the time being, at any rate. The offerings were rather lighter, but quite sufficient, and prices held about the same as previously. The strength of the English market, and the low freight rates from Portland, Me., and St. John, N. B., may have a tendency to tempt exporters to ship more freely, and this may be a firming influence, locally. Some choice steers were sold at 6 1/2c. per lb., but the range for choice stock was from 5 1/2c. to 6c. per lb. Fine stock was about 5 1/2c. to 5 3/4c., good was 5c. to 5 1/2c., medium was 4 1/2c. to 5c., and common was as low as 3 1/2c.

The supply of sheep and lambs was light, and demand for them was good. Lambs sold at 6 1/2c. to 7c. per lb., and sheep at 4 1/2c. Calves were in light supply, but no alteration took place in prices, the range being still 3c. to 3 1/2c. each, according to quality. The market for hogs showed little alteration, being, if anything, easier, at 9c. for selects.

Horses.—The market for horses contains some points of interest. The demand from local users is already commencing, the class of animals wanted being heavy draft. These are exceedingly scarce, and buyers are fearing that if they left off making their purchases till a little later on in the spring, they might have to pay more for them. There is a very active demand in the West for heavy drafts, Vancouver and the Northwest being in need of them. Prices continue steady, however, as follows: Heavy draft, weighing from 1,500 to 1,700 lbs., \$225 to \$300 each; light draft, 1,400 to 1,500 lbs., \$180 to \$240; small horses, weighing from 1,000 to 1,100 lbs., \$100 to \$150 each; old, broken-down animals, \$75 to \$100 each; and choice saddle or carriage animals, \$350 to \$500 each.

Dressed Hogs and Provisions.—Owing to the somewhat lower prices for live hogs, dressed hogs have declined somewhat in price, also. Sales of abattoir-dressed, fresh-killed stock are being made at 12 1/2c. per lb., country-dressed being 12c. to 12 1/2c. per lb. Provisions continue fairly steady. Extra-large hams, weighing from 25 lbs. upwards, sell at 15c. per lb.; large hams, 18 to 25 lbs., are 16c., and smaller ones, 16 1/2c. Hams with the bone out, rolled, are 17c. to 17 1/2c.; picnic hams, 14 1/2c.; English homeless breakfast bacon is 17 1/2c. to 18c.; Windsor backs, 18c.; Wiltshire, 17c.; other grades, 14 1/2c. to 15c. Lard is unchanged, extra pure being 16 1/2c. to 17 1/2c., and compound being 12c. to 13 1/2c. Barrelled pork ranges from \$23.50 to \$32 per barrel, beef being \$15.

Poultry.—Very little interest is being shown in the poultry market. Turkeys still range from 18c. to 19c. per pound for choicest, and from 14c. to 15c. for secondary grades; geese are 12c., ducks 17c. to 18c., finest chickens 15c. to 16c., and fowl 10c. to 12c. per lb. Demand is fair.

Apples.—Supplies continue liberal for this time of year, receipts being mostly from warehouses in this vicinity. Almost no No. 1 stock is being offered, and other stock is gradually strengthening in price; No. 2 apples are selling at auction at about \$2 to \$2.50 per barrel, No. 3 being \$1.25 to \$1.85.

Potatoes.—The situation continues very steady, some asking 60c. per 90 lbs. for choicest Green Mountains, in smaller quantities than carloads. As a general thing, however, carloads of best potatoes are quoted at 55c. to 57 1/2c. per 90 lbs., track, Montreal.

Eggs.—The milder weather had a weakening tendency on the egg market, and new-laid stock might be had last week at 38c. to 40c. per dozen, deliveries being larger than previously. Held eggs were steady, at 28c. for No. 1 stock, and 32c. for selects. On Monday, 7th, fresh-laid were quoted at 32c. to 34c., No. 1 hold 25c., and selects 28c., but the cold snap was considered likely to send prices up again.

IMPERIAL BANK OF CANADA

CHARTERED 1875

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

SAVINGS DEPARTMENT

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

Farmers' sale notes discounted. Branches throughout the Dominion of Canada.

Butter.—Fresh makes of creamery have been selling at 24c. to 24 1/2c. per lb., and choicest held stock had a range of 25c. to 26c. per lb., lower grades being, if anything, cheaper than formerly. Dairy butter was fully as cheap as previously, being 21c. to 22c.

Cheese.—Market very strong. Prices are constantly advancing on account of the demand from England. Quebec cheese cannot be had at less than 11 1/2c. to 12c., or Ontario at less than 12 1/2c. to 13 1/2c. per lb.

Grain.—The market for oats experienced a further advance. No. 2 Canadian Western oats selling in car lots, store, at 46c. to 46 1/2c. per bushel; No. 2 oats at 45c. to 45 1/2c.; No. 2 white Ontario, 44c. to 44 1/2c.; No. 3, 43c. to 43 1/2c.; No. 4, 42c. to 42 1/2c.; No. 2 barley, 59 1/2c. to 60c.; No. 3 barley, 58 1/2c.; No. 4, 56 1/2c. and feed barley, 54 1/2c.

Flour.—The market for flour is practically unaltered, being fairly active, at \$5.80 per barrel, in bags, for Manitoba first patents; \$5.30 for seconds, and \$5.10 for strong bakers'. Ontario flour is \$5.50 to \$5.60 for patents, and \$5.10 to \$5.20 for straight rollers.

Feed.—Manitoba bran is still selling at \$22, and shorts at \$23 per ton. Ontario bran is \$22.50 to \$23, and middlings at \$23.50 to \$24 per ton, pure grain mouille being \$31 to \$33, and mixed mouille, \$27 to \$29. Gluten meal is quoted at \$31 to \$32, and oil cake at \$35.50 to \$36.

Hay.—The market is unchanged.

Hayseed.—Dealers are now commencing to ship seed back into farmers' hands, demand for it being fairly good. They are now quoting timothy seed at \$4.75 to \$7 per 100 lbs., f. o. b., Montreal. Red clover is quoted at \$18 to \$20 per 100 lbs., and alsike at \$14 to \$17. There is a certain amount of red clover and alsike still coming in from farmers, but no timothy.

Hides.—Tallow has advanced slightly, being now 1 1/2c. to 4 1/2c. per lb. for rough, and 5c. to 6c. for refined. Beef hides are steady, at 10c., 11c., and 12c. per lb., calf skins 12c. and 14c., sheep skins \$1 each, and horse hides \$1.75 to \$2.25 each.

Chicago.

Cattle.—Steers, \$4.75 to \$8; cows, \$3.50 to \$5.25; heifers, \$3.40 to \$6; bulls, \$4 to \$5.25; calves, \$3 to \$9; stockers and feeders, \$3.75 to \$5.40.

Hogs.—Choice heavy, \$8.50 to \$8.60; butchers', \$8.50 to \$8.55; light mixed, \$8.30 to \$8.35; choice light, \$8.35 to \$8.45; packing, \$8.45 to \$8.50; pigs, \$7.60 to \$8; bulk of sales, \$8.35 to \$8.50.

Sheep and Lambs.—Sheep, \$5 to \$6.50; lambs, \$7.25 to \$8.75; yearlings, \$6.75 to \$8.40.

Buffalo.

Cattle.—Prime steers, \$6.25 to \$7.50. Veals.—\$6 to \$11.

Hogs.—Heavy, mixed and Yorkers, \$8.85 to \$8.90; pigs, \$8.80 to \$8.90; roughs, \$8 to \$8.25; dairies, \$8.80 to \$8.90.

Sheep and Lambs.—Lambs, \$5.25 to \$6; yearlings, \$7.50 to \$8; wethers, \$6.75 to \$6.85; ewes, \$5.75 to \$6.25; sheep, mixed, \$3.50 to \$6.50.

British Cattle Markets.

London and Liverpool cables quote live cattle (American) at 13 1/2c. to 14 1/2c. dressed weight; refrigerator beef, 11c. per pound.

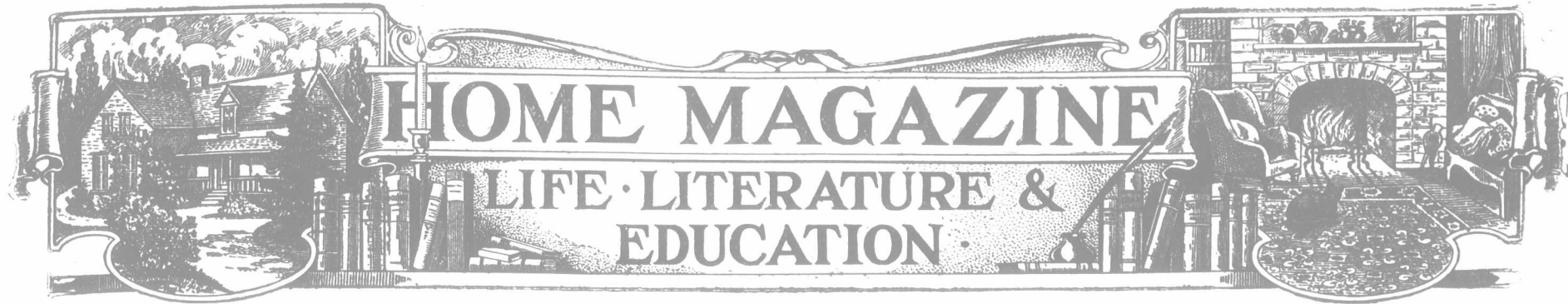
TRIAL BANK CANADA
 CHARTERED 1875
 Authorized, \$10,000,000.00
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 Reserve, 5,000,000.00
SAVINGS DEPARTMENT
 Has an account. Interest at best current rate from the Bank of Montreal.
 Sale notes discounted. Available throughout the Dominion.

... makes of creamery have...
 ... 24c. to 24 1/2c. per lb., and...
 ... had a range of 25c...
 ... lower grades being, if...
 ... than formerly. Dairy...
 ... as cheap as previously...
 ... very strong. Prices...
 ... advancing on account of...
 ... England. Quebec cheese...
 ... less than 11c. to 12c...
 ... less than 12 1/2c. to 12 3/4c...
 ... market for oats experienced...
 ... No. 2 Canadian...
 ... in car lots, store...
 ... per bushel; No. 2 oats...
 ... No. 2 white Ontario...
 ... 3, 43c. to 43 1/2c.; No...
 ... No. 2 barley, 59c. to...
 ... y, 58 1/2c.; No. 4, 56c...
 ... 54 1/2c...
 ... market for flour is practi...
 ... being fairly active, at...
 ... in bags, for Manitoba...
 ... for seconds, and \$5.10...
 ... Ontario flour is...
 ... patents, and \$5.10 to...
 ... rollers...
 ... bran is still selling at...
 ... \$23 per ton. Oat...
 ... \$20 to \$23, and mid...
 ... \$24 per ton, pure...
 ... \$31 to \$33, and...
 ... to \$29. Gluten meal...
 ... to \$32, and oil cake...
 ... is unchanged...
 ... are now commencing...
 ... into farmers' hands...
 ... g fairly good. They...
 ... Timothy seed at \$4.75...
 ... f. o. b., Montreal...
 ... at \$18 to \$20 per...
 ... at \$14 to \$17...
 ... amount of red clover...
 ... in from farmers...
 ... advanced slightly...
 ... 1/2c. per lb. for rough...
 ... refined. Beef hides are...
 ... c, and 12c. per lb...
 ... 14c., sheep skins \$1...
 ... hides \$1.75 to \$2.25

Pago.
 4.75 to \$8; cows...
 \$3.40 to \$6; bulls...
 \$3 to \$9; stockers...
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 \$8.50 to \$8.60...
 \$8.55; light mixed...
 \$8.35 to...
 \$45 to \$8.50; pigs...
 of sales, \$8.35 to...
 Sheep, \$5 to \$6.50...
 75; yearlings, \$6.75

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 \$6.25 to \$7.50...
 and Yorkers, \$8.85...
 \$8.90; roughs...
 \$8.80 to \$8.90...
 Lambs, \$5.25 to \$9...
 wethers, \$6.75 to...
 \$6.25; sheep, mixed

e Markets.
 of cables quote live...
 at 13 1/2c. to 14c...
 rator beef, 11c. per



The significance of the British elections is more than appears upon the surface. Never before was a contest watched with such intelligent interest by the people of Canada. A deep feeling was abroad that what concerned England, Ireland and Scotland concerned Canada in a sense never before so generally and definitely realized. It meant more than a patriotic interest. To a considerable extent the line of cleavage in sympathy with the contestants may have followed the stereotyped political divisions, but it widened and ramified. Partisans may interpret the result as it bears upon the status of the House of Lords, or Tariff Reform, as the Protection movement is called, or the division lists over this or that issue when the House meets, but Canadians and the people of countries foreign to Great Britain waited for the outcome because of the broad, human interests involved—interest of universal concern. The contest was precipitated by the rejection by the House of Lords of the Budget, with its financial provision for carrying on the business of the nation, heretofore the unwritten prerogative of the House of Commons. For naval purposes, old-age pensions, a national system of labor exchanges now inaugurated, and other proposals of social and economic reform, more money was required, and, instead of collecting this by means of a protective tariff, Hon. Lloyd-George, the Welsh Chancellor of the Exchequer, proposed adhering to Free Trade, but widening the basis of taxation so as to levy more upon those best able to pay, the wealthy and the vast estates in the hands of the few, applying the principle of taxing the unearned increment, so that these often unused domains would contribute a fairer share of taxation. Against this the Lords revolted, claiming that the proposal was so radical that the people should pronounce upon it. One of the revelations of the campaign was the fact that 282 Peers, who threw out the measure and had strangled other reformatory bills relating to education, land tenure and liquor licenses, own 10,376,995 acres of the land in Great Britain and Ireland, or an average of over 36,700 acres each, much of it untilled and inaccessible to the people who crowd the cities or go to other lands.

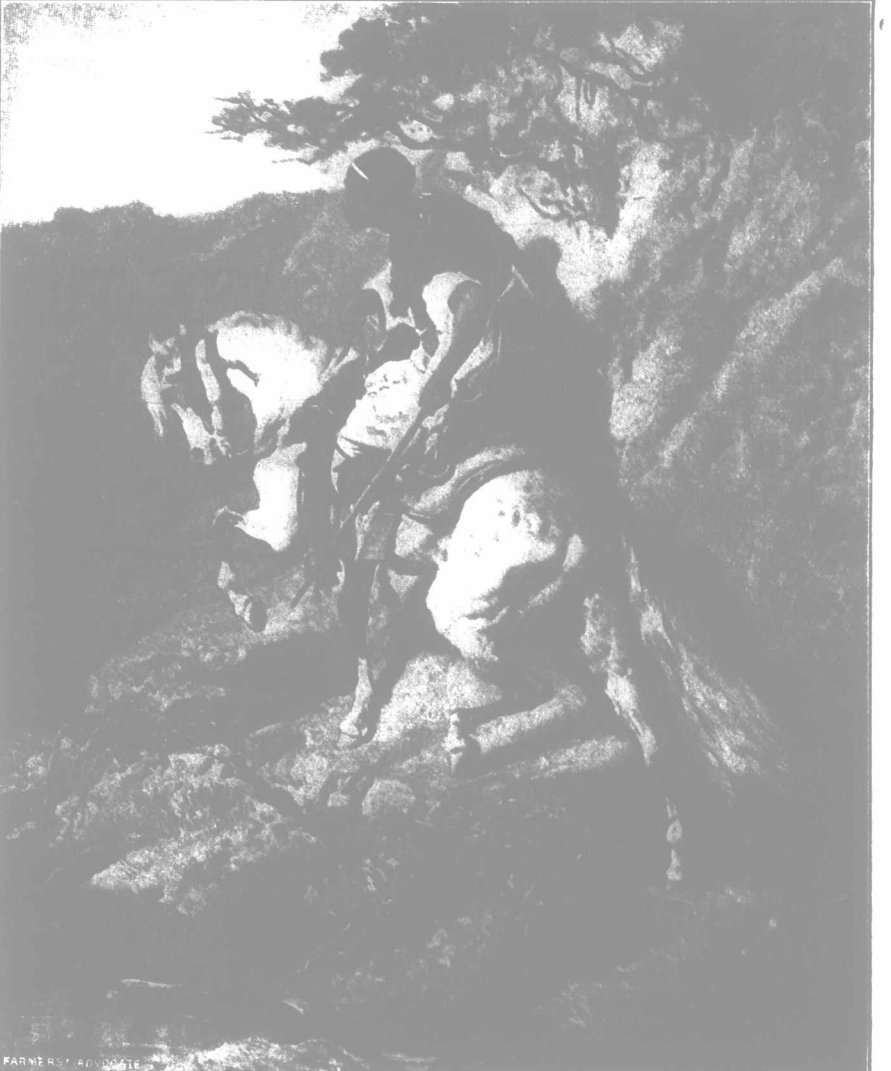
20 Dukes own.....	3,584,295 acres
22 Marquises.....	1,143,626 acres
116 Earls	3,456,529 acres
20 Viscounts	299,924 acres
104 Barons	1,892,621 acres

The largest land-owner is the Duke of Sutherland, with 1,358,600 acres, who threatened his employees and retainers with a reduction of wages or pensions if the Bill were sustained. Some peers conceded the wisdom and fairness of the new proposals, but the bulk of them went solidly in opposition, and in the middle and southern counties of England exerted a powerful influence upon the voting. In the great manufacturing centers northward, in Scotland, Wales and Ireland, the people were less amenable to pressure, and stood more resolutely with the Government on such issues as the Budget, Free Trade, Reform of the House of Lords, and Curtailment of the Liquor Traffic, in which many of the peers are also directly or indirectly interested, one of them, Lord Ineagh, for instance, owning over one million brewery shares. The inference is drawn from the results, however, that, as a factor in politics, beer

is losing its power. There were four parties before the people, and, with three Scottish seats to fill, the results were: Liberals (Government), 274; the Unionists (Conservatives), 270; Nationalists (Irish Home Rulers), 82; and the Independent Labor men, 40. On nearly all questions the two latter groups vote with the Government, so that Premier Asquith has behind him a majority of about 125. The Nationalists are less certain in their affiliations with the Government than the Labor Party. One of the most important facts disclosed is that the Independent Labor Party has a stronger voting force in the new than in the old House. Their power as an independent factor is growing. The toilers are thinking for themselves, and their voice must be heard and heeded. Statesmen discern this new power in relation to legislation, and politicians will do

paper editors in the intense interest taken by Canadians in the recent British elections. In town and country, by every fireside, the progress of the campaign was closely followed, and the reports of it were the first to be scanned on the arrival of the daily papers. Wide-awake journals did well to send some of their most capable editors across the Atlantic to record the events of the campaign, its issues, characteristics, and speech-making, with sketches of the leading participants. A great deal of the platform work was of a very high order, and was an education to this country on British public questions. This shows clearly that papers can educate their constituency of readers to something better than murders, suicides, scandals, and prize-fights.

A somewhat unique instance of



Kabyl.

(From a painting by Schreyer, 1828—.)

well to wake up to the fact, and prepare to interpret aright the mind of the masses. This great British election was not merely a Free Trade, Tariff Reform or Budget battle. It was not an isolated skirmish, but part of an irrepressible conflict going on all over Europe, and elsewhere, between privilege and democracy. It is not a class war, but a breaking-up of class distinctions, and the wane of hereditary feudal powers. The conflict is world-wide, and the people will win out, because justice and education, and peace, and all the elemental principles of Christianity, are on their side.

There is a good lesson for news-

school-development has grown into being in the Village of Flesherton, Grey Co., Ont. Some time ago, a class for Continuation work was formed in the public school of the village. Before long, students from the three adjoining rural-school sections began to attend, and it was found necessary to engage an assistant teacher, and, subsequently, the county council, at the request of the ratepayers, constituted the school as a county school, the greater part of the Township of Artemesia being formed into a district for its support. The course will provide not only for the ordinary academic course of secondary education, but also for a liberal technical education in agricul-

ture, manual training and domestic science. British-German competition and comparison has broken out in a new direction. Dr. Saleeby stated that Germany is producing two babies to every one born in England, and is looking after them better when she has them, as their infant mortality is less. E. V. de Voss, a prominent worker in the field of prevention of infant mortality in both England and Germany, speaking from observation and by the official reports, corrects Saleeby. She says that the birthrate is higher in Germany, but far from double, and that the rate of infant mortality is as 120 to 150 per 1,000, in favor of England.

The prospectus of a novel bank has been announced. It is to be called the Radium Bank of Great Britain. Its capital is a quarter million dollars, and its purpose is to rent radium to medical and scientific men.

In comparisons of the cost of living Now and Then, opinion greatly varies. One laboring man, who kept accounts, saved \$185 in the year 1893, out of \$12 a week. To live as well now as he did then, his family, consisting only of himself and his wife, would need every cent of his present \$15 a week. In other words, his cost of living has come within ten per cent. of being doubled in that period. Whether his case is typical or exceptional, it is certainly easier to make a list of the necessities of life that have greatly or considerably increased in price than of those that have remained stationary or decreased within a decade.

But in all this talk of advancing cost, may it not be overlooked that decreasing value of money gives an appearance of increasing prices of commodities purchased. There was a time when a shilling a day was considered good wages for a laboring man. If the daily wage of unskilled labor were ten dollars a day, but four twenty dollars a cwt, "times" would be neither better nor worse than they are now. A day's work has ever been the standard of value. On the other hand, some of those who look far ahead see the fortune of the day-laborer improving. Thomas Edison is one of these. He ventures to predict that in 200 years the ordinary wage-earner will live as well as a man does now whose income is \$200,000 a year. What will bring about so hardly conceivable a change? His answer is automatic machinery and scientific agriculture.

If the present rate of improvement of factory processes and methods is maintained, it will not be long, he thinks, before manual labor in factories will be unnecessary. Operatives will simply have to see that the automatic machinery is doing its work properly. On the farm, sun-engines, and storage batteries, charged by windmills, will do the heavy work. The tremendous power of tide and wave on the seashore is enough to do the land-work, if it were only harnessed. In Arizona, a thirty-horse-power sun-engine is now said to be operated by focussing the rays on the water, and thereby driving a steam turbine.

Have you ever thought of how much water is evaporated per day by an acre of forest? These tons have to be lifted from the earth 100 feet to the tops of the trees. Whence comes the necessary energy? The school-

boy can tell—whether he understands it or not—that the work that green plants do is simply the effect of so much utilized sun-energy. In view of this fact, the contention does not seem extravagant that there is sufficient sun-power shed over an acre of land to do all the work required in its cultivation, if some inventor will devise the means of seizing and utilizing it.

"Europe's Optical Illusion" is the title of a small book of 126 pages that is at present exciting a great deal of attention. Whether his readers agree with the author or not, they have to admit that his questions are pertinent, and his answers are pithy.

"If we could conquer Germany tomorrow, and reduce her nationality to dust, would the ordinary British subject be a whit the better for it?"

"If Germany could conquer us as completely, would any ordinary German subject be the better for it?"

"Is it true that national wealth and prosperity go with political power?"

"If the traders of the little nations—Switzerland, Holland, Belgium, etc.—can snap their fingers at the great war lords, why do British traders need dreadnoughts?"

"Do we dread a Russian because he is a citizen of one of the greatest empires of history, and despise a Norwegian because he is a citizen of one of the smallest states of Europe?"

"Why are Belgian securities higher on the stock market than German securities, and why do the Rothschilds lend more readily in Switzerland than in Germany?"

These and many other queries are raised for the debater who postulates national security on military and naval force.

There is a town in Illinois called Leclaire. In eighteen years it has had no arrests. It has no loafers, no unemployed, no policemen, no poor. It has several manufactories, all belonging to one man, Mr. N. O. Nelson, and there are farms on its borders on which part of the population find employment. Mr. Nelson considers Leclaire the triumph of his life in social experiments, and in writing of it in the New York Independent, attributes its contentment and its freedom from crime almost solely to three conditions: (1) That the boys are employed at the formative period of life, a time usually spent, to a great extent, in idleness; (2) that innocent amusement is supplied for the evenings; (3) that the surroundings are made as beautiful as possible, the buildings well lighted and sanitary, vines, trees and flowers planted liberally everywhere.

"Every boy," he says, "has a job waiting for him," an eight-hour day when he is fourteen, a nine-hour day at sixteen; but care is taken that, though kept busy, lads of such tender years are not overworked. In the evenings there are band concerts by the lake, bowling, weekly baseball games, etc., and so the wholesome craving of human nature for recreation is met.

"In my own judgment and my taste," writes Mr. Nelson, "outdoor work is preferable to indoor; the field is better than the factory." And again: "My experience in employing men and boys in farming, as well as manufacturing, teaches that when equally accessible and available, the commonest preference is for outdoor work; nevertheless, as might be expected in such a place as Leclaire, the majority drift into the factories. It is easier to do so, since independent farming takes capital, skill, management and responsibility."

At eighteen or twenty, then, the boy has learned his trade, brass, wood, marble, machines, and house-building—or has made a fair start at the business of farming. A few drift away from Leclaire, but the majority stay, and of those who leave, some come back. They find that conditions are less pleasant elsewhere.

There are problems in dealing with youth everywhere, and the history of Leclaire may convey a suggestion.

Hope's Quiet Hour.

The Church in Thy House.

Paul, a prisoner of Jesus Christ, and Timothy our brother, unto Philemon our dearly beloved . . . and to the church in thy house.—Philem., 1, 2.

St. Paul often speaks in his epistles of "the church that is in the house" of various converts. In the Epistle to the Romans he greets "the church that is in the house" of Priscilla and Aquila and, in the first letter to the Corinthians, greetings are sent from "the church that is in the house" of these same loyal friends. Evidently, wherever Aquila and Priscilla establish a home, there it becomes a "church." The Apostle also sends salutations to "the church which is in the house" of Nymphas (Col. iv.: 15) and—as noted above—to the church in the house of Philemon.

It is a very true saying: "Every home should be a church, and every church should be a home." The church is the House of our Father, and there the rich and poor, the cultured and the ignorant, meet as equals. There they gather round their Father's table, eating of the same loaf and drinking of the same cup. The church should be a place where we feel "at home" with rich and poor, and we also feel at home with the Father, who receives us as His dear children. It should be—though often it is not—a place of warmest fellowship. But let us look to-day at the other half of the saying: "Every home should be a church."

"There's no place like home"—countless hearts echo the familiar words. When people are far away from home, it usually seems the most sacred spot on earth, but is it always quite so perfect when we are in it? Is the home—a church in miniature—a place where God is felt to be very near, a place where evil is crowded out by good? Sometimes it seems more like a place where the inhabitants feel quite at liberty to say rude things to one another, putting on their second-best manners with their second-best clothes.

If you are making your home as holy and peaceful as a church should be, then you are doing missionary work of splendid value. The real home of a Christian family in a heathen country is a wonder to all around, and is so attractive and inspiring that copies of the beautiful home-like are quick to appear. It is much the same everywhere, for we are all given to copy anything we admire.

"Go make thy garden as fair as thou canst,

Thou workest never alone;
Perchance he whose plot is next to thine,

Will see it and mend his own."

Would you like to know how it happened (does anything ever "happen?") I wonder, that I chose this subject for our chat to-day? Well, it was just this very thing I am talking about. I "dropped in" to spend an hour with a neighbor, and was charmed with the dainty freshness of her room. The muslin curtains and the white quilt looked as though the spring cleaning were just over—and it is not February yet. My friend did not expect me to see her room, for I just "happened" upstairs to look at a new waist she had been making. I spent a good part of this morning in making my room look tidy and fresh—it gets shockingly littered with books and papers sometimes. That was the result of a good example, you see. Now, I am trying to open your eyes to the fact that the inspiration of a lovely home does more good than the home-maker ever can know in this world. My friend is not likely to find out (unless I tell her) that her dainty room not only roused me to a sense of shame at my untidiness, but was an inspiration to thousands of women in Canada. You see, I know you won't wish to be left behind—and how many other people will be inspired by your homes, and so on, in ever-widening circles, through the centuries? Why, it makes one quite dizzy to try to calculate the power for good of that one nicely kept bedroom!

And, while we are on the subject of bedrooms, here is a beautiful message to

write out and leave on the table of a guest who—as Rebecca says—"brings a nightgown."

"Sleep sweet within this quiet room,
O thou! whoe'er thou art,
And let no mourner yesterday
Disturb thy peaceful heart.
Nor let to-morrow scare thy rest
With dreams of coming ill;
Thy Maker is thy changeless Friend,
His Love surrounds thee still.
Forget thyself and all the world,
Put out each feverish light,—
The stars are watching overhead—
Sleep sweet! Good night! Good night!"

If your home is to be a "church," then your guests, as well as your children, must be able to see clearly that Jesus is not only a Guest, but a Member of the family—that He has come to stay, and is given a royal welcome. Then family prayer will not be forgotten or neglected, and the conversation will not only be pleasant, but will enrich all those who join in it. Love will be the key-note of the home-melody. It has been said that "the old hunger for love more than bread," but that might be said for all of us. Little children, growing boys and girls, the wife and husband, the "old maid"—who is perhaps more heart-hungry than most people—the mother, who gives so much love, and is often treated with very little consideration in her own home, and everybody else. And it is not enough to love silently. If the home is to be the holy ground which God means it to be, we must have a hearty, responsive service there.

"Tis a little thing to say, 'You are kind;
I love you, my dear!' each night;
But it sends a thrill through the heart,
I find—
For Love is tender, as Love is blind—
As we climb life's rugged height.
We starve each other for Love's caress,
We take, but we do not give;
It seems so easy some soul to bless,
But we dole the Love grudgingly, less
and less,
Till 'tis bitter and hard to live."

I am not trying to tell you anything new. You know all this as well as I do. The question for each of us is, "Are we living poor, pinched lives for lack of Love?" Then let us wake up and use the treasure which God has poured so freely into our hands. Love is the only thing which can make any home happy, and, where Love is, the home can hardly fail to be sacred, too. Yesterday a lady was lamenting her sorrowful condition because a dearly-loved husband had been lifted up to higher service in Paradise. She stood with one arm round a bright boy, and the other round an equally sunny daughter. Her sweet-faced mother was also there—needing and receiving daily tenderness—and the husband was only out of sight. She still loves him, and he certainly loves her at least as dearly as before. Her heart is full of love—love given and received—and I congratulated her on her joy, instead of pitying her for her sorrow. When husband and wife see each other daily, and yet feel a wall of ice between them, then they are really separated. But death is far too weak to separate those who really love.

If you want your home to be a church, then keep things peaceful there. Don't indulge in such habits as nagging, fault-finding, snappishness, gloomy looks, and weary tones. Of course, these will creep in, if you don't do your level best to secure proper rest and recreation for yourself. No one wants you to make martyr of yourself unnecessarily, doing all the jobs which other people ought to do, and looking miserable and pale in consequence. Such self-sacrifice spoils the rest of the family, and ruins their happiness as well as their morals. "Bear ye one another's burdens," is carefully balanced by St. Paul's sensible addition, "for every man shall bear his own burden."—Gal. vi.: 2, 5. He did not wish over-indulgent wives and mothers to bear all the burdens they could find in their homes, or he would not have placed those maxims side by side in one letter.

A business man prided himself on never having taken a holiday for many years. One day he sat down and cried, instead of going to his office. Then he took a holiday, when it was too late to get the

full good of it! Don't wait until you are over-tired before you make your home a house of rest. Love, rest, cheerfulness, dainty freshness in dress, in rooms and table, friendliness to guests, and considerate courtesy to all, the underlying remembrance that Christ Himself is there—if you have all these, in ever-growing measure, then, not only an Apostle, but the Lord of the Apostles, salutes "the church in thy house."

DORA FARNCOMB.

Editor "Hope's Quiet Hour":

I am an old Englishman; I was eighty years old last April. My wife died a year ago last June, and, since that, I stay with my children. I have enjoyed very much some pieces in Hope's Quiet Hour, and in the Ingle Nook, and I think it would be to every farmer's interest to take it. My eyes are weak, and sometimes they go bloodshot so that I cannot read for an hour or more. I am doing this without glasses. It has been my practice for a number of years to read a chapter or more in the Bible every morning. I was sitting in this room some months ago and took the book and tried to read, and my eyes went bloodshot, so I shut my eyes, and my daughter came into the room and I told her what was the matter. She said, "I suppose you were asking the Lord to continue your sight." I said, "No, I did not put it that way, but I did say, 'Blessed Saviour, if I am never to read these precious, these soul-saving and comforting words of Thine, give me patience to bear the loss.'" My daughter went on about her work, and I kept my eyes closed a few minutes, and then opened them and read Paul's letter to the Colossians right through without any trouble. Then my soul was filled with grateful praise for the blessing that I enjoyed. Now, if you think that anything that I have said would be of use or comfort to anyone, you may make any use you like of it. I cannot think that there is anything that Hope's Quiet Hour could use. Though I am so old, I have excellent health, very seldom an ache or pain.

EBENEZER TRACY,
Spring Bay P. O., Manitoulin.

Thank you very much for your splendid letter, Mr. Tracy, it does not need any praise from me, I should like to shake hands with you.
HOPE.

The Beaver Circle.

[All children in second 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.]

Things We See.

A LETTER TO THE BOYS AND GIRLS.

Perhaps often, these winter days, when eating an apple, you come upon one which has a worm-hole in it. The worm is not there, but the trace of his depredations appears at the core, and in the channel he has bored for himself out to the side of the apple. Possibly, you do not know anything more about it than that a worm has been there, and that a few hundred brothers of this same worm caused just so many of your apples to fall off last autumn. Now, I am not going to tell you how these worms might have been prevented. That has often been done, and will probably be done again in the proper season, by our Orchard Editor, who is a B. S. A. (Bachelor of the Science of Agriculture), and who knows all sorts of remedies and preventives of such things. But I just want to tell you, boys and girls, a few things about this apple-worm which may interest you, and help you to know that there is something to learn about even the commonest and smallest of the things one may see about a farm.

This little worm which was in your apple has probably gone out upon the trunk of the tree upon which the apple grew, or in some crevice of your cellar or apple-barrel. If you go out across the snow to an apple-tree and scrape off some bark,

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RA FARNCOMB.

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scales, you may possibly find him or one of his relatives snugly wrapped up in a silken coat (or cocoon), in the very spot in which, if undisturbed by birds, or other enemies, he will remain until late next spring. If ever you happen to hear a downy woodpecker tapping away at one of your apple-trees, don't throw something at him to frighten him away. You may be sure he is just looking for some of these little dormant larvæ which, if undisturbed, are likely to do your apple-trees a great deal of harm. Other birds which also are enemies of this orchard pest, as given in Bulletin 142, of Cornell University Agricultural Station are the nuthatch, bluebird, crow, blackbird, kingbird, swallow, sparrow, wren, chickadee, and jay.

If, however, the larvæ (as these little worms are called) are allowed to rest in peace, they will sleep away until about the end of May. During this long term of imprisonment, however—possibly from the beginning of October—a wonderful change has been taking place in the worm. From a little, soft, whitish creature, it has been gradually changed, until at last it has become transformed into a chrysalis, or pupa, a sort of mummified creature, which eats nothing, and is like a hard, tightly-rolled-up thing upon which, in its later stages, rudimentary wings and organs may be seen. Some time in May, or early in June, this pupa emerges, full-fledged, as a dark gray moth (the Codling moth is its name), which has just a little copper-colored curve on its front wings.

Very soon the females begin to lay their eggs on the young apples, the eggs looking like little flat, oval scales. A single moth has been known to lay as many as 85 eggs, and as she only lays one egg at a time, and flies about a good deal, she usually manages to injure a great many apples. These eggs, of course, hatch, and the new larvæ crawl into the calyx cups and down to the core of the young apple. Here they grow to their full size in about three weeks, then eat their way out of the side of the apple, and make more cocoons under the bark scales. In the warm weather, these larvæ develop very quickly. In fact, they complete their transformations in about two or three weeks, and emerge as full-fledged moths, ready to lay a second "batch" of eggs on the apples which are left. One of the larvæ from this last laying it was which guttered your winter apple through, and which is now possibly pupating somewhere awaiting the spring. This is a part of the story of the Codling moth. Think of it when you come upon your next worm-eaten apple, and remember, do not frighten away the dear little birds, those vigilant protectors of your fruit trees. PUCK.

The Girl Who Smiles.

The wind was east and the chimney smoked,
And the old brown house stood dreary,
For nobody smiled and nobody joked,
The young folks grumbled, and the old folks croaked—
They had come home chilled and weary.
Then opened the door and a girl came in;
Oh, she was homely—very;
Her nose was pug, and her cheek was thin,
There wasn't a dimple from brow to chin,
But her smile was bright and cheery.
She spoke not a word of the cold or damp,
Nor yet of the gloom about her;
But she mended the fire, and lighted the lamp,
And she put on the place a different stamp
From that it had without her.
They forgot that the house was a dull old place,
And smoky from base to rafters,
And gloom departed from every face
As they felt the charm of her mirthful grace,
And the cheer of her happy laughter.
Oh, give me the girl that will smile and sing,
And make all glad together!
To be plain or fair is a lesser thing;
But a kind, unselfish heart can bring
Good cheer in the darkest weather.
—Woman's Life.

Our Junior Beavers.
An Old Song.

"There's No Place Like Home!"
When people ask me where I live,
I hate to have to go and give
A name like Smithville, plain.
I'd rather say—"Sir, if you please,
My home is in the Hebrides,"
Or, "High up in the Pyrenees,"
Or, "At Gibraltar, Spain."

"Constantinople," too, sounds fine,
And "Drachenfels-upon-the-Rhine,"
And "Madagascar," too;
And "Yokohama" sounds so great,
And "Hindustan" is just first-rate;
I rather like even "Bering Strait,"
And "Cuzco" in Peru.

And yet, I would not be at night,
Alone upon the "Isle of Wight,"
Or on the "Zuyder Zee,"
At "Nova Zembla," in a gale,
I know that I should just turn pale;
For fear of earthquakes, I should quail
In "sunny Italy."

A place that sounds nice on the map,
May have a little too much snap
To keep within its wall;
And so, though many names I see,
That sound as stylish as can be,
There's no place quite so good for me,
As Smithville, after all!
—Blanche Elizabeth Wade, in St. Nicholas.

"Found Out!"

Dear Puck,—Please excuse me for my delay in acknowledging the receipt of the beautiful book sent me for a prize for my essay in the "Beaver Circle" competition.

It arrived on Christmas eve, and I did not see it until I found it hanging from the Christmas tree on Christmas morning.

So, dear Puck, I have found you out at last. You are dear old Santa Claus. Of course, if you wish to keep it a secret from the other Beavers, I won't even whisper it to my cousin, the broad-leaved maple.

But you and I know, don't we, Santa? I enjoyed reading all of the compositions very much, and, of course, we feel rather proud to think that my sister and I were both prizewinners.

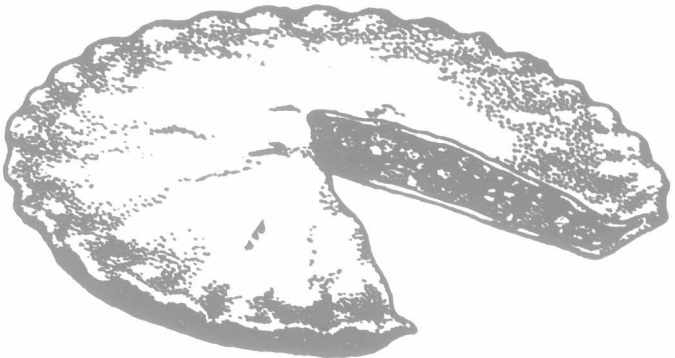
It is very stormy to-night, but I suppose this weather just suits you and your reindeer.

Thanking you again, dear Santa, I am your busy Beaver.
VERNON C. AUGUSTINE.
Aughrim, Ont.

Dear Puck and Beavers,—This is my first letter to the Circle. My home is at Amherst Point, N. S. I live about four miles from the town of Amherst. I go to school every day, and am in Grade 3. My father takes "The Farmer's Advocate"; we like it very much. I became so interested in the letters of this Circle that I thought I would write one, too. I am eight years old. Hoping I will see my letter in "The Farmer's Advocate."
EDITH FORREST.
Amherst Point, N. S.

Dear Puck and Beavers,—I always read the Beaver Circle; I am in the Junior Third book at school; I have a dog and a cat for pets, and my sister has a dog. My sister's dog is brown and white. We had a big storm, and the ice broke the trees down. My grandpa has four horses and twenty cattle. I live in a town; my father keeps a butcher shop. My grandma keeps a lot of hens. I help my grandma pick apples. My grandpa's farm is a hundred and fifty acres.
NELLIE SHEDDING (age 9).
Hillsburgh, Ont.

Dear Puck,—This is my first letter to the Beaver Circle. My papa takes "The Farmer's Advocate." I am in the Junior letters in the Beaver Circle first. I live on a farm near Freilton. I am in the Second class now. I think you are a man, and I think you have a very funny name. Last winter, when the ground was covered with snow, many small birds would come down on a tree near our door. We fed them, and at last they got so tame they would come and eat out of our



Twenty-five years ago it was difficult to sell spring wheat flour for pastry at any price.

People didn't want it—they were using soft, winter wheat flour, and saw no reason for changing.

But hard wheat flour was persistently pushed. The women tried it and succeeded with it,—to-day hard wheat flour is the favorite for Pastry as well as for Bread.

Ogilvie's Royal Household

is hard wheat flour at its best—milled by modern methods, retaining all of the good of the wheat. It is without an equal for every kind of baking in which flour is used.



Ogilvie Flour Mills Co., Limited, Montreal.

Hamilton Incubator Hatches Every Fertile Egg

You can succeed with the first hatch in a Hamilton Incubator. Our directions are simple and accurate. You cannot go wrong. And the Hamilton will hatch every fertile egg. It does so because its systems of ventilating, heating and regulating are absolutely perfect.



Our Free Booklet

will tell you many surprising things about incubator construction. After reading it you will understand why chicks die in the shell in many incubators—why they stay alive in the Hamilton—why all fertile eggs placed in the Hamilton hatch big, robust, lively, perfectly-formed chicks—the kind that you will be proud to exhibit to your neighbors. You should have a copy of the free booklet and study it carefully. Many experienced poultrymen have told us they were mighty glad they asked for a copy. Send for your copy to-day.

Sell Incubators For Us.

You can earn a tidy sum in commissions by selling Hamilton Incubators and Brooders. Write and ask for particulars. We've a good proposition to make you.

The Hamilton Incubator Co., Ltd., HAMILTON, ONTARIO.

The fence that's strong all through

Every wire in our heavy farm fence is No. 9 hard steel, with uniform strength and lasting qualities in each strand. A fence with any small or soft wire in it is short lived. A chain is no stronger than the weakest link. Then PEERLESS Fence made from English wire is rust-proof—that withstands more than double the endurance of other makes.

Peerless the fence that saves expense

The PEERLESS does not cost anything to keep—there are no repair bills—it is not affected by changes of temperature. The horizontal wires being crimped makes ample provision for all contraction and expansion. PEERLESS Fence once well stretched, is always tight—no shock affects it. We are manufacturers of high grade farm, poultry, ornamental fencing and gates. Write for Free Book, a sample of PEERLESS Fence and a simple method of testing any make of fence.

THE BANWELL ROXIE WIRE FENCE CO., LTD., DEPT. B, HAMILTON, ONT., WHARF, MAR.

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

A Revelation in Tea Goodness



is a delicious and fragrant blend of the finest Ceylon Tea. Get a package from your grocer and enjoy its excellent qualities.

The Economy of
Duchess
Children's Dresses

A mother never bestowed more care and attention to details, in making garments for girls, than will be found in "Duchess" Brand Children's Dresses.

They are dainty and stylish—beautifully made throughout—in Tweed, Serge, Cashmere and other fine fabrics—and they cost no more than the bare materials would cost in any reliable store. Every garment guaranteed by maker and dealer.

Save yourself so much home sewing. Ask your dealer to show you the "Duchess" line. If he does not handle them, write

11

DUNLAP MANUFACTURING CO. MONTREAL

In the ordinary cement or wood silo there is usually formed about the wall a rim of ensilage of considerable width, which is frozen and decayed, and therefore unfit for use. This waste is reduced to practically nothing and the ensilage is kept sweet and clean for the whole feeding season in the

Waterous Steel Silos

These silos are composed of heavy steel plates firmly rivetted together to be tight and absolutely waterproof and when set on a cement foundation are self-supporting. They are shipped out complete with plates rolled and punched and rivets for same, all ready for assembling. The erection can be done in any weather and is comparatively easy. Four or five men should do the work without trouble in about three days.

The initial cost of the steel silo may at first appear to be somewhat higher than the ordinary cement silo, but when you consider the fact that it takes at least three times as long to erect a cement silo, that it is impossible to work when the frost will affect the setting of the cement, and add to this the cost and time taken for hauling gravel—often a considerable item—you will see that the final costs are practically identical, and if anything in favor of the steel silo.

They can be added to at any time, and if necessary, can be dismantled and re-erected at little cost. Write and let us tell you all about them.

20

Waterous Engine Works Co., Ltd., Brantford, Can.

CALDWELL'S MEAL

Non-medicated.

For Cattle, Horses, Sheep and Hogs.

that a straight diet of cereals lacks to make a balanced ration. Manufactured only by

A. C. CALDWELL, EAST TORONTO, ONT.

PRICE, FREIGHT PREPAID, \$34.00 PER TON.

hands. I hope they will come this winter again.

For my pets, I have two pretty kittens, Bruce and Etta.

If I see this letter in print, I may write again.

Will some of the Beavers please correspond with me?

MAGGIE GAVIN (age 9).
Freelton, Ont.

HOW GOVERNOR SEYMOUR FED THE BIRDS IN WINTER.

Governor Seymour of New York was very fond of birds, and spent much of his time in studying works on ornithology. In a huge cherry tree before his door he placed a netting of wire, to which was fastened a rich store of fat suet, and a large number of birds came during the winter for the suet every day, adding much to the happiness of Governor Seymour's life.—Geo. T. Angell.



523 Misses' Box Platted Waist, 14 and 16 years.

When ordering, give age, if for Misses' pattern, waist and bust measure if for ladies'.

Price of above patterns is 10 cents for each number. Address: "Fashion Department," "The Farmer's Advocate," London, Ont.

The "Farmer's Advocate" Fashions.



6517 Girl's Costume, 6 to 12 years.



DESIGN BY MAY MANTON.
6516 Blouse or Guimpe.
Embroidery Pattern 431.
6514 Seven Gored Skirt.

Our English Letter.

III.

I am writing on almost the very eve of the election. By Monday, the 17th of January, at least 169 seats will have been formally contested, and each day afterwards until the end of the month, the fate of one political party or the other in their several localities will have been decided, and the statistical outcome known all the wide-world over. It will remain for the future to interpret results, which cannot fail to be of the very deepest import, not to the Motherland alone, nor only to Great Britain over seas, but to those other countries which are almost as breathlessly awaiting the issues of the great conflict as we are ourselves.

In my quiet nook, between the wide expanse of sea in front and the broad moorlands of grand old Devonshire behind, echoes only reach me of the intense excitement which prevails everywhere, and I have to depend for information upon my daily newspapers, each viewing the coming crisis through different colored glasses. The confusion of mind from which I individually suffer after trying to follow these varying interpretations of the same subject, cannot, I am well aware, make the slightest difference to anyone but myself, but how far such will o' the wisp sidelights must influence the man who within the next few days will be called upon to make use of the vote entrusted to him, is a far more serious consideration. In rural England a perfectly independent vote is the exception rather than the rule. "Hodge" thinks he is voicing his own opinions, but he is either attracted by a catchword, the significance of which he does not attempt to understand; or, without disguise, votes according to the political views of his landlord or employer. "Squire says so, and I believe 'un, and so I don't bother my head about it one way or t' other."

It may seem somewhat anomalous that women who are denied the vote are yet recognized as important factors in influencing the votes of others, but as in the past, so it is now, the women of each party work nearly as hard as the men in the interest of the candidate whom they hope to see at the head of the poll on election day.

This morning's paper gives the following amusing experiences of a woman electioneer. The item is headed:

THE LIGHTER SIDE OF CANVASSING.

I picked my way across an unspeakably dirty farmyard and peered into the recesses of a dark barn. "Is it the vote, miss?" asked a voice from among the rafters. The gentleman I had come to call on was hanging strings of onions along a beam in a loft, and evidently had no intention of descending for the interview.

He seemed rather deaf.
"Vote for Mr. Jones? Not me!"
And a large onion fell at my feet.



Buying A Piano Made Easy

Perhaps you are deterred from enjoying the delights of a New Scale Williams Piano in your home, by the thought of laying out several hundred dollars in a lump sum.

This is unnecessary. By our unique plan, you gain the piano of your choice by easy payments.

New Scale Williams PIANOS

Another great advantage to those living at a distance from the large cities, is that we ship pianos on approval, guaranteeing the instruments to please or they are returnable at our expense.

Write us for details of these two selling plans—and our beautifully illustrated catalogues of New Scale Williams Pianos and Player Pianos.

THE WILLIAMS PIANO CO. Limited
OSHAWA, ONT.

BRANCH OFFICES:
Winnipeg, Man., 323 Portage, Ave.
Montreal, Que., 733 St. Catherine St. W.
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A Cure for Eczema

THAT NEVER FAILS.



Hundreds of bad cases—afflicted for years—worn out because of loss of rest—unable to resist tearing of flesh—almost incurable, have readily yielded to the wonderful powers of

OUR HOME TREATMENT

Equally effective in all forms of skin and scalp diseases, such as Salt Rheum, Ringworm, etc. Consultation free at office or by letter. When writing describe case fully.

OUR CURE FOR ACNE (Pimples, Blackheads, Fleshworms)

is wondrous in its effect in clearing the face, back and chest of those nasty, sore, disfiguring blotches. Cases that the best physicians in England and Germany pronounced incurable have once more clear, pure complexions. We don't COVER up blemishes, we CURE them. That humiliating disfigurement,

SUPERFLUOUS HAIR

or those ugly Moles, Warts, Red Veins, etc., permanently removed by our method of Electrolysis. Satisfaction assured. Send stamp for our booklet "E," and sample of White Rose Cream.

HISCOIT DERMATOLOGICAL INSTITUTE
61 College St., TORONTO. Estab. 1892

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

Arguments were useless. So were explanations.

At last a very old man slowly descended a ladder out of the darkness; he looked suspiciously at me; then turned away muttering, and observed to another old man he met in the yard, "Females in politics is foolishness."

IMPROVING THE SHINING HOUR.

"I'm all right," said the little shoemaker on whom I paid my next call. "You can put me down 'for.'" He was anxious to help, and on looking over my cards suggested that I could finish the village in an hour, and the baker would then give me a lift to my next point.

A pleasant-looking young man in tweeds was training a spaniel in a lane as I returned from some distant cottages. He was kind enough to tell me where Mr. M. lived, and then asked, "Are you canvassing?"

"Yes; have you a vote?" I said, thinking I would improve the shining hour.

He admitted that he had, and we were soon deep in discussion. I could not feel that I made much impression, however, and he showed a tendency to branch off into golf, dances, and mutual acquaintances we found we had in London. We were sitting amicably on a stile comparing impressions of Nice and Monte Carlo, when a shout from the road made me almost lose my balance.

The baker had pulled up and wanted to know if I was "the young woman who wanted a lift to Finborough?"

My tweed-clad friend and I parted on the most friendly terms, after he had helped me to climb up among the loaves and flour bags.

"I thought you were for Mr. Jones," observed the baker suspiciously, when I was settled by his side.

"So I am."

"Don't look like it. That young spark is the eldest son of Mr. Robinson (the rival candidate)! They live at the big house over there, and he's making a speech to-night at the schoolhouse against Mr. Jones."

I felt somewhat crestfallen, and tried to remember what I said to the charming stranger.

AN OBJECT LESSON WITH OYSTER-SHELLS.

The first name on my list at Finborough was Mr. T.

"James," shouted his wife. "Here's a young person come about the vote!" I had not said a word!

James was an ex-naval man, and immediately plunged into the question of Dreadnoughts. The garden, for the sake of illustration, was the German Ocean, some oyster-shells were the German Navy, while a row of red tiles represented the British warships. It was easy to show that the oyster-shells would sweep away the red tiles in the twinkling of an eye unless the number of red tiles was doubled. He would only vote for the party who were in favor of naval supremacy.

"Drat that man! He's been and gone and upset the garden path again with them nasty shells and stones," said an irate voice as I bade good-bye to the naval expert over the hedge.

NEVER VOTED ON PRINCIPLE.

My next call was at a little house standing in its own garden, with a bright brass knocker on the door, which was approached by a neat, flagged path. Everything was spotlessly clean and tidy; I had been told that I should have some difficulty here, the voter being an old bachelor and a "Brother."

A neat maid in cap and apron opened the door and took in my message that a lady wished to see Mr. S—. "He won't know my name," I said.

Quickly she returned. "Master's compliments; if it's anything to sell he doesn't want it, and if it's the vote he never gives it."

"But—," I began.

"Don't come in, madam," said a querulous voice from inside. "I don't consider it right to cumber the mind with such temporal and worldly matters as votes. Shut the door, Maria!"

I returned to my rooms a sadder and a wiser woman, with a half-formed wish that canvassing could be prohibited by law, provided that both sides would loyally obey the law.

A sentiment to which in calmer moments probably the different factions would alike be quite willing to subscribe. Friends from London, Ontario, have kindly forwarded to me the local papers, giving results of the municipal elections for 1910, and it is pleasant reading indeed to find that one important feature of the campaign was that party politics had cut no figure whatever, that candidates were elected without reference to their political stripe, and wholly upon their own merits. Seeing that the name of Canada appears so frequently in the columns of the English press, that the opinions of her statesmen and the results of their statesmanship are quoted either as warnings or incentives, it is no small thing that it can be recorded of at least one of her larger centers, that the principle of sacrificing the city's interests for party gain has been wholly rejected; never, let us hope, to be again revived. H. A. B.

Current Events

Mr. George H. Gooderham has been re-elected President of the Industrial Exhibition Association.

The first of the Australian destroyers was launched on February 9th, Mrs. Asquith officiating.

It has been announced by Hon. G. P. Graham, in the annual railway budget, that the Hudson's Bay Railway will be begun during the summer.

Mr. Alfred L. Burt, of Toronto University, has been awarded a Rhodes scholarship. He will be remembered by many as the pianist at the Gypsy Smith services in Toronto last May.

Sir Wilfrid Laurier last week outlined, in a speech before the Dominion House, the policy of the Government in regard to the creation of a Canadian navy. It will, he stated, act in co-operation with the navy of the Motherland, but will be under control of the Canadian Parliament.

The Golden Dog (Le Chien D'Or.)

A Canadian Historical Romance.

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CHAPTER L.—Continued.

The crowd for the moment believed that De Pean had been the murderer of Philibert.

"No, not he; it was the other. It was the officer who dismounted—the drunken officer. Who was he? Where is he?" cried the habitant, forcing his way into the presence of Le Gardeur, who was still kneeling by the side of the Bourgeois, and was not seen for a few moments; but quickly he was identified.

"That is he!" cried a dozen voices. "He is looking if he has killed him, by God!"

A number of men rushed upon Le Gardeur, who made no defence, but continued kneeling beside the Re-collet Brother Daniel over the body of the Bourgeois. He was instantly seized by some of the crowd. He held out his hands and bade them take him prisoner or kill him on the spot, if they would, for it was he who had killed the Bourgeois.

Half a dozen swords were instantly drawn as if to take him at his word, when the terrible shrieks of Angeli-



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Advertisements will be inserted under this heading, such as Farm Properties, Help and Situations Wanted, and Pet Stock.

TERMS—Three cents per word each insertion. Each initial counts for one word and figures for two words. Names and addresses are counted. Cash must always accompany the order. No advertisement inserted for less than 50 cents.

BRITISH Columbia Fruit Ranches—For lovely little ranches overlooking Lake Okanagan, at the best possible value, write Walter Stark, the agent, Toronto House, Wallacey, Cheshire, England. Note: Ready for the plow. Easy terms of payment.

FOR SALE—Bitch pups 8 months old—collies. Paul Merritt, Beamsville, Ont.

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

FARM FOR SALE—200 acres in Nichol Township, County of Wellington, lots 8 and 9, con. 11 on main road, 2 1/2 miles west of Elora, 1 1/2 miles from school, post office and mill. 190 acres under first-class state of cultivation. 4 acres hardwood bush. 6 acres ready for breaking. Never-failing spring creek touches corner. No waste land, and well fenced. Bank barn 68 x 90, modern fittings and individual water basins. Water supplied from drilled well by windmill. Pigeon and straw shed 26 x 46. Driving shed 20 x 40. Large stone house, surrounded by good orchard and evergreens. For particulars apply on the premises, or to William Hunter, Salem, Ont.

GARTON'S Regenerated Abundance Oats, for seed, yielded 66 per cent. more than other varieties sown last year. Geo. Fortner, Arva, Ont.

O. A. C. No. 21 Barley—Won second prize at Winter Fair. \$1.00 bushel. Swedish Select White Oats, second year from imported seed, 75 cents. Geo. W. Blyth, Marden, Ont.

O. A. C. No. 21 Barley—Prizewinning seed Guelph Winter Fair. \$1.25 per bushel; 10 bushels, \$11.15 bushels or over, \$1 per bushel. Bags extra. H. R. Nixon & Sons, St. George, Ont.

RESPONSIBLE agents wanted—Heavy Woven Fencing, Gates, Coiled and Barbed Wire, National Wire Fence Co., Prescott, Hamilton and Walkerville. Write to Prescott, Ont.

TEXAS! TEXAS!—If you wish to get any kind, or all kinds of information, absolutely reliable, about Texas, every phase of it, including detailed description of each county, send for a copy of the "Texas Almanac and State Industrial Guide" to The Dallas News, Dallas, Tex. Price 30c. a copy, postpaid, including late map of Texas.

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WANTED—A wheeled vehicle for Shetland pony, cheap. State price, description and condition. Pony, Farmer's Advocate, London, Ont.

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

FARM SOLD Auction sale, February 22: fresh milk; 5 fat cattle; 8 young cattle; 4 fat calves; 25 Dorset ewes in lamb; 10 geese; pigs; 1 sow. All implements. HENRY COLES, 2 1/2 miles north Cainsville, Brantford, Ont.

MEN ON SALARY \$150 A MONTH and expenses or liberal commission to introduce and sell the wonderful

King Separator & Aerator Sells on sight to every owner of a cow. Costs less than other machines. Does better work and makes work. Thousands of endorsements. FREE SAMPLE and exclusive territory to hustlers. Sold by our Agents only. Business established eight years. DE KING MFG. CO., Dept. 6, CHICAGO.

que pierced every ear. The crowd turned in astonishment to see who it was on horseback that cried so terribly, "Do not kill him! Do not kill Le Gardeur de Repentigny!" She called several citizens by name, and entreated them to help save him.

By her sudden interference, Angeli- que caused a diversion in the crowd. Le Gardeur rose up to his feet, and many persons recognized him with astonishment and incredulity, for no one could believe that he had killed the good Bourgeois, who was known to have been the warm friend of the whole family of De Repentigny.

De Pean, taking advantage of the sudden shift of feeling in the crowd, and anxious for the safety of Angeli- que, seized the bridle of her horse to drag her forcibly out of the press, telling her that her words had been heard, and in another instant the whole mob would turn its fury upon her, and in order to save her life she must fly.

"I will not fly, De Pean. You may fly yourself, for you are a coward. They are going to kill Le Gardeur, and I will not forsake him. They shall kill me first."

"But you must! You shall fly! Hark! Le Gardeur is safe for the present. Wheel your horse around, and you will see him standing up yonder quite safe! The crowd rather believe it was I who killed the Bourgeois, and not Le Gardeur! I have a soul and body to be saved, as well as he!"

"Curse you, soul and body, De Pean! You made me do it! You put those hellish words in my mouth! I will not go until I see Le Gardeur safe!"

Angeli- que endeavored frantically to approach Le Gardeur, and could not, but as she looked over the surging heads of the people she could see Le Gardeur standing up, surrounded by a ring of agitated men who did not appear, however, to threaten him with any injury—nay, looked at him more with wonder and pity than with menace of injury.

He was a prisoner, but Angeli- que did not know it, or she would not have left him. As it was, urged by the most vehement objurgations of De Pean, and seeing a portion of the crowd turning their furious looks towards herself as she sat upon her horse, unable either to go or stay, De Pean suddenly seized her rein, and spurring his own horse, dragged her furiously in spite of herself out of the tumult. They rode headlong to the casernes of the Regiment of Bearn, where they took refuge for the moment from the execrations of the populace.

The hapless Le Gardeur became suddenly sobered and conscious of the enormity of his act. He called madly for death from the raging crowd. He held out his hands for chains to bind a murderer, as he called himself! But no one would strike him or offer to bind him. The wrath of the people was so mingled with blank astonishment at his demeanor, his grief and his despair were so evidently genuine and so deep, that many said he was mad, and more an object of pity than of punishment.

At his own reiterated command, he was given over to the hands of some soldiers and led off, followed by a great crowd of people, to the main guard of the Castle of St. Louis, where he was left a prisoner, while another portion of the multitude gathered about the scene of the tragedy, surrounded the body of the Bourgeois, which was lifted off the ground and borne aloft on men's shoulders, followed by wild cries and lamentations to the House of the Golden Dog—the house which he had left but half an hour before, full of life, vigor and humanity, looking before and after as a strong man looks who has done his duty, and who feels still able to take the world upon his shoulders and carry it, if need were.

The sad procession moved slowly on amid the pressing, agitated crowd, which asked and answered a hundred eager questions in a breath. The two poor Recollet brothers, Daniel and Andreose, walked side by side

before the bleeding corpse of their friend, and stifled their emotions by singing, in a broken voice that few heard but themselves, the words of the solitary hymn of St. Francis d'Assisi, the founder of their order:

"Praised be the Lord, by our sweet sister Death,

From whom no man escapes, how'er he try!

Woe to all those who yield their part- ing breath

In mortal sin! But blessed those who die

Doing Thy will in that decisive hour!

The second death o'er such shall have no power.

Praise, blessing, and thanksgiving to my Lord!

For all He gives and takes be He adored!"

Dame Rochelle heard the approach- ing noise and tumult. She looked out of the window and could see the edge of the crowd in the market- place tossing to and fro like breakers upon a rocky shore. The people in the streets were hurrying towards the market. Swarms of men employed in the magazines of the Bourgeois were running out of the edifice towards the same spot.

The dame divined at once that something had happened to her master. She uttered a fervent prayer for his safety. The noise grew greater, and as she reached out of the window to demand of Passers-by what was the matter, a voice shouted up that the Bourgeois was dead; that he had been killed by the Grand Com- pany, and they were bringing him home.

The voice passed on, and no one but God heeded the long wail of grief that rose from the good dame as she fell upon her knees in the doorway, unable to proceed further. She preserved her consciousness, how- ever.

The crowd now swarmed in the streets about the doors of the house. Presently were heard the shuffling steps of a number of men in the great hall, bearing the body of the Bourgeois into the large room where the sunshine was playing so gloriously.

The crowd, impelled by a feeling of reverence, stood back; only a few ventured to come into the house.

The rough habitans who brought him in laid him upon a couch and gazed for some moments in silent awe upon the noble features, so pale and placid, which now lay motionless before them.

Here was a man fit to rule an em- pire, and who did rule the half of New France, who was no more now, save in the love and gratitude of the people, than the poorest piece of human clay in the potter's field. The great Levellor had passed His rule over him as He passes it over every one of us. The dead lion was less now than the living dog, and the Golden Dog itself was henceforth only a memory, and an epitaph forever of the tragedy of this eventful day.

"Oh, my master! my good, noble master!" exclaimed Dame Rochelle, as she roused herself up and rushed to the chamber of the dead. "Your implacable enemies have killed you at last! I knew it! Oh, I knew that your precious life would one day pay the penalty of your truth and jus- tice! And Pierre! Oh, where is he on this day of all days of grief and sorrow?"

She wrung her hands at the thought of Pierre's absence to-day, and what a welcome home awaited him.

The noise and tumult in the street continued to increase. The friends of the Bourgeois poured into the house, among them the Governor and La Corne St. Luc, who came with anxious looks and hasty steps to in- quire into the details of the murder.

The Governor, after a short con- sultation with La Corne St. Luc, who happened to be at the Castle, fearing a riot and an attack upon the magazines of the Grand Company, ordered the troops immediately under arms, and dispatched strong detach- ments under the command of careful and trusty officers to the Palace of the Intendant, and the great ware-

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One who can do plain cooking, and is not afraid of work. Good wages will be paid to a person willing to earn them. Apply:

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of every description. Owing to the rapid increase in business, Mr. L. C. Scruby has been taken into partnership. During the spring months the export of horses of the light and heavy breeds will be a specialty. Write for prices, terms and references.

POULTRY AND EGGS

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

BARRED ROCK, Black Minorca and Houdan cockerels and pullets. Winners at Guelph, Toronto, Nanpance and Montreal. C. Day, Highgate, Ont.

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BARRED ROCK cockerels. Prices low. Satisfaction guaranteed. Write for particulars. W. W. Dods, Alton, Ont.

BARRED ROCKS—First winners at Canadian National and Western Fair. High-grade stock at low prices. Write me. Leslie Kerns, Freeman, Ont.

FOR SALE—Buff Wyandotte and S. C. Buff Leghorn cockerels. W. R. McDonald, Petrolia, Ont.

FOR SALE—Blue Andalusians. High-class stock. Male birds, and female winners at Guelph, Central Ontario, Hamilton, Brantford, Ottawa. Good layers. Chas. Richardson, Gourcock, Ont.

M. B. TURKEYS from prizewinning stock. G. E. Nixon, Arva, Ont.

Attention is directed to the new advertisement of Royal Brand Fence in this issue, by the Sarnia Fence Company of Sarnia, Ont., with the catching caption, "Buy Farm Fencing by Mail."

SALE DATES CLAIMED.
February 16th—Wm. Channon & Son, Oakwood, Ont.; Shorthorns.
March 1st—R. & S. Nicholson, Sylvan, Ont.; Shorthorns.
March 2nd—Provincial Auction Sale at Guelph, Shorthorns and Herefords.
March 8th—Arthur Johnston, Greenwood, Ont.; Shorthorns.
March 9th—Nelles & Woodley, Boston, Ont.; Holsteins.
March 24th—A. W. Smith, Maple Lodge, Ont.; Shorthorns.
March 25th—J. A. Caskey, Madoc, Ont.; Holsteins.
April 20th—James Boring, Williamsburg, Ont.; Ayrshires.

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High-class stock. winners at Guelph, Ontario, Ottawa, Gourlock, Ont.

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house of the Friponne, and also into the market-place, and to the residence of the Lady de Tilly, not knowing in what direction the fury of the populace might direct itself.

The orders were carried out in a few minutes without noise or confusion. The Count, with La Corne St. Luc, whose countenance bore a concentration of sorrow and anger wonderful to see, hastened down to the house of mourning. Claude Beauharnais and Rigaud de Vaudreuil followed hastily after them. They pushed through the crowd that filled the Rue Buade, and the people took off their hats, while the air resounded with denunciations of the Friponne, and appeals for vengeance upon the assassin of the Bourgeois.

The Governor and his companions were moved to tears at the sight of their murdered friend lying in his bloody vesture, which was open to enable the worthy Dr. Gauthier, who had run in all haste, to examine the still oozing wound. The Recollet Brother Daniel still knelt in silent prayer at his feet, while Dame Rochelle with trembling hands arranged the drapery decently over her dead master, repeating to herself:

"It is the end of trouble, and God has mercifully taken him away before He empties the vials of His wrath upon this New France, and gives it up for a possession to our enemies! What says the prophet? 'The righteous perisheth, and no man layeth it to heart, and merciful men are taken away, none considering that the righteous are taken away from the evil to come!'"

The very heart of La Corne St. Luc seemed bursting in his bosom, and he choked with agony as he placed his hand upon the forehead of his friend, and reflected that the good Bourgeois had fallen by the sword of his godson, the old man's pride—Le Gardeur de Repentigny.

"Had death come to him on the broad, common road of mortality—had he died like a soldier on the battlefield," exclaimed La Corne, "I would have had no spite at fate. But to be stabbed in the midst of his good deeds of alms, and by the hand of one whom he loved! Yes, by God! I will say it! and by one who loved him! Oh, it is terrible, Count! Terrible and shameful to me as if it had been the deed of my own son!"

"La Corne, I feel with you the grief and shame of such a tragedy. But there is a fearful mystery in this thing which we cannot yet unravel. They say the Chevalier de Pean dropped an expression that sounded like a plot. I cannot think Le Gardeur de Repentigny would deliberately and with forethought have killed the Bourgeois."

"On my life he never would! He respected the Bourgeois, nay, loved him, for the sake of Pierre Philibert, as well as for his own sake. Terrible as is his crime, he never committed it out of malice aforethought. He has himself been the victim of some hellish plot—for a plot there has been. This has been no chance melee, Count," exclaimed La Corne St. Luc, impetuously.

"It looks like a chance melee, but I suspect more than appears on the surface," replied the Governor. "The removal of the Bourgeois decapitates the party of the Honnetes Gens, does it not?"

"Gospel is not more true! The Bourgeois was the only merchant in New France capable of meeting their monopoly and fighting them with their own weapons. Bigot and the Grand Company will have everything their own way now."

"Besides, there was the old feud of the Golden Door," continued the Governor. "Bigot took its allusion to the Cardinal as a personal insult to himself, did he not, La Corne?"

"Yes; and Bigot knew he deserved it equally with his Eminence, whose arch-foe he had been," replied La Corne. "By God! I believe Bigot has been at the bottom of this plot. It would be worthy of his craft."

"These are points to be considered, La Corne. But such is the secrecy

of these men's councils that I doubt we may suspect more than we shall ever be able to prove." The Governor looked much agitated.

"What amazes me, Count, is not that the thing should be done, but that Le Gardeur should have done it!" exclaimed La Corne, with a puzzled expression.

"That is the strangest circumstance of all, La Corne," observed the Governor. "The same thought has struck me. But he was mad with wine, they say; and men who upset their reason do not seldom reverse their conduct towards their friends; they are often cruellest to those whom they love best."

"I will not believe but that he was made drunk purposely to commit this crime!" exclaimed La Corne, striking his hand upon his thigh. "Le Gardeur in his senses would have lost his right hand sooner than have raised it against the Bourgeois."

"I feel sure of it; his friendship for Pierre Philibert, to whom he owed his life, was something rarely seen nowadays," remarked the Count.

La Corne felt a relief in bearing testimony in favor of Le Gardeur. "They loved one another like brothers. Bigot had corrupted the habits, but could never soil the heart or lessen the love of Le Gardeur for Pierre Philibert, or his respect for the Bourgeois, his father."

"It is a mystery, La Corne; I cannot fathom it. But there is one more danger to guard against," said the Governor, meditatively, "and we have sorrow enough already among our friends."

"What is that, Count!" La Corne stood up erect, as if in mental defiance of a new danger.

"Pierre Philibert will return home to-night," replied the Governor; "he carries the sharpest sword in New France. A duel between him and Le Gardeur would crown the machinations of the secret plotters in this murder. He will certainly avenge his father's death, even upon Le Gardeur."

La Corne St. Luc started at this suggestion, but presently shook his head. "My life upon it," said he, "Le Gardeur would stand up to receive the sword of Pierre through his heart, but he would never fight him! Besides, the unhappy boy is a prisoner."

"We will care well for him and keep him safe. He shall have absolute justice, La Corne, but no favor."

An officer entered the room to report to the Governor that the troops had reached their assigned posts, and that there was no symptom of rioting among the people in any quarter of the city.

The Governor was greatly relieved by these tidings. "Now, La Corne," said he, "we have done what is needful for the public. I can spare you, for I know where your heart yearns most to go, to offer the consolations of a true friend."

"Alas, yes," replied La Corne sadly. "Men weep tears of water, but women tears of blood! What is our hardest grief compared with the overwhelming sorrow and desolation that will pass over my poor goddaughter, Amelie de Repentigny, and the noble Lady de Tilly at this doleful news?"

"Go comfort them, La Corne, and the angel of consolation go with you!" The Governor shook him by the hand and wished him Godspeed.

La Corne St. Luc instantly left the house. The crowd uncovered and made way for him as they would have done for the Governor himself, as with hasty strides he passed up the Rue du Fort and on towards the Cape, where stood the mansion of the Lady de Tilly.

"Oh, Rigaud, what a day of sorrow this is!" exclaimed the Governor to De Vaudreuil, on their return to the Castle of St. Louis. "What a bloody and disgraceful event to record in the annals of New France!"

"I would give half I have in the world could it be forever blotted out," replied De Vaudreuil. "Your friend, Herr Kahn, has left us, fortunately, before he could record in his book for all Europe to read,

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The up-to-date woman whose skin and lips easily chap and burn in the cold winter winds, turns, for quick relief, or as a preventive, to her assortment of

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ROYAL BRAND FENCE is made of the best number 9 Cleveland hard, steel wire, heavily galvanized. Our knot (as shown above) will not sag or get out of shape, no uneven line wires. Don't let your local dealer cry quality, to justify their higher price. No better fence than the **ROYAL BRAND** at any price. We guarantee if this fence when received is not the best and cheapest fence you ever purchased, return it at our expense and we will refund every cent of your money. Get some neighbors to go in with you for a carload (3,000 rods in one shipment.) We pay the freight and allow you 1c per rod off the price.

Number	Line Wires	Inches High	Inches Stays Apart	Size of Wire	SPACING Between Line Wires	Per Rod Freight Paid	If you want to know more about this fence, send us a post card and we will send you a sample knot by mail. Hundreds of farmers are taking advantage of this offer. Order now.
7-28	7	28	16 1/2	No. 9	3.3.4.5.6.7	26 1/2 c	
7-28-0	7	28	22	"	9.3.3.4.5.6.7	24 c	
7-40	7	40	16 1/2	"	9.5.6.6.7.7 1/2.8 1/2	26 1/2 c	
7-40-0	7	40	22	"	9.5.6.6.7.7 1/2.8 1/2	24 c	
7-48	7	48	16 1/2	"	9.5.6.7.9.10.11	27 1/2 c	
7-48-0	7	48	22	"	9.5.6.7.9.10.11	25 c	
8-40	8	40	16 1/2	"	9.3.4.5.6.7.7.8	29 c	
8-40-0	8	40	22	"	9.3.4.5.6.7.7.8	26 1/2 c	
8-48	8	48	16 1/2	"	9.4.5.6.7.8.9.9	30 c	
8-48-0	8	48	22	"	9.4.5.6.7.8.9.9	27 1/2 c	
9-48	9	48	16 1/2	"	9.3.4.5.5.6.8.8.9	32 1/2 c	
9-48-0	9	48	22	"	9.3.4.5.5.6.8.8.9	30 c	
10-50	10	50	16 1/2	"	9.3.4.4.5.5.5.7.8.9	35 c	
10-50-0	10	50	22	"	9.3.4.4.5.5.5.7.8.9	32 1/2 c	

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THE SARNIA FENCE COMPANY, Sarnia, Ontario

that men are murdered in New France to avenge the vengeance of a Royal Intendant and fill the purses of the greatest company of thieves that ever plundered a nation."

"Hark, Rigaud! do not say such things," interrupted the Governor; "I trust it is not so bad as that; but it shall be seen into, if I remain the Governor of New France. The blood of the noble Bourgeois shall be required at the hands of all concerned in his assassination. The blame of it shall not rest wholly upon that unhappy Le Gardeur. We will trace it up to its very origin and fountain-head."

"Right, Count; you are true as steel. But mark me! if you begin to trace this assassination up to its origin and fountain-head, your letters of recall will be despatched by the first ship that leaves France after

the news reaches Versailles." Rigaud looked fixedly at the Count as he said this.

"It may be so, Rigaud," replied the Count, sadly; "strange things take place under the regime of the strange women who now rule the Court. Nevertheless, while I am here my whole duty shall be done. In this matter justice shall be meted out with a firm and impartial hand, no matter who shall be incriminated!"

"The Count de la Galissoniere at once summoned a number of his most trusted and most sagacious councillors together—the Intendant was not one of those summoned—to consider what steps it behooved them to take to provide for the public safety, and to ensure the ends of justice in this lamentable tragedy."

(To be continued.)

TAKE CARE OF THE MANURE.

In a recent issue of this paper, a contributor estimated the value of manure produced annually on the average 100-acre farm at \$200. This estimate will not be far out, and to make the most of this large source of wealth is certainly important. The two main causes that destroy the value of barnyard manure are leaching and fire-fanging. There is no doubt but that these two causes will more than cut in two the value of a season's manure when it is left in an open yard. If the manure is applied to the land as it is made, the waste from these two causes is saved. By the use of a good Litter Carrier, manure can be put in the field as easily as in the yard, by the ordinary method.

The Ontario farmer is alive to the value of the manure-pile. There is no doubt that the fertility of our farms is maintained only by it. Still, there are many farms going back, producing poorer crops each year. There is no need for this if the most were made of the barnyard manure, and unless there is a change in a short time, expensive commercial fertilizers will have to be used.

Anything that will help our farmers in the more economical handling of manure is certainly a good investment, and there is no investment that will help as much as a good litter or manure carrier. With a good carrier properly installed, four large barrow loads of manure can be removed at one time from the stable, and dumped directly into the wagon or sleigh. When a load is made, it can be taken to the field, and the manure applied to the land with less work than it is put in the barnyard with a barrow. Many farmers who, to-day, have no time to get the manure out, and who lose a great percentage of its fertilizing value by leaving it in an open pile, could save with a litter carrier enough time to get the manure to the field. For, with a litter carrier, you can take the manure from the stable in less than half the time of any other method, and you save re-loading. Where a litter carrier can enable a farmer to put the manure directly on the land, whereas otherwise it would have to be left in an open pile, it would save enough value of fertilizing constituents to pay for itself every year.

There is no better litter carrier than the "BT." It is manufactured by Beatty Bros., of Fergus, Ontario. They have been building the same carrier now for five years, so that the "BT" is no experiment. More of them are in use than any other carrier in Canada. They are well and strongly built of the best material, and, running, as they do, on a substantial level overhead track, they will last—in fact, a "BT" Carrier, when properly installed, is a permanent investment. Beatty Bros. will be pleased to send their catalogue, giving full information about their carrier and how best to install them, to any farmer.

The Roundabout Club

COMPETITION III.

Write an essay on "A Midwinter Reverie," all essays to be received at this office not later than February 28. Announcement of prize-winners in last competition will appear in an early issue.

TRADE TOPIC.

A very fine exhibit was made at the Eastern Ontario Live-stock and Poultry Show by Beatty Bros., of Fergus, Ont., who showed their popular line of hay slings, litter carriers, stanchions, and other useful farm conveniences and appliances. The name of this firm is becoming well and favorably known to Canadian farmers, identified as it is with a superior line of products. Incidentally, Mr. Beatty declares to our representative that "The Farmer's Advocate" is the best advertising medium he has ever used.

GOSSIP.

S. J. Prouse, Ingersoll, Ont., has en route a new importation of thirty Clydesdale stallions and fillies, an AI lot, which will be sold by auction on March 4th, at Union Stock-yards, West Toronto. Look for advertisement and further information in future issues.

GOSSIP.

Owing to the rapid increase in his business as exporter of pure-bred stock, A. J. Hickman, of Court Lodge, Egerton, Kent, England, whose advertisement has been running in this paper for considerable time, has found it necessary to take in a partner, and the firm name is now Hickman & Scruby. The firm have a farm of their own, and select horses, cattle, sheep and swine of the various pure-breeds, and have made many satisfactory consignments to this and other countries.

The sale of Shorthorns belonging to A. D. Schmidt & Sons, at West Toronto, on February 3rd, was well attended. The cattle, while nicely bred, and of a useful class, were only in moderate condition, and good bargains were secured by buyers. The highest price realized was \$180, for the three-year-old cow Sunset, purchased by C. A. Archibald, of Truro, N. S. Israel Groff, Elmira, Ont., secured Mina Lass, a four-year-old cow, at \$160. Mayflower went to F. Martindale, Caledonia, at \$140, and Dunrobin, to J. Dixon, Mansfield, Ohio, at \$100. F. L. Fuller, of Truro, N. S., secured several at bargain prices.

SUNNY ACRES SHORTHORN SALE.

The dispersion sale on February 16th, of the richly-bred herd of 28 Shorthorns belonging to Wm. Channon & Sons, of Oakwood, Ont., at their farm, near Lindsay, Mariposa Station, G. T. R., as advertised, will afford a favorable opportunity to secure good cattle at the buyer's own price. The catalogue shows that the animals are bred on the most desirable lines, and they are of up-to-date type. Included are several representatives of the popular Cruickshank Duchess of Gloster and Lady Fanny families; also of the Kinellar Miss Ramsden and Bloom tribes, a Kilblean Beauty, also several of the Bruce Jenny Lind and the Longmore Lovelace tribes, are in the offering, besides a number of the fine old milking Syme and Lady Eden families. Certificates of registration will be furnished with each animal, and most of the offering are eligible to registry in the American Herdbook at the ordinary rate. The terms are cash, or 12 months' time on satisfactory notes bearing interest at 5 per cent., and conveyances will meet the morning trains at Mariposa Station.

THE MADOC HOLSTEIN SALE.

The dispersion sale of the entire herd of 41 Holsteins, belonging to J. A. Caskey, of Madoc, Ont., to take place on March 25th, should attract the attention of breeders and dairymen from many districts, now that milk and its products are in such active demand, and good prices. The owner wishes it distinctly understood that this is a straight dispersion sale, and that there will be no bidding in or previous selling. Every female in the herd, except one, has been bred by the owner, and never before in his district has it been the privilege of the public to buy at auction the quality of pure-bred Holsteins that will be sold at this event. Mr. Caskey writes of the herd: In 1898, I made an importation of 11 females and 1 male, from the noted herd of Henry Stevens & Sons, of New York State. From this importation I have bred my present herd, and from the day I first purchased, they have been a source of the deepest satisfaction to me. My inability to get first-class dairy help, coupled with the fact that my hands are playing out on milking, has decided me to offer at dispersion sale my great herd of cows.

The bull I imported first was a son of Manor De Kol, whose dam holds an A. R. O. butter record of 26.66 lbs. in seven days.

My second stock bull was sired by De Kol 2nd's Butter Boy 2nd, and out of Inka Darkness Pat, a cow that produced for me 74 lbs. in one day, from two milkings.

No. 3 stock bull was a son of the grand old cow Maggie Keyes, butter 26 lbs. 10 ozs. in seven days; milk 82 lbs. 8 ozs. one day; 19,434 lbs. in one year.

No. 4 stock bull was the grand old bull, Count Echo De Kol, a Record-of-Merit bull himself, with a great many Record-of-Merit daughters, as well as a large number of Record-of-Performance daughters. He was imported to Canada a young bull, but left behind him two

A. R. O. daughters, one with a 20-lb. record, the other with an 18-lb. record. His daughters are cows with grand level udders, just the kind of cow that pleases a particular buyer. Eight of this bull's daughters will be in the sale.

No. 5 stock bull is sired by Aaggie Cornucopia Johanna Lad, whose dam, Aaggie Cornucopia Pauline, has the enormous A-R-O. seven-day butter record of 34.52 lbs. at 4 years, and No. 6 stock bull is the son of Sara Jewel Hengerveld, butter A. R. O. in seven days, 28.12 lbs.; in thirty days, 110.18 lbs., who will be sold the day of the sale. The females will be referred to in next week's paper.

S. F. Johnston & Son, Ashburn, Ont., write, re Gossip notes respecting their Shorthorn herd appearing in our January 27th issue, the statement regarding the heifers and cows said to have been sired by Ben Lomond (imp.) is incorrect, owing to a misreading of the copy. It should read "all served by Ben Lomond," Messrs. Johnston having owned the bull only since July, 1909.

ARTHUR JOHNSTON'S SALE DATE.

The date of the dispersion sale of the Shorthorn herd of Arthur Johnston, Greenwood, Ont., has been changed from March 9th to March 8th. This change has been made in order to secure the services as auctioneer of Col. Carey M. Jones, of Chicago, who officiated so ably at the recent West Toronto sales. Col. Jones conducts a school of auctioneering in Chicago, as well as conducting auction sales all over the Western and Middle States, and has more than once successfully conducted Shorthorn sales in Canada. Parties interested will do well to make a note of the change of date of Mr. Johnston's sale.

W. H. Simmons, New Durham, Ont., writes as follows of the breeding of the great sire, Tidy Abbekerk Mercena Posch, illustrated on another page, who, he claims, stands at the head of all the Canadian-bred bulls, and who he believes has more world's champion official records in his pedigree than any other bull of the breed. "His dam, Tidy Pauline De Kol, won first prize in official tests in Canada four years in succession, never equaled by any other cow in this country; also champion over all breeds in Guelph dairy test. Her official test is 28.41 lbs. butter in seven days, and 107 lbs. butter in thirty days, like her dam, Tidy Abbekerk, with a record of 27.28 lbs. of butter in seven days; two daughters have excelled their dam in butter-production at the same age. This great sire has two sisters with official records of 14 and 22.50 lbs. of butter in seven days, at two and three years of age. One of these, Tidy Pauline De Kol 2nd, won the Guelph dairy test under thirty-six months, after milking nine months. Her official test, eight months after calving, is 14 lbs. butter in seven days, the largest record ever made in the world at that time. Tidy Abbekerk and her two daughters averaged 28 lbs. butter in seven days, combining these with the records of her two granddaughters, exceeds all records in the world. Tidy Abbekerk Mercena Posch's sire's dam, Mercena 3rd, 27.65 lbs. of butter in seven days, and 113 lbs. in 30 days, makes his dam and sire's dam average 28 lbs. of butter in seven days, and 110 lbs. in 30 days."

Among Andrew Carnegie's innumerable Scotch stories is one about a caddie of St. Andrew's. This caddie's wife—so Mr. Carnegie's story runs—was much troubled by her husband's loose way of life. He could never have a good day on the links but he must end it with a wet night at the tavern. So to cure him the woman lay in wait on the road one evening, dressed in a white sheet.

"Who the devil are you?" asked the intemperate caddie.

"I'm Auld Nickie," said the figure, in a hollow voice.

"Gie's a shade o' yer hand, then," said the tipsy caddie. "I'm married tae a sister o' yours. She'll be waitin' for us up at the hoose, an' nae doot she'll mak' ye welcome."

"You Hamericans say we have no humor," said the loyal Britisher. "but I'll ave you understand, sir, that English jokes are not to be laughed at."

DOES POULTRY PAY?

W. S. Phillips, of McAuley, Man., Answers the Question.

Those of our readers who are interested in making a profit from poultry, raising, will undoubtedly be interested in the following letter from W. S. Phillips, of McAuley, Manitoba. Mr. Phillips was one of the prizewinners in the recent "Poultry-for-Profit Club" contest, held by Lee Manufacturing Co., Limited, of Pembroke, and this letter was written in acknowledgment of the prize money which he had just received. Mr. Phillips' letter reads:

McAuley, Man., Jan. 13th, 1910.
Lee Manufacturing Co., Limited, Pembroke, Ont.:

Dear Sirs,—I am in receipt of your cheque for Ten (\$10.00) Dollars, for which please accept my sincere thanks. I feel that there is more praise due the Peerless Incubator than myself in this contest. I have had my Peerless two seasons. First season (1908), I purchased all my eggs for setting, paid my first payment of \$24.00, and cleared \$126.00. Last season (1909), I purchased \$18.00 worth of eggs, paid last payment of \$24.00 on incubator, paid cost of feed, houses, etc., \$64.00, and showed the following balance sheet:

Sale of cockerels for breeding purposes	\$ 96.00
Sale of cockerels dressed	21.00
Value of pullets and cockerels on hand	230.00
Total	\$347.00
Expenses	106.00
PROFIT	\$241.00

This is \$367.00 profit from one Peerless in two seasons, and the machine is still good as new. Does poultry pay?

It gives me pleasure to see future success in "box-car letters" marked up for your firm.

Thankfully yours,
(Sgd.) W. S. PHILLIPS.

We are very certain that there are but few of our readers who are not familiar with the name of Lee Manufacturing Co., Limited, the firm to which, possibly, more than to anyone else in Canada, is due credit for advancing the poultry interests of the Dominion. The missionary work done by these people to help the cause of poultry raising has been heavy; but the results have justified the labor. The field is a big one—broad, and full of wonderful possibilities—and their work is bearing fruit. Their methods are intelligent, and worthy of more than passing commendation, while the advice they offer free to those interested has proved a revelation to thousands.

Readers of this paper who are not already familiar with the wonderful little book, "When Poultry Pays," would do well to send at once for it to Lee Manufacturing Company, Limited, 450 Pembroke Ave., Pembroke, Ont. This book is sent free on request—though it is so valuable that it really ought not to be. The information contained in it is invaluable to any poultry raiser.

"The usual fee per visit of physicians in my city," recently remarked an Ohio doctor, "is \$3. It never occurred to me to doubt the equity of this fee until I was called in by a German restaurant-keeper to attend his four-year-old boy."

"The youngster had swallowed a 25-cent piece, and was in a bad way. He nearly choked to death before I got to him. I got the quarter and saved the boy. Nevertheless, the parent entered a vigorous protest when, in answer to his query, I put my fee at the rate above quoted."

"That's robbery" was his prompt response. "Five dollars for recovering a quarter? Ay, doctor, I am surprised at you!"

"And I must confess his protest seems logical."

Lover—"Of course, darling, our engagement must be kept private for a while."
The Girl—"Oh, yes, dear. I've told everybody not to say a word."

QUESTIONS AND ANSWERS. Veterinary.

SALLANDERS.

Horse has a crack in front of the hock. J. J. W.

Ans.—Apply a little butter of antimony with a feather, once daily, for three days. After this, apply oxide-of-zinc ointment three times daily. You will find it very hard and tedious to treat. Keep as quiet as possible. V.

URINARY TROUBLE.

Horse has occasionally had difficulty in urinating for two years. He steps from side to side, passes a little urine, then the passage suddenly ceases, and he appears to be in pain. He eats well, but does not gain in flesh. What can I give him to fatten him for sale? J. D.

Ans.—The symptoms indicate calculi (stones) in the bladder. These can be removed only by an operation, which is critical, and often fatal in horses. If one of these calculi becomes lodged in the urethra, an operation will be necessary, but it will probably be wise not to operate unless this condition arises. As he eats well, the reason of his unthriftiness is probably the urinary trouble. All that I can suggest is good feed and regular exercise. Of course, if you sell him as a sound horse, you will probably get into trouble when the purchaser discovers the trouble. V.

Miscellaneous.

INTEREST—LUMP JAW.

1. Is it lawful to compute interest quarterly on an account (interest at 7 per cent.), if there is no written agreement?

2. Is it lawful to sell a bull that is affected with lump jaw for beef? N. S. SUBSCRIBER.

Ans.—1. No. 2. No.

VOTING.

1. What is the penalty for a man taking the oath and voting as owner, when his name cannot be found on the register?

2. What is the penalty for a man taking oath and voting under the full age of twenty-one years? Ontario. ENQUIRER.

Ans.—In either case, if the thing is done knowingly, willfully, and corruptly, the party is guilty of an indictable offence, and liable to imprisonment for any term not exceeding fourteen years.

ENGINEERING IN SASKATCHEWAN.

How may one qualify for running a threshing engine in Saskatchewan? W. S.

Ans.—With reference to the provisions of the Steam Boilers Act in Saskatchewan, I have to say that a Provincial Certificate, qualifying the holder to operate boilers up to 40 h.-p. for a period of one year, can be granted upon receipt of satisfactory proof that the applicant has served one year, or three threshing seasons, operating boilers. A form of application for this grade of certificate is supplied by this Department upon request. Applicants who have not had this experience, are required to serve three seasons firing under a qualified engineer, and upon completion of this term to pass an oral examination before an Inspector of Steam Boilers. For the higher grades of certificates, a written examination is necessary, previous to taking which, the applicant must file proof of considerable engineering experience in the operation of boilers. The fees in this connection are: For Provisionals, \$3; for third- or second-class, \$5; for a first-class, \$10. The examinations are most conveniently taken at this Department, and the certificates issued by us are good only for the Province of Saskatchewan.

As for the last question regarding the horse-power of an engine, I may say that this is a matter of engineering knowledge which can be obtained from any authority on that subject.

E. J. ROBINSON, Deputy Minister.

“RUBEROID” ROOFING

(TRADE MARK REGISTERED)

Pronounce it RUE-BER-OID

has borne the TEST OF TIME

It is THE PIONEER

and its ARMY OF IMITATORS

strive vainly to make the RUBEROID GUM

which forms the base of Ruberoid.



Beware Imitations.

Time is the TEST THAT TELLS in any PREPARED ROOFING

Our imitators market SO-CALLED “RUBBER”

roofings. Do not be deceived. Ruberoid contains

NO RUBBER

It contains no tar. It is not an Asphalt Roofing.

The Genuine bears fac-simile of the RUBEROID MAN on the outside wrapper, and the word RUBEROID is stamped every few feet on the underside of the Roofing. GET OUR FREE BOOK, which tells you all about Roofing, fairly, frankly and honestly WRITE TO-DAY. Dealers everywhere.

THE STANDARD PAINT CO. OF CANADA, Limited, Manufacturers: 286 St. James Street, MONTREAL.

A Beautifully Even Scale

Only the world's most famous pianos have a scale that can compare with the beautifully even scale of the Sherlock-Manning 20th Century Piano.



This is very brilliant, with a sustaining power little short of marvellous. It is a scale expert musicians praise.

20th Century Piano

Poehlmann wire is used exclusively. This is conceded to be the highest standard piano wire in the world.

Look on the hammers and you'll see the name Weickert on the felt. Weickert stands for the highest grade of felt. As quality and durability of tone depend to a large extent on the quality of the felt, this is another reason why the tone of the Sherlock-Manning 20th Century Piano is of such superior quality and so lasting.

It will pay you to write us.

SHERLOCK-MANNING ORGAN COMPANY

LONDON.

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LOUIS XV.



THE BEVERAGE FOR ALL WEATHERS.

“Epps’s” means Excellence

EPPS’S COCOA

A delicious food and drink in one.

A cup of “Epps’s” at breakfast Warms and Sustains you for hours. As a supper beverage it is perfect. Comforting

Subscribe for “The Farmer’s Advocate and Home Magazine.” \$1.50 per Year in Advance.

LAND WARRANTS.

Can a married woman buy a South African veteran land warrant, and do the settlement duties the same as a man. P. M.

Ans.—We think so.

“DURHAM” CATTLE.

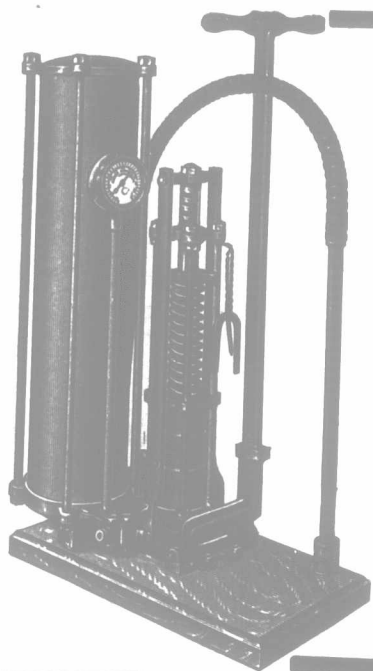
Looking through your paper for the names and addresses of some English Durham breeders, I fail to find any. OLD SUBSCRIBER.

Ans.—The breed you know as “Durham” is no longer officially designated by that name. It is called Shorthorn, and there are numerous advertisements of this breed in our pages.

GOSSIP.

DISPERSION SALE OF HOLSTEINS.

Included in the Holstein sale of Nelles & Woodley, to be held at Clover Dell Stock Farm, Boston, Ont., on Wednesday, March 9th, 1910, are cows and stock from cows averaging from 45 lbs. per day, and 8,000 lbs. per season, as two-year-olds, to 67 lbs. per day, and 10,500 lbs. per season, as mature cows. The one stock bull, Paul De Kol Canary King (imp.), traces to Calamity Jane's Paul, sire of fifteen A. R. O. daughters, and to Canary Starlight, 21 lbs. 6 ozs. butter in seven days. The other stock bull, Toskey 2nd's Mercena Posch, is a son of Tidy Abbekerk Mercena Posch, whose seven nearest dams average within a fraction of 27 lbs. butter in seven days. His dam is Toskey 2nd (imp.), with 65 lbs. milk per day on two milkings on grass alone. This cow is one of the many good ones included in the sale. There are also a number of young bulls, ranging from eight to thirteen months old, which are descendants from such cows as Aaggie Cornucopia 3rd, 580.4 lbs. milk, 24 lbs. 8.2 oz. butter in seven days, and Winnie R., with a record of 17,502 lbs. milk in one year, and other equally large producers. The cows in the combined herd have averaged over \$75 per cow per season for the past two years, allowing 90c. per cwt. for the milk, which is our cheese-factory price. Most of the pure-bred females included in the sale trace to Tidy Abbekerk, 25.48 lbs. butter in seven days. The grade cows are an exceptionally fine lot, with records ranging from 7,500 to 10,400 lbs. milk per season. This stock will be for inspection at any time; visitors welcome, but nothing will be sold previous to the sale.



BEAN MAGIC PUMP No. 9.

The easiest-running pump ever made. The wonder among spray pumps.

The pump for the orchard that is too large for a hand-pump and too small for a power-pump.

The man who operates the **MAGIC PUMP** is working against **only one-half the pressure indicated on the gauge**. The **spring** does the rest. Pressure is important in effective spraying.

THE MAGIC GIVES THE PRESSURE.

For descriptive catalogue of this and power pumps, write us. We are the Canadian agents.

NIAGARA BRAND SPRAY CO'Y, Limited, Burlington, Ontario.

NIAGARA SPRAYS ARE ALSO MADE BY:
 Niagara Sprayer Co., Middleport, N. Y.
 Oregon Spray Co., Portland, Oregon.
 Medford Spray Co., Medford, Oregon.
 Hood River Spray Mfg. Co., Hood River, Oregon.
 Bean Spray Pump Co., Cleveland, Ohio.

NIAGARA BRAND LIME-SULPHUR SPRAY.

MADE IN CANADA.

The famous spray of the Pacific Coast, which has made possible the production of a clean, perfect and marketable fruit, bringing the highest prices.

- BECAUSE** :- It is properly made.
- Cooked so as to retain permanently its strength.
 - It is not a mere wash or mixture, but a perfect solution of insecticidal and fungicidal power.
 - It is always ready for use.
 - When NIAGARA is used thoroughly a clean and perfect fruit is assured.
 - This means prices, profits and prosperity.

Write for our Spray Book and prices.

POTASH MEANS PROFIT

Test the truth of this statement by using Potash this year in conjunction with a Phosphatic and Nitrogenous Fertilizer.

Potash is an Absolutely Essential Plant Food, and may be obtained from all leading Fertilizer Dealers and Seedsmen in the highly concentrated forms of

MURIATE OF POTASH AND SULPHATE OF POTASH

Potash promotes maturity, and insures high-class quality of all Farm, Orchard and Garden Crops.

Write us for full particulars and FREE copies of our bulletins, including: "Fertilizers: Their Nature and Use"; "Fertilizing Orchard and Garden"; "The Potato Crop in Canada"; "The Farmer's Companion," etc., etc.

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Now is the time! Get ready for Harvest - Write at once for

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Contains valuable information for every Farmer and Market Gardener.

KENNETH McDONALD & SONS
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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.

QUESTIONS AND ANSWERS.

Miscellaneous.

POLAND-CHINA PIGS WANTED.

We have a request from a subscriber who wishes to purchase Poland-China pigs. Breeders having Poland-Chinas for sale will find it to their advantage to advertise them in "The Farmer's Advocate."

RAISING THE RENT.

A is an employer and B his employee. B rents one of A's houses and starts to work. After a time B decides to leave A, but A says if he leaves, he must vacate the house at once. Now, if B leaves A's employ, can A raise the rent of the house as high as he likes, providing B cannot get another house to suit him?
 NEW SUBSCRIBER, Ontario.

Ans.—Yes; provided he gives due notice. Assuming that the tenancy is monthly, he would have to give a month's notice—the period of such notice to end with some month of the tenancy.

FERTILIZER APPLIED IN HILLS FOR CORN.

What would you consider the best make-up of fertilizer for sand and clay loam land for corn, to be planted with the corn, and what quantity should be put in each hill? I might say the sandy field was about half a stand of alfalfa sod, manured and plowed last fall. The clay loam field was seeded to red clover last year. I mean to manure it early in spring, plow the first of June, and plant with corn. All my corn is silo variety.
 F. R.

Ans.—

	Clay loam soil.	Acid phosphate.
300 lbs.	300 lbs.	Muriate of potash
130 lbs.	100 lbs.	30 lbs. Nitrate of soda
60 lbs.		

Totals 490 lbs. 430 lbs. per acre, or 2 ozs. per hill. 1 1/2 ozs. per hill.

Considering that in both cases a legume crop is turned under, and manure applied besides, only sufficient artificial nitrogen to give the young plants a start need be applied, hence the small amounts of nitrate of soda.

If it is thought desirable to sow the fertilizer in the hills instead of broadcasting it, the proportion per hill can be calculated as follows:

490 lbs. x 16 = 7,840 ounces of fertilizer per acre. If hills are 10 inches apart, each way, there will be 3,920 hills per acre, which is found thus:
 40 x 40 = 1,600 square feet per 144 (sq. in.)

plant. There are 43,560 square feet per acre, and 144 goes into 43,560 3,025 times; 3,920 goes into 7,840 twice, therefore the allotment of fertilizer per hill is 2 ounces.

Taking the amount of 430 lbs. per acre for the clay loam soil, and calculating as above, we find that the amount per hill in this case is 1 1/2 ounces.

B. L. E.

BUSINESS KNOWLEDGE PAYS

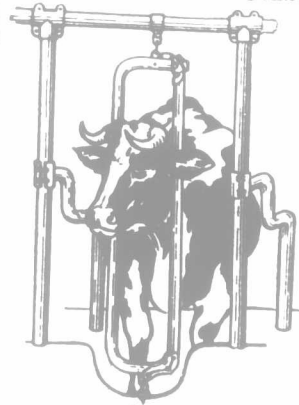
No matter what position you expect to fill, or what line of work you intend to follow, it will help you:

1. To understand business methods and systems.
2. To be able to make accurate calculations.
3. To write a rapid, legible, business hand.
4. To compose a concise and effective business letter.
5. To know what is the law regarding commercial transactions and everyday affairs.

All this business knowledge you get from our Complete Commercial Course. We teach you anywhere, in your spare time. Full outfit of books and supplies free with course. Write for full information to-day.

CANADIAN CORRESPONDENCE COLLEGE, LIMITED, Dept. E, Toronto, Canada.

Why Not Put "BT" Stanchions In Your Stable?



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

"BT" Stanchions

BEATTY BROS., FERGUSON, ONT.
 HAY CARRIERS, LITTER CARRIERS ETC.

"SAVE THE HORSE" SPAVIN CURE.



Don't forget, Mr. Man, no matter what your case is, an investment in "Save-The-Horse" means! You simply cannot lose if you go at it right.

OUR CONTRACT PROTECTS YOU.

STAPLES & SONS, Tailors, Richmond, Va., Nov. 20, 1909. TROY CHEMICAL CO., Binghamton, N. Y.: I used "Save-The-Horse" as you directed on the place where the horse was kicked and he recovered entirely from lameness. A week after doctor examined him and he said he had a blind jack. As I had some "Save-The-Horse" left he advised me to use it, which I did, and he is perfectly sound. This jack came on the leg that other leg some time ago. I have had tough luck with this horse, but your remedy has always given him a cure. I thank you for your kindness, always willing to give advice, and I shall always recommend "Save-The-Horse" highly. NATHAN SIMON, Norway, Me., Oct. 19, 1909.

TROY CHEMICAL CO., Binghamton, N. Y.: I have a horse, etc. I have seen four cures, one leg spavin, and one enlarged tendon cured by it for other people. Please let me hear from you regarding my horse. Very resp., A. H. STAPLES, D. D. S.

\$5.00 a bottle, with signed guarantee or contract. Send for copy, booklet and letters from business men and trainers on every kind of case. Permanently cures Spavin, Hook, Windpuff, Shoe Ball, Injured Tendons & all Lameness. No prior loss of hair. Horse works as usual. Dealers or Exp. sent TROY CHEMICAL CO., 148 Van Horn St., Toronto, Ont., and Binghamton, N. Y.

Teacher—"If you wear one pair of shoes three months, how long will two pairs last?"

Jimmie—"A year."

Teacher—"Oh, no, how do you get that?"

Jimmie—"I don't wear any in the summer."—Judge.

GOSSIP.

An establishment that is creating some interest in Leeds County and the vicinity is Avondale Farm, the new establishment of Arthur C. Hardy, of Brockville. The property was acquired by Mr. Hardy a year ago, and building began the first of June last, since which time a complete set of farm buildings have been erected. The farm, which is on the main road, and about two miles west of Brockville, comprises almost a square block of about one hundred and fifteen acres, all cleared, except five acres. Last fall, Mr. Hardy purchased an additional clear block of forty acres lying alongside, and fifty acres on the opposite side of the road, composed of meadow, orchard and worked land. The new buildings consist of new main barn, which is a plank-frame structure, 70 by 45, and 50 feet high, having a stone basement. An L to the west, 50 by 37, with large storage-room above, forms the cow-barn. Other buildings completed are hog pen and henhouse, each 40 feet in length, drive-house, manager's house, and another dwelling, the whole making a very complete and compact set of buildings. They are all equipped with every convenience. The south end of basement of the main barn forms the horse stables, with accommodation for nine horses; the north end contains feed-room, and is divided by a tight brick wall, behind which is the dairy and ice-house. A boiler-house is situated alongside barn, and the engine there runs the dairy plant, consisting of a full creamery plant, with steam pipes for sterilizing. All buildings have concrete floors, and running water supplied from a rock well, and distributed by compressed-air tank situated in dairy. The barns are equipped with Beatty litter and feed carriers; the track runs out of the doors on a continued track, and the litter is carried to a wagon, where, after being dumped, it is taken every day to the fields, thus insuring all freedom from odors, etc. The yard formed by the L of the main barns has a southern exposure, and has been concreted. The barns and stables have from 8½ to 9 feet head room, and are all sealed with matched stuff for the sake of cleanliness. Ample lighting facilities are given, and, in fact, every precaution has been taken in all parts to insure the most sanitary conditions under all circumstances. This includes, of course, an elaborate ventilating system, part of which is on the King and part on the Rutherford system, not all of which is as yet completed. Of the first block of land purchased by Mr. Hardy, consisting of about one hundred and ten acres, nearly the whole was drained by tile drainage, according to plans supplied by the expert from the Ontario Agricultural College, and, although it was not finished until late in the autumn, has already given evidence of what it can do. Avondale farm was established for the breeding of Holsteins, and the foundation of a good herd has already been laid. At the head of the herd is a two-year-old bull, Prince Hengerveld Peitje, whose sire is Peitje 22nd's Woodcrest Lad, a great bull belonging to the Woodcrest farm at Rifton, N. Y., his dam being Peitje 22nd, an imported cow, with a record of 31.62 pounds. Prince Hengerveld Peitje's dam, Princess Hengerveld De Kol, a daughter of the Hengerveld De Kol. She, at 23 months of age, made 20.23 pounds of butter, with an average of 4.23 per cent. of fat; her dam being Princess Johanna Rue, with 23.76 pounds at four years of age to her credit, with an average fat at 4.47. She was sired by Johanna Rue 3rd's Lad. It is not necessary to say anything more about the breeding of Mr. Hardy's young bull, as these names form a record for themselves. The first test carried on at Avondale farm has just been completed, and is headed by Mutual Friend Dione, a four-year-old, with 23.063 pounds of butter to her credit. This heifer is to be used as one of Avondale farm's foundation cows, and is a beautiful specimen of the typical Holstein. Another test just finished is that of Lady Woodcrest Paxton, a daughter of the Homestead Girl—Sarcastic Lad, which made at this test 19.94 pounds in the seven days. This cow is an exceptionally large animal. Two other two-year-olds made, respectively, a heifer, over 12 and 13 pounds of

They Pass the British Government's Acid Test for Galvanizing

Do you know that PRESTON Safe-Lock Shingles are the ONLY kind you can buy that are made according to British Government Specifications for Galvanized Sheet Metal?

The British Government is the most particular buyer in the world. The sheet metal it buys for public works must be made and galvanized far better than ordinary sheet metal.

Each sheet must be carefully sheared to exact dimensions, thoroughly cleaned, and afterwards galvanized with best Virgin Spelter, which must consist of not less than 98 per cent. pure zinc—Extract from British Government Specifications.

Each steel sheet is cut to the exact size of a PRESTON Shingle before it is galvanized with 98 per cent. pure zinc. In this way even the edges are thoroughly galvanized.

The sheets must be heavily and uniformly coated with zinc.—Ex. from B. G. S.

Ordinary galvanized sheets are not nearly so heavily coated with zinc as those galvanized according to British Government Specifications. To secure a thin coating the spelter is heated to a very high temperature. When the steel sheets are dipped into it only a small portion adheres to the surface.

Your eye cannot tell a thinly coated sheet from one heavily coated. That is why there are such a lot of cheap steel sheets on the market. They are considered good enough for ordinary shingles. But they couldn't pass the rigid specifications required of the steel sheets we use for PRESTON Shingles.

The steel sheets for PRESTON Safe-Lock Shingles are dipped into spelter kept at a lower and correct temperature. The sheets thus become very heavily coated. And, the coating is made perfectly smooth and even.

The sheets must stand bending without cracking the galvanizing.—Ex. from B. G. S.

Unless the steel sheets for PRESTON Shingles were of perfect quality and galvanized according to British Government Specifications not only would the galvanizing crack, but the metal also, where our top lock is folded to produce three thicknesses of metal. Look at a PRESTON Safe-Lock Shingle and you'll find the steel and the galvanizing perfect at our top lock as well as everywhere else on the shingle.

THE ACID TEST

The galvanizing must be able to stand the test of dipping the sheet into a solution of sulphate of copper at a temperature of 60 degrees Fahrenheit, allowing it to remain in the solution for the space of one minute, and then withdrawing it and wiping it clean. The galvanizing must allow of this being done FOUR times without

This Acid Test is more severe on the galvanizing than twenty years of Canadian weather. You see, sheet steel galvanized according to British Government Specifications is galvanized to last. PRESTON Shingles are good for twice the service of ordinary galvanized shingles.

The construction of PRESTON Safe-Lock Shingles is far ahead of all others.

Other shingles merely slip or slide together at the sides and are easily pulled apart. PRESTON Shingles are securely locked together at the sides on the principle of the "sailor's grip." The heavier the strain, the firmer the grip. You cannot pull them apart.

The top lock of PRESTON Shingles is TWICE as strong as our wonderfully secure side lock.

The top of the shingle is where the greatest strain falls. PRESTON Safe-Lock Shingles have a top lock consisting of three thicknesses of sheet steel, so that they can easily withstand the strain due to shrinking of sheeting or settling of building.

No other shingles can have such a top lock, because this feature is patented by us. The top lock of most shingles isn't as strong as the side lock of ours.

Lightning causes the loss of thousands of dollars each year to Canadian farmers. With every PRESTON roof you get a FREE Lightning Guarantee which secures you against this terrible destroyer.

You do not get a Free Lightning Guarantee with other shingles. Neither do you get shingles safe-locked on all four sides. Nor shingles with the nailing fully protected against the weather. Nor shingles made according to British Government Specifications. Nor shingles so easy to lay.

We have just issued a new booklet "Truth About Roofing." We should charge something for this, as it contains information of real value to anyone who has a building to roof. But we will send it FREE as a reward to all who cut out, fill in and mail the coupon to us. Just you send it to-day.

METAL SHINGLE AND SIDING CO., LIMITED

Head Office, Queen Street Factory, PRESTON, ONT.
Branch Office and Factory, Montreal, Que.



showing signs of a reddish deposit of Copper.—Ex. from B. G. S.

The reddish deposit shows up the thinly galvanized spots. Ordinary galvanized sheets, treated to this test, would be thickly spotted with reddish deposits. Yet you are asked to pay the same prices for shingles that cannot pass this test as you are for PRESTON shingles, which will easily do so.

PRESTON SAFE-LOCK SHINGLES

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

Name _____
P.O. Address _____
County _____ Prov. _____

4% Invest Your Money Safely at 4%

Think twice before you risk your hard-earned savings in mining or speculative stocks. Better be safe than sorry. Our 4% Debentures are an absolutely safe investment. Interest half-yearly. \$2,000,000 assets as security.

AGRICULTURAL SAVINGS & LOAN CO., 109 DUNDAS STREET, LONDON, ONT.

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.

For Sale: 100,000 Apple Trees
75,000 Pears, Plums, Cherries. Complete assortment of other stock. Guaranteed first grade and TRUE TO NAME. Agents wanted immediately where we are not now represented.


THOS. W. BOWMAN & SON CO., LIMITED
Ontario

Glen Maple Aberdeen - Angus
Young males and females for sale.

E. A. & G. S. McIntosh, Seaforth, Ont.
Box 338.

When Writing Mention The Advocate

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UR SPRAY.
which has made
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Ask us how to
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ERGUS, ONT.
CARRIERS ETC.
SPAVIN CURE.
SOUND
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ECTS YOU.
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THE ENTIRE HERD OF
"Sunny Acres"
SHORTHORNS
The property of WM. CHANNON & SON,
will be sold by auction on

Wednesday, February 16, 1910
AT SUNNY ACRES FARM, SITUATED THREE MILES EAST OF
OAKWOOD, AND FIVE MILES WEST OF LINDSAY.

Conveyances will meet the morning trains from east and west at Mariposa Stn., G. T. R., on morning of sale. Morning train from north will be met at Cambray Stn., G. T. R. The herd consists of several popular families and individuals of high-class type and quality. They have been winners at the local shows, and some of them, if fitted, would make good material for any show. Three-fourths of the number are eligible for American registration. Write for catalogue, and remember the date—1.30 sharp, Wednesday, February 16th. Terms: Cash, or twelve months' time on satisfactory notes bearing 5 per cent. per annum.

GEO. JACKSON,
AUCTIONEER.

Wm. Channon & Son,
Oakwood,
Ontario.

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.

J. A. Caskey, Madoc, Ont.

ONTARIO DEPARTMENT OF AGRICULTURE
PROVINCIAL AUCTION SALE
OF REGISTERED
Shorthorn and Hereford Cattle
(Males and Females)
WILL BE HELD AT GUELPH ON
Wednesday, March 2nd, 1910
Under the management of the GUELPH FAT-STOCK CLUB.
All stock inspected. Only good representatives offered. Many of the most fashionable Scotch families will be represented.
Freight on animals purchased by residents of Ontario and shipped to points in Ontario will be paid.
For catalogues and further particulars, apply to

W. R. ELLIOTT,
President.

J. M. DUFF, Secretary,
Guelph, Ontario.

JOINT AUCTION SALE
OF
Shorthorn Cattle
From the herds of R. & S. NICHOLSON, Sylvan, and H. K. FAIRBAIRN, Thedford, at "Elmdale,"
5 miles south-west of the town of Parkhill, and 1 1/2 miles east of the village of Sylvan, on
Tuesday, March 1st, 1910, at 1 p.m.
Consisting of 9 yearling bulls and 15 females. The bulls are nearly all sired by imp. bulls, and some from imp. females. They represent the best Scotch families, and are as well bred as the best. Individually they are a good lot. Teams will meet trains at Parkhill the evening before and morning of sale, and return for evening trains after the sale.
TERMS: Nine months' credit. Lunch at noon. Catalogues sent on application.

CAPT. T. E. ROBSON,
Auctioneer.

STEPHEN NICHOLSON, Sec.
Sylvan, Ont.

Please Mention this Paper.

GOSSIP.

(Continued from page 233.)

butter. Avondale farm has sixteen matured head besides these, nearly all of them in the Advanced Registry or Record of Merit, besides half a dozen calves of exceptional breeding, all of which it is intended to keep until they are able to be tested. Of these, three are sired by thirty-pound bulls, and two by twenty-four and twenty-six each, so more good stock is looked for. While the dairy side of the work is to be the chief feature of Avondale farm, general farming is to be carried on, and a small flock of Horned Dorsets is already being assembled, while there is a fair-sized herd of Yorkshire swine coming on. At a later date, Mr. Hardy hopes to put in a few registered Clydesdales, but, as the farm is largely a matter of experiment, this will not be done until other branches are thoroughly satisfactory. While it is not intended at present that operations shall be carried on at Avondale farm on a large scale, it is intended that only first-class stock shall be raised, and in the cattle end of business that it will be exceptionally good, and will take its place amongst the very best herds in this country.

On March 1st, as advertised in this issue, R. & S. Nicholson, Sylvan, and H. K. Fairbairn, Thedford, will sell by auction, at Elmdale, about thirty head of Shorthorns. Amongst the bulls (all yearlings) is Rosalind's Prince, sired by Royal Prince =31241=, the sire of the sensational heifers, Fair Queen and Queen's Ideal, the former three times grand champion female at Chicago, the latter winning three firsts and one grand championship at Toronto. In 1905, for three animals, the get of one sire, at Toronto, the first prize was awarded to the get of Royal Prince. For two animals, the produce of one cow, the first prize at the same place was awarded to the get of the same bull. Rosalind's Prince is an extra-good bull. He was awarded second at London last fall, being then only a few days over age for a calf. Another good one is Golden Knight, got by Royal Prince, dam Golden Queen, by Imp. Scotchman =40420=. This is an uncommonly well-bred Golden Drop, descended from Imp. Bloom 1st, a son of Imp. Lady Bell Hope (Wimple), and sired by Imp. Merry Hampton; is good enough for anybody. He is smooth, richly covered with flesh, and shows his breeding. Another good one is Merry Prince, by Merry Hampton, and out of Imp. Beautiful 6th. This one will please the most fastidious. Amongst the females are two granddaughters of Imp. Pineapple 6th, imported by H. Cargill & Son. The two top crosses are Imp. Chief of Stars, and Spicy Count (imp.). These are two extra-good heifers. Three Nonpareils, as well bred as any in any country, are also in the sale. Another outstanding heifer is Julia's Gem, by Royal Prince, second prize at London, 1906, same families as the heifers, Queen Ideal and Fair Queen, but we cannot particularize. The proprietors assure us that there is the stuff in the lot for laying the foundation of first-class herds, and better cannot be purchased anywhere.

The Clydesdale filly, Queen Minnie, winner of first at Canadian National, 1909, and owned by Smith & Richardson, Columbus, Ont., has recently been sold to Senator Douglas, Tantallon, Sask.

TRADE TOPIC.

TAXIDERMIC.—Every hunter, fisherman, or naturalist, should know how to stuff and mount birds and animals. This knowledge soon fills one's home or den with very valuable trophies. Taxidermy is taught by mail successfully by the N. W. School of Taxidermy, 900 Elwood Building, Omaha, Neb. It may be learned during one's spare hours, and by the new methods used in teaching, it can be learned in a very short time. Success is guaranteed by this school, or no tuition is charged. Many times, a single mounted trophy will more than pay for the entire course. This school will send you a beautiful book on "How to Learn to Mount Birds and Animals," absolutely free. Just mention the name of this paper when you write.

No Lame Horses

If You Will Use

Tuttle's Elixir



Don't neglect the lame or blemished leg. Or don't give up because other things have failed. When you stop to think that there are hundreds of thousands of horses that have been made sound and are kept sound, kept at their hard work day in and day out—thanks to Tuttle's Elixir—then you will realize that it's time you tried it, too. Let us prove to you that it

CURES

Curb, Splints, Spavin Lameness, Ringbone, Knotted Cords, Cockle Joints, Sprains, Bony Growths, Swellings, Shoe Bolls and Founder, Distemper and Colic

It never fails to locate lameness, and the thousands who have tried it will tell you that it makes the finest leg and body wash they ever used. Send for the proofs. We want you to know also of the remarkable curative powers of Tuttle's Worm Powders, Tuttle's Condition Powders, and Tuttle's Hoof Ointment. Your dealer sells Tuttle's remedies. If not, send us his name and 50c. in stamps and we will send a large size bottle prepaid. Don't experiment. Get Tuttle's and be sure.

FREE "Veterinary Experience," a 100-page book of valuable information to every horse owner. Enables you to be your own veterinary. Write for it to-day, enclosing 2 cents for postage.

TUTTLE'S ELIXIR CO., 205 Beverly St., Boston, Mass.

Second Dispersion Sale

OF

HOLSTEINS

At CLOVER DELL STOCK

FARM, BOSTON, ONT., on

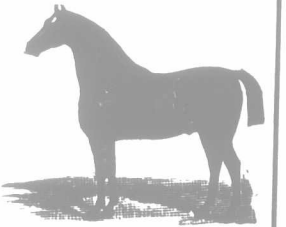
Wednesday, March 9th, 1910

Commencing at one o'clock

MESSRS. NELLES & WOODLEY, Boston, Ont., will hold their second dispersion sale of purebred and high-grade Holstein cows and young stock, numbering about 35 head. The combined herd for the past two seasons at 90 cts. per 100 lbs. milk have averaged \$75.30 per cow for season. The two stock bulls, Paul DeKol Canary King (imp.) and Today 2nd Merceca Posch, will also be included in the sale. Terms—\$25.00 and under, cash; over that amount 8 months' credit on bankable paper; 6% per annum off for cash on all sums entitled to credit. Trains will be met at Waterford on morning of sale. Lunch at noon. For further particulars write: NELLES & WOODLEY, Boston, Ontario. JAS. DUNLOP, Auctioneer.

Dr. Page's English Spavin Cure

For the cure of Spavins, Ringbone, Curbs, Splints, Windgalls, Capped Hock, Strains or Bruises, Thick Neck from Distemper, Ringworm on Cattle, and to remove all unnatural enlargements.



This preparation (unlike others) acts by absorbing rather than blistering. This is the only preparation in the world guaranteed to kill a Ringbone or any Spavin or money refunded, and will not kill the hair. Manufactured by Dr. Frederick A. Page & Son, 7 and 9 Yorkshire Road, London, E. C. Mailed to any address upon receipt of price, \$1.00. Canadian agents:

J. A. JOHNSTON & CO., Druggists, 171 King St., E. TORONTO, ONT.

Seldom See

a big knee like this, but your horse may have a bunch or bruise on his Ankle, Hock, Stifle, Knee or Throat.

ABSORBINE

will clean them off without laying the horse up. No blister, no hair gone. \$2.00 per bottle, delivered. Book \$ D free. ABSORBINE, J.E., for manking, etc. Removes Painful Swellings, Enlarged Glands, Gout, Wens, Bruises, Varicose Veins, Variococles, Old Sores, Ailays Pain. Book free. W. F. YOUNG, P.D.F., 258 Temple St., Springfield, Mass. LYMAN'S Ltd., Montreal, Canadian Agents.

STONE AND STUMP PULLERS

Can raise, carry stones, and easily put them into wall four and a half feet high. Also

NEW PATENT SNOW PLOW, so constructed as to be able to dig roads when necessary, and to plow and sink them when snow is melting. For full particulars write: A. LEMIRE, WOTTON, QUEBEC.

Use the Horses



Use the Horses...
name or...
't give...
to have...
to think that there are...
horses that have been...
kept at their hard work...
thanks to Tuttle's...
time you tried it, too.

RES

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Beverly St., Boston, Mass.

Dispersion Sale

TEINS

WELL STOCK...
ON. ONT., on...
arch 9th, 1910...
at one o'clock

WOODLEY, Boston...
dispersion sale of pure...
in cows and young stock...
The combined herd for...
cts. per 100 lbs. milk have...
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King (imp.) and Today...
to be included in the sale...
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Boston, Ontario.

English Cure

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TORONTO, ONT.

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TON, QUEBEC.



THIS IS A REAR VIEW OF THE Humane Horse Collar

SOMETHING no thoughtful farmer can afford to be without at least ONE, if he owns one pair of horses, or TWO if he owns more. Now, why? you ask. FIRST, because owing to the high price of horses, and all products raised on the farm this year, above all others. It is absolutely essential from a monetary standpoint that the horse should be kept well and busy. THE HUMANE COLLAR is the only one made to-day that is guaranteed to do this. If your horse should be idle for one day, it will more than pay for the collar, but when he gets sore shoulders it takes more than one day to cure him.

SOLD BY OVER 5,000 HARNESS DEALERS.

Over 60,000 sold in the U. S. last season. The Humane Horse Collar has 40 square inches of pulling surface to 10 inches on the old-style collar. The pulling is all done where the shoulder is the strongest, and where it is best protected by heavy layers of muscles. NO grinding from one shoulder to the other. NO pressure on top of the neck. NO hot sweat pads to chafe the horse. NO choking on going up hill. No sweened horses, and NO sore shoulders or necks with THE HUMANE HORSE COLLAR.

It is adjustable to any horse from 16 to 26 inches, and is put out on 15 days' free trial; if not entirely satisfactory your money cheerfully refunded. Write to-day for free catalogue describing and giving testimonials, then order one from your dealer for the spring work. If he cannot supply you, order direct from us. Address:

The Whipple Horse Collar Co., Limited, HAMILTON, CANADA.

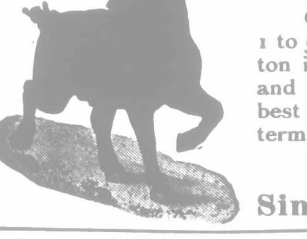
22 Imp. Clydesdale Stallions



Just landed, ages from 2 to 5 years old. A number of them are premium horses. Several are over the ton, or will make it. A number of them are grandsons of Baron's Pride. All are for sale. Prices are reasonable. Intending purchasers will find it to their interest to see these horses before purchasing. Farm two miles from the end of street-car line.

O. SORBY, Guelph, Ont.
Long-distance 'phone.

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.



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 specialty. **HERBERT SMITH, Manager.** (Late Grand's Repository.)

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.**

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 OUFFNSVILLE, ONTARIO**

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

GOSSIP.

John Racey, Lennoxville, Que., invites the attention of our readers to his advertisement of the young Shorthorn bulls he is offering, sired by Golden Crescent =72325=. They are a well-built, handsome lot, of good type and quality. One, particularly nice, between nine and ten months old, out of Begonia, by Strathroy =9305=, should go to someone requiring a herd-header. The white calf mentioned in advertisement is one of the best; is also out of a Strathroy cow, being by a red bull and out of a roan cow. It may be considered reasonably certain that his stock will come of good color.

STONEHOUSE AYRSHIRES.

Hector Gordon, of Howick, Que., owner of the well-known Stonehouse herd of imported Ayrshire cattle, whose reputation as a high-class herd of show animals and profitable producers is second to none in the country, is now offering eight young bulls, four of which are yearlings, and four calves, a rare nice lot, bred most richly, and very desirable as herd-headers. Also a number of two- and three-year-old heifers, most of them in milk, of a kind that will increase the bank account of their fortunate purchasers. Write Mr. Gordon for prices, as this class of stuff is all too scarce in the country.

TROUT RUN AYRSHIRES.

For seventeen years the Trout Run herd of Ayrshires have been bred on that now noted farm without a break, the property of Wm. Thorn, of Lynedoch, Ont., whose energies during all these years have been centered on the improvement of the producing qualities of his herd. Through a careful and systematic daily weighing of each cow's milk, and a vigorous weeding-out process of all not reaching a profitable standard, his herd to-day are a splendid example of what can be done along those lines, totaling 40 head, several of which are imported, 12 others imported in dam, nearly all the others with imported sire and dam. Forty-five pounds a day for developed cows is Mr. Thorn's standard, and is reached in nearly every case. Snowdrop of Montebello is one of the great cows of the country; she has reached 65 lbs. in one day. White Flos is another wonderful type of the great producers; she has reached 56 lbs. that tested 4.6 per cent. At the head of this great herd is Imp. Oldhouse Pilot, who has to his credit as winnings, second at Toronto and first at London as a yearling, his get being exceptionally uniform and true to type. On hand, for sale, are three young bulls, one of them out of a 45-lbs.-a-day imported cow, and all by the stock bull. Mr. Thorn is also offering several of various ages, that are now in milk, as well of a number of heifer calves; a most desirable lot, to either strengthen or found a herd. He has also for sale about 20 Toulouse geese, of both sexes.

TRADE TOPIC.

BUYING WIRE FENCE.—The great enemy to long life in a wire fence is rust. Examine some fences, and you'll find that in most cases rust is the cause of break-downs. The galvanizing on a wire fence should protect it from rust. It will do it if it is the right kind of galvanizing. The Banwell Hoxie Wire Fence Co., Ltd., makers of Peerless Fence, believe that their fence will last longer than any other fence made. They believe this because they have put the wire to the most severe tests, and it has stood them all. In fact, they are so confident that the galvanizing on the Peerless Fence will protect it from rust and corrosion that they are willing to send anyone interested a sample of their wire, and a simple formula for testing it. Anyone thinking of buying a fence should write the Banwell Hoxie Co., Limited, at Hamilton, Ont., and get this formula, then they can know if the fence is going to wear before they buy.

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CAUSTIC BALSAM.
A safe, speedy and positive cure. The safest, Best BLISTER ever used. Removes all branches from Horses. Impossible to produce scar or blemish. Send for descriptive circulars.
THE LAWRENCE-WILLIAMS CO., Toronto, Can.

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

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Don't Have a Blind One

Wonderful Discovery "VISIO"



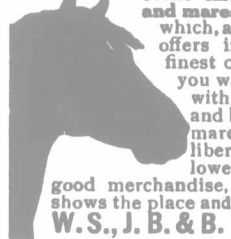
MOON BLINDNESS and all Diseases of the Eye successfully treated with this NEW REMEDY. **Money Back** if it fails to cure. \$2.00 per bottle postpaid on receipt of price. **Visio Remedy Ass'n, Dept. S, 1533 Wabash Av., Chicago, Ill.**

Clydesdales and Percherons



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

DUNHAMS' PERCHERONS



Next large importation stallions and mares here **FEBRUARY 10th**, which, added to our present stock, offers 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.**

NOTICE TO HORSE IMPORTERS

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

For Sale: REGISTERED HACKNEY STALLION, COCK ROBIN.

Three years old; 15 1/4 hands; chestnut hind feet white. Sire Commodore 3-d, imp., (6695), by Chocolate Jr. (4185). Dam Ada Adair (411), by Robin Adair 2nd, imp., (3907). For description, terms, etc., address: **G. W. CLFMOYS, ST. GEORGE, ONT.**

Ponies and Driving Horses!

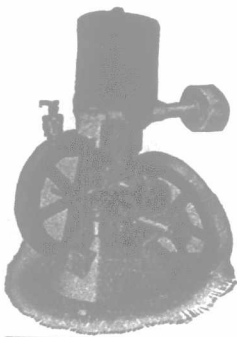
PRESENT OFFERING: 14 PONIES 10 TO 13 HANDS. All guaranteed sound and reliable. Also a few choice young driving horses 15 1/4 to 15 3/4 hands. Matched pairs or single. Sound and gentle. Reasonable in price. **E. DYMENT COPETOWN, ONTARIO.**

FOR SALE: Imp. Percheron Stallion

Dark brown. Six years old. Weight, 1,850 lbs. Quiet, sound and sure. Easy terms. **H. D. STANTON, THAMPSVILLE, ONT.**

For Sale: CANADIAN-BRED CLYDESDALE STALLION, PRINCE GARTLY.

Foaled in June, 1907. Color seal brown, with white points. Sire Prince of London, by Baron's Pride; dam by Woodend Gartly. **LEE BROS., GALT, ONT.**



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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, Proprietor. GEO. JACKSON, Auctioneer.

CLYDESDALES AND FRENCH COACHERS

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

R. NESS & SON, HOWICK, QUEBEC.

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.

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.

HIGH-CLASS French Coach, Hackney and Clydesdale Stallions.

HENRY M. DOUGLAS, Box 48, Stayner, Ont.

Clydesdales Home from the Shows

Intending purchasers would do well to see them before buying. Prices moderate. Myrtle, C. P. R. Brooklin, G. T. R. SMITH & RICHARDSON, Columbus, Ont.

ORMSBY GRANGE STOCK FARM, Ormstown, P.O.

DUNCAN McBRACHAN, F. R. C. V. S., D. V. S., Proprietor.
Importer and breeder of high-class pure-bred Clydesdales. Farmers or ranchmen starting breeding Clydesdale, pure or grade, specially invited to correspond.

Clydesdales, Percherons and French Coachers

My 1909 importation of Clydesdale stallions and fillies, Percheron stallions and fillies, French Coach and Hackney stallions are now in my stables. In this lot I can supply the most exacting. Size, style, character, quality and breeding. Will sell on terms to suit. Phone connection. T. D. ELLIOTT, BOLTON, ONTARIO.

Imported Clydesdales

My new importation of Clydesdale stallions for 1910 have arrived. They were selected to comply with the Canadian standard, combining 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.

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. Hedrickson & Tisdale, Beaverton, Ont. G. T. R. and C. N. R.

High-class Imported Clydesdales!

I have lately landed at my stables at Milverton, Ont., an exceptionally choice selection of Clydesdales—stallions and fillies. They are all prizewinners at the leading shows in Scotland. From one to five years of age. Full of quality and royally bred. Jno. Semple, Milverton, Ont.

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.

H. SMITH, EXETER, ONTARIO. Scotch Shorthorns

Extra choice young bulls and heifers for sale. Write for what you want. Farm adjoins town.

SALEM SHORTHORNS!

Young bulls and heifers, sired by the great show and breeding bull, Jit Victor (imp.), at J. A. WATT, SALEM, Ont. Long-distance Telephone.

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.

QUESTIONS AND ANSWERS. Veterinary.

LUMP ON LEG.

Mare has a lump on hind cannon, about an inch below the seat of spavin. It has been present for six months. She was lame at first, but goes sound now.

A. B.

Ans.—This is doubtless the result of a wounding of the bone and its fibrous coverings. It is not probable you can remove it, but it may be reduced some by repeated blistering. Blister with two drams biniodide of mercury, mixed with one ounce vaseline.

LICE—LAME IN FETLOCK.

1. Young cattle have lice.
2. Horse is lame in fetlock joint, the result of a sprain. I blistered once without success.

M. B. S.

Ans.—1. Dress thoroughly every third day as long as necessary with creolin, kresol or zenoleum, 1 part to 20 parts warm water. In some cases it is necessary to clip the cattle, but if that is done in cold weather they must be kept in very comfortable quarters.
2. If repeated blistering and rest fails to effect a cure you must get your veterinarian to fire the part.

GOSSIP.

Official records of 157 Holstein-Friesian cows were accepted by the American Holstein Association, from December 19th, 1909, to January 3rd, 1910. This herd of 157 animals, of which one-third were full-aged cows, produced in seven consecutive days 63,251.5 lbs. of milk, containing 2,185.581 lbs. of butter-fat; thus showing an average of 3.46 per cent. fat. Each animal produced an average of 402.9 lbs. milk, containing 13.921 lbs. butter-fat; equivalent to 57.6 lbs. or nearly 28 quarts of milk per day, and 16½ lbs. of the best commercial butter per week. It will be seen from these averages that Holstein-Friesian owners do not claim that their cows produce milk containing a high per cent. of fat; but they do claim that, owing to the very large quantity of well-balanced milk produced, no breed, no matter how high its average per cent. fat, can equal the Holstein-Friesian breed in butter production.

HILLCREST AYRSHIRES.

In Dereham Township, Oxford County, Ont., lies Hillcrest Stock Farm, the property of Frank Harris, breeder of high-producing Ayrshire cattle. The herd at present numbers fifty-one head, and is headed by the richly-bred stock bull, Lochnagar—21800—, by Full Bloom of Hunsward—16936—(imp.), dam Fairy Queen of Barcheskie—11078—(imp.). He is an ideal type of the breed, and a prizewinner. The cows are practically all young, a number of them are in the Record of Performance test, the others being entered in test as fast as they freshen. Among those under test may be mentioned the two-year-old heifer Prima Donna—24434—, by Lessnessock; Royal Star—16872—(imp.), with over 7,000 lbs. milk to her credit in ten months; also White-legged Kirsty—21958—, by Scotty—19718—, whose dam gave in ten months, 12,733 lbs., is now three years old, and has over 7,000 lbs. to her credit in seven months. Then might be mentioned Lassie of Highlands—21491—, four years old, with over 9,300 lbs. in 350 days, averaging 4.5 per cent. butter-fat. Many others might also be mentioned, but space at present will not permit. These are a sample of the kind that compose this splendid herd. The proprietor believes in performance rather than prize tickets, but endeavors to combine quality with utility. Among the young things are several bull calves of excellent quality, and whose dams are giving at present about 40 lbs. milk per day at three years old. For sale are young stock of both sexes. Write, or call on Mr. Harris, Mt. Elgin P. O. and station, on C. P. R.

Fistula and Poll Evil

Any person, however inexperienced, can readily cure either disease with Fleming's Fistula and Poll Evil Cure—even bad old cases that skilled doctors have abandoned. Easy and simple to apply; just a little attention every fifth day—and your money refunded if it ever fails. Cures most cases within thirty days, leaving the horse sound and smooth. All particulars given in Fleming's Vest-Pocket Veterinary Advice.

Write us for a free copy. Ninety-six pages, covering more than a hundred veterinary subjects. Durably bound, indexed and illustrated. FLEMING BROS., Chemists 76 Church St., Toronto, Ontario

ELM PARK ABERDEEN-ANGUS

We have some choice bulls for sale, and also females bred to Imp. Prince of Benton 58632, and Imp. Magnificent—2856—(27115).

JAMES BOWMAN, Elm Park, Guelph, Ont.

MIDDIEBROOK ABERDEEN-ANGUS. I am now offering for sale three choice young bulls; also a few females, either bred or with calf at foot to Highland grand champion Angus bull at LOWE Flora, Ont. 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, Sebringville, Ont. Long-distance Phone.

ABERDEEN - ANGUS

Will sell both sexes; fair prices. Come and see them before buying. Drumbo station.

WALTER HALL, Washington, Ont.

Aberdeen-Angus Cattle

MALES AND FEMALES FOR SALE. APPLY: Geo. Davis & Sons, Alton, Ont.

Shorthorns

FOR SALE! Several choice Canadian-bred bulls ready for service; also a good in p. two-year-old bull of the Braugh Bud family. A number of cows and heifers of different ages of right type and quality. Write or call on H. J. DAVIS, Woodstock, Ontario. Long-distance Bell phone. C. P. R. G. T. R. main lines

Willow Bank Stock Farm

SHORTHORNS AND LEICESTERS.

Herd established 1855; flock 1848. The great Duthie-bred bull, Imp. Joy of Morning—32070—, and the Missie bull, Royal Star = 72502 =, heads my herd. Choice selections to offer at all times in both bulls and females.

JAMES DOUGLAS, CALEDONIA, ONTARIO.

HAWTHORN HERD

OF DUAL-PURPOSE

Shorthorns

15 heifers, 6 bulls present offering; bred right; priced right. Come early and get a choice.

WM. GRAINGER & SON, London, 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.

GEORGE GIER, Grand Valley P. O. and station, also Waldemar station.

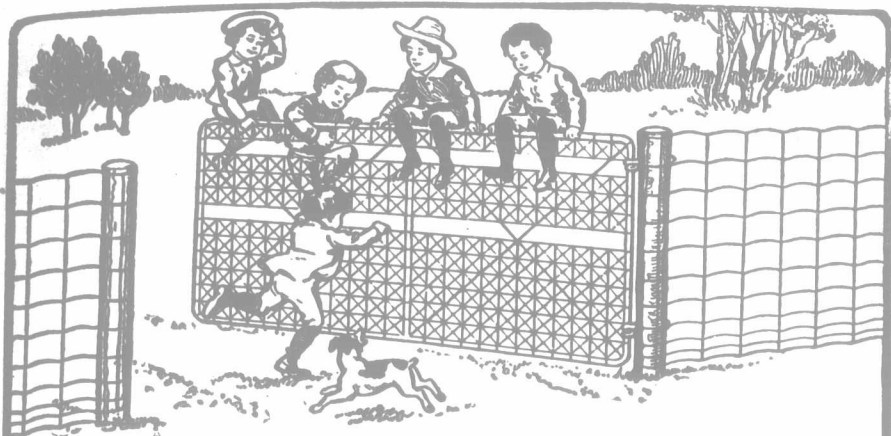
COWS GIVE MORE MILK—cattle make better beef—Bulls are no longer dangerous when dehorned with the

KEYSTONE DEHORNER. Cuts 4 sides at once—No crushing or bruising. Little pain. The only humane method. Write for free booklet. R. H. MCKENNA, 219 Robert St. Toronto, Ont. Late of Picton, Ont.

OLD MELDRUM We are offering three very SHORTHORNS! choice young bulls, old enough for service; also several extra nice heifers. All in good condition, and bred to make money. A. F. & G. AULD, Eden Mills P. O. Ont., 5 miles from Guelph.

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 Over experienced
 either disease with
Smith's
Poll Evil Cure
 that skilled doctors
 Easy and simple
 the attention every
 they refused if it
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 choice bulls for sale,
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BERDEEN-ANGUS
 good bull calves, 6 to 8
 also females, all ages
 for cattle, either sex,
 or come and see them.
 che, Sebringville, Ont.
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BERDEEN-ANGUS
 prices. Come and see
 Drumbo station.
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ANGUS CATTLE
 FOR SALE. APPLY
 ns, Alton, Ont.

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 choice Canadian-bred
 bulls ready for service;
 also a good imp. two-
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 Brawich Bud family. A
 number of cows and
 heifers of different ages
 of right type and quality.
 Write or call on
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 P.R., G.T.R. main line.

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SHORTHORNS AND
ESTERS.
 ublished 1855; flock, 1844.
 Duthie-bred bull, Imp.
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 oice selections to offer
 females.
EDONIA, ONTARIO.

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Shorthorns
 6 bulls present offer-
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SHORTHORNS
 heifers of high-class
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MORE MILK
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VE DEHORNER.
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R. H. MCKENNA
 ato of Flinton, Ont.
 offering three very
 ung bulls, old
 for service; also
 in good condition,
A. F. & G. AULD,
es from Guelph.
 This Paper.

GOSSIP.
HOLSTEIN-FRIESIAN ASSOCIATION
OFFICIAL RECORDS FOR DE-
CEMBER, 1909.

Francy 3rd (6220), at 5 years 2 months 13 days of age: 23.38 lbs. butter-fat, equivalent to 27.22 lbs. butter; 559.89 lbs. of milk. Owned by D. C. Flatt & Son, Millgrove, Ont.
 Belle Dewdrop (4083), at 8 years 1 month 20 days of age: 20.25 lbs. butter-fat, equivalent to 23.62 lbs. butter; 574.08 lbs. milk.
 Thirty-day record, 82.56 lbs. butter-fat, equivalent to 96.34 lbs. butter; milk 2,343.72 lbs. Owned by E. Laidlaw & Sons, Aylmer, Ont.
 Annie Wedo Mink Mercedes (4231), at 7 years 6 months 2 days of age: 15.93 lbs. butter-fat, equivalent to 18.59 lbs. butter; 494 lbs. milk. Owned by T. H. Dent, Woodstock, Ont.
 Colantha Queen De Kol (6819), at 7 years 7 months 9 days of age: 15.92 lbs. butter-fat, equivalent to 18.58 lbs. butter; 496.9 lbs. milk. Owned by M. L. Haley, Springfield, Ont.
 Tolena Albino Wayne (6143), at 5 years 6 days of age: 14.86 lbs. butter-fat, equivalent to 17.34 lbs. butter; 406.9 lbs. milk. Owned by Walburn Rivers, Falden's, Ont.
 Natoye De Kol 4th (10978), thirty-day record, at 5 years 9 months 8 days of age: 84.84 lbs. butter-fat, equivalent to 99.11 lbs. butter; 2,190.49 lbs. milk. Owned by J. W. Stewart, Lyn, Ont.
 Ianthe Jewel Mechthilde 3rd (5530), at 4 years 11 months 27 days of age: 17.78 lbs. butter-fat, equivalent to 20.75 lbs. butter; 458.1 lbs. milk. Owned by M. L. Haley, Springfield, Ont.
 Ellore (6959), at 4 years 2 months 3 days of age: 17.40 lbs. butter-fat, equivalent to 20.30 lbs. butter; 400.3 lbs. milk. Owned by Jas. Rettie, Norwich, Ont.
 Lina Netherland Abbecker (12158), at 4 years 11 months 20 days of age: 15.37 lbs. butter-fat, equivalent to 17.94 lbs. butter; 571.43 lbs. milk. Owned by H. Bollert, Cassel, Ont.
 Pudmina Hartog De Kol (12159), at 4 years 5 months 11 days of age: 14.68 lbs. butter-fat, equivalent to 17.13 lbs. butter; 413.8 lbs. milk. Owned by H. Bollert.
 Queen Butter Baroness (7652), at 3 years 2 months 16 days of age: 18.93 lbs. butter-fat, equivalent to 22.08 lbs. butter; 424.4 lbs. milk. Owned by M. H. Haley, Springfield, Ont.
 Annie May Schulling (8092), at 3 years 6 months 28 days of age: 13.74 lbs. butter-fat, equivalent to 16.08 lbs. butter; 389.7 lbs. milk. Owned by Frank J. Griffin, Burgessville, Ont.
 Jennie Mutual Butter Girl (7060), at 3 years 7 months 12 days of age: 13.00 lbs. butter-fat, equivalent to 15.17 lbs. butter; 462.4 lbs. milk. Owned by Thos. Davidson, Spring Valley, Ont.
 Jewel Mercena Mercedes (8047), at 3 years 2 months 29 days of age: 12.97 lbs. butter-fat, equivalent to 15.25 lbs. butter; 372.6 lbs. milk. Owned by Frank J. Griffin.
 Olive Schulling Posch (6960), at 3 years 3 months 26 days of age: 12.83 lbs. butter-fat, equivalent to 14.97 lbs. butter; 313.41 lbs. milk. Owned by James Rettie.
 Daisy De Kol Wayne (7277), at 3 years 11 months 16 days of age: 12.63 lbs. butter-fat, equivalent to 14.74 lbs. butter; 369.2 lbs. milk. Owned by Walburn Rivers.
 Calamity Posch Wayne (7177), at 3 years 11 months 19 days of age: 11.46 lbs. butter-fat, equivalent to 13.87 lbs. butter; 350.1 lbs. milk. Owned by Walburn Rivers.
 Pietertje Poem 2nd (7927), at 3 years 2 months 27 days of age: 10.98 lbs. butter-fat, equivalent to 12.82 lbs. butter; 304.86 lbs. milk. Owned by Jas. Rettie.
 Ontario Maid 2nd (7516), at 3 years 4 months 12 days of age: 10.95 lbs. butter-fat, equivalent to 12.75 lbs. butter; 354.0 lbs. milk. Owned by M. L. Haley.
 Mercena Jewel (9081), at 2 years 7 months 24 days of age: 12.82 lbs. butter-fat, equivalent to 14.96 lbs. butter; 359.79 lbs. milk. Owned by Jas. Rettie.
 Belle Dewdrop 5th (8514), at 2 years 5 months 29 days of age: 11.66 lbs. butter-fat, equivalent to 13.49 lbs. butter; 349.08 lbs. milk.
 Thirty-day record at 2 years 5 months

(Continued on next page.)

METALLIC CEILINGS

Both clean and fire-proof—no dust and dirt falling, as from plaster ceilings. Costs no more, but looks thrice as artistic. The life of a plastered or papered ceiling is short and nearly every year needs repairs. Our *Metallic Ceiling* will last as long as the house—always fresh and clean. We can send you hundreds of pretty designs to select from for both ceilings and walls.

Our beautiful free booklet tells you all about Metallic Ceilings and Walls. Send for one. Phone Park 800.
 "Really I don't know how people can stand the constant drudgery necessary to keep the ordinary ceilings and walls clean. Metallic is so clean and sanitary."—The Philosopher of Metal Town.
 MANUFACTURERS 1749
The Metallic Ceiling

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* = 65703 = 28394 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.

Geo. Amos & Sons, Moffat, Ont.

Cattle bred by us have won grand champion females, Toronto, 1907, 1908, and junior champion 1909. American grand champion 1908, grand champion, A. Y. P. E., Seattle, Wash., 1909; also won five firsts at Toronto, 1908, in groups our own breeding. For sale: several good young bulls, cows and heifers at very moderate prices for sake of room for coming calves.
Farm 11 Miles East of Guelph, C. P. R.

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 new, bred the same. Write for breeding and prices.
John Miller, Brougham P. O., Ontario.
 Claremont Stn., C. P. R., 3 miles.

1854-Maple Lodge Stock Farm-1909

Shorthorn bulls and heifers of extra quality and breeding, and from best milking strains.
 Leaders of first quality for sale. Can furnish show flocks.
A. W. SMITH, Maple Lodge P.O., Ontario.
 Lucas Crossing Sta., G. T. R., one mile.

SPRINGBROOK SHORTHORNS

For sale: 3 good bulls, 6 red and 2 roan, some sired by Royal Sovereign. Bred by the late S. Campbell, Aberdeenshire, Scotland. Most of them by Lord Gordon, bred by A. Watson, Elgin, Scotland.
J. & W. Russell, Richmond Hill, Ont.

SHORTHORNS

Choice young bulls and heifers, dark roans and reds. One white bull calf at a bargain. Dams all from a milking strain. A few Shropshire ewe lambs. Write for prices.
JOHN RACEY, Lennoxville, Que.

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.

Stoneleigh Stock Farm—For Sale: Short-

and Berkshires. Choice young things of both sexes. Write for wants, or come and see. **E. JEFFS & SON, Bond Head P.O., Ont.** Bradford Sta., G. T. R.; Beeton Sta., G. T. R. and C. P. R.

Established 1867
BY AUCTION
 ONE OF THE OLDEST-ESTABLISHED

Shorthorn Herds

In Canada, the property of **MR. ARTHUR JOHNSTON,** Greenwood, Ont., at the farm, 7th Con., Pickering Tp., on

Tuesday, March 8th, 1910



THE HERD will be found in the very nicest condition, and consisting of about 40 females, including several show-yard propositions, and 9 extra nice young bulls of breeding ages and show-yard character, including the first-class imp. three-year-old Butterfly bull—a show bull from the ground up. The tribes represented will include such well-known and fashionable families as follows: Kilblean Beauties, Cruickshank Lavenders, Duchess of Glosters, Butterflies and Villages, Marr Claras, Kinellar Nonpareils, Minas and Clarets, Bruce Mayflowers, Miss Ramsdens and Crimson Flowers, together with half a dozen high-class English milking cows and heifers imported by myself. For full particulars apply to:

ARTHUR JOHNSTON, Greenwood, Ontario.

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 ¼ mile from Burlington Jct. Sta., G. T. R. **J. F. Mitchell, Burlington, Ont.**

We are offering 15 choice young **SHORTHORN BULLS** of serviceable age. Among them are high-class herd-heads. We can supply females of all ages. Farms close to Burlington Jct., G. T. R.
W. G. PETTIT & SONS, FREEMAN, ONT.

INVERNESS SHORTHORNS I can supply Shorthorns of all ages, with richest Scotch breeding and high-class individuality.
W. H. EASTERBROOK, Freeman, Ont.

Maple Leaf Shires, Shorthorns, Hampshire Hogs 1- and 2-yr.-old Shire stallions, females from yearling fillies up; Shorthorns, both bulls and heifers; a choice lot of young Hampshire pigs, both sexes, beautifully belted.
PORTER BROS., APPLEBY P.O., BURLINGTON STA. Phone.

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.**

His Friend Said

"If They Don't Help or
Cure You I Will Stand
The Price."

Liver
Complaint
Cured.

Mr. J. B. Rusk, Orangeville, Ont., writes: "I had been troubled with Dyspepsia and Liver Complaint and tried many different remedies but obtained little or no benefit. A friend advised me to give your Laxa-Liver Pills a trial, but I told him I had tried so many 'cure alls' that I was tired paying out money for things giving me no benefit. He said, 'If they don't help, or cure you, I will stand the price.' So seeing his faith in the Pills, I bought two vials, and I was not deceived, for they were the best I ever used. They gave relief which has had a more lasting effect than any medicine I have ever used, and the beauty about them is, they are small and easy to take. I believe them to be the best medicine for Liver Trouble there is to be found."

Price 25 cents a vial or 5 for \$1.00, at all dealers, or will be sent direct by mail on receipt of price.

The T. Milburn Co., Limited, Toronto, Ont.

SHORTHORN BULLS

I have some choice young bulls, from imp. sire and dams. Good ones at reasonable rate. Come and see them. Prices right. Also some choice heifers.

J. Brydone,
MILVERTON, ONTARIO.
G. T. R. and C. P. R. Station.

SHORTHORNS One choice young Lady Fanny bull for sale—good herd header; also several young heifers. A few prizewinning Berkshires, both sexes. Write or come and see them. Prices moderate. **ISRAEL GROFF, ELMIRA, ONTARIO**

Shorthorns and Leicester. 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.**

A story is told of an Irishman named Mike Flannery, who found a valuable package belonging to a certain capitalist. He took it around to the capitalist's house and was rewarded. As he left, he met a friend.

"What's the matter Mike?" asked the friend. "Didn't he give you as much as you expected?"

"I thought he would give me more than I expected," replied Flannery, sourly.

SUFFERED FOR SIX LONG YEARS

Then Dodd's Kidney Pills Cured Mrs. Richard's Diabetes

Her Rheumatism Also Vanished When Dodd's Kidney Pills Put Her Kidneys in Condition to do Their Work.

East Chezzetcook, Halifax Co., N. S., February 7.—(Special).—Cured of Diabetes and Rheumatism from which she had suffered for six years, Mrs. Boniface Richard, well known here, is joyfully telling her neighbors that she owes her health to Dodd's Kidney Pills and to no other cause.

"My Rheumatism and Diabetes were brought on by a cold and a strain, and though I was attended by a doctor, he could not help me. After suffering for six years, I made up my mind to try Dodd's Kidney Pills, and, to my surprise, they did me good almost at once. Two boxes cured me completely. I recommend them to everybody as a sure cure for Diabetes, Backache, and all other Kidney Diseases."

Dodd's Kidney Pills cured Mrs. Richard's Diabetes, because Diabetes is a Kidney Disease, and Dodd's Kidney Pills cure all Kidney Diseases. Mrs. Richard's Rheumatism was caused by her diseased kidneys failing to take the uric acid out of her blood. When her kidneys were cured, they strained the uric acid out of her blood, and her Rheumatism vanished.

GOSSIP.

(Continued from page 237.)

29 days of age: 47.43 lbs. butter-fat, equivalent to 55.34 lbs. butter; 1,425.25 lbs. milk. Owned by E. Laidlaw & Sons.

Jossie Pauline Posch (8512), at 2 years 6 months 11 days of age: 12.52 lbs. butter-fat, equivalent to 14.61 lbs. butter; 332.99 lbs. milk.

Thirty-day record, at 2 years 6 months 11 days of age: 50.21 lbs. butter-fat, equivalent to 58.59 lbs. butter; 1,621.38 lbs. milk. Owned by E. Laidlaw & Sons.

Houwtje De Kol Lady (8513), at 2 years 6 months 3 days of age: 11.09 lbs. butter-fat, equivalent to 12.94 lbs. butter; 296.78 lbs. milk.

Thirty-day record, at 2 years 6 months 3 days of age: 45.13 lbs. butter-fat, equivalent to 52.68 lbs. butter; 1,289.54 lbs. milk. Owned by E. Laidlaw & Sons.

Lady Abbekerk De Kol (8603), at 2 years 2 months 10 days of age: 11.03 lbs. butter-fat, equivalent to 12.88 lbs. butter; 324.04 lbs. milk.

Thirty-day record, at 2 years 2 months 10 days of age: 42.13 lbs. butter-fat, equivalent to 49.16 lbs. butter; 1,223.83 lbs. milk. Owned by E. Laidlaw & Sons.

Lucy Tensen DeKol (9033), at 2 years 5 months 9 days of age: 9.74 lbs. butter-fat, equivalent to 11.37 lbs. butter; 256.5 lbs. milk. Owned by Thos. Davidson, Spring Valley, Ont.

Netherland (8467), at 2 years 2 months 23 days of age: 9.48 lbs. butter-fat, equivalent to 11.01 lbs. butter; 265.2 lbs. milk. Owned by Elias Snyder, Burgessville, Ont.

Fairmont Wayne (10571), at 2 years 7 months 5 days of age: 8.42 lbs. butter-fat, equivalent to 9.83 lbs. butter; 277.7 lbs. milk. Owned by Walburn Rivers.

Queen Abbekerk Wayne 2nd (10570), at 2 years 8 months 27 days of age: 8.27 lbs. butter-fat, equivalent to 9.65 lbs. butter; 347.4 lbs. milk. Owned by Walburn Rivers.—G. W. Clemons, Secretary.

FABLE OF THE HORSESHOE.

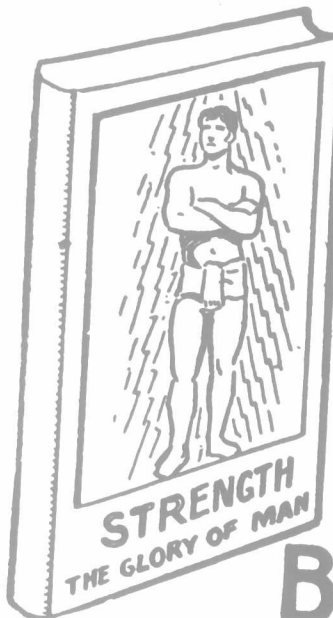
Do you know the German fable about the horseshoe? In the olden times, in a little village of Germany, a blacksmith was hard at work. The sound of the anvil attracted the attention of the devil. He saw that the smith was making horseshoes, and thought it would be a good idea to get his own hoofs shod. So the devil struck a bargain and put up his foot.

The blacksmith saw with whom he was dealing, and nailed a red-hot shoe on, driving the nails square into the devil's hoof. The devil then paid him and left; but the honest blacksmith threw the money into the fire. He knew it would bring him bad luck.

Meanwhile the devil had walked some distance, and began to suffer the greatest torture from the shoes. The more he danced and kicked and swore, the worse the things hurt him. Finally, after he had gone through the most fearful agony, he tore them off and threw them away.

From that time forward, whenever he saw a horseshoe, he would run off, anxious only to get out of the way. The German peasantry believe this story to-day, and one can scarcely find a doorstep or a barn door that hasn't a horseshoe nailed up.—Our Dumb Animals.

The vast importance of sheep to New Zealand is the subject of some interesting statements in the Auckland Weekly News. Sheep provide a money return exceeding £12,000,000 per annum, or about half the total income of the Dominion. To this amount wool contributes from £7,000,000 to £7,500,000, mutton and lamb providing about £3,800,000, and skins, pelts and tallow over £1,000,000. Although about 7,000,000 sheep and lambs are slaughtered annually, the number increases, that of 1909 having been the greatest on record, or 23,480,700. As the recent lambing season has been a very productive one, it is expected that next April's returns will show about 25,000,000 sheep.



STRENGTH
THE GLORY OF MAN

LET
ME
SEND
YOU
THESE
TWO
BOOKS



HEALTH IN NATURE

FREE

To every reader of this paper who is not well and strong I will send, on receipt of coupon below, a copy of my two books, "Health in Nature" and "Strength." These books explain in a simple and logical way what we all wish to know: What life consists of, the cause of disease, and the simple, inexpensive way of becoming well, strong and happy without the use of drugs.

If You Are Suffering

from BACKACHE, LUMBAGO, RHEUMATISM, INDIGESTION, WEAK STOMACH, KIDNEY, LIVER OR BOWEL TROUBLE, BILIOUSNESS, DYSPEPSIA, NEURALGIA, NERVOUS DEBILITY, MELANCHOLY, etc., or if you are blue and discouraged and feel that life is not worth living, you should by all means send for these two books.

Vim, Vigor, Vitality

were given to all of us, and if we have lost our strength perhaps we alone are to blame. Space will not permit me to explain my theory fully, but I cure by pouring into your body at night while sleeping a harmless, strength-giving, eight hours' flow of galvanic electricity; a powerful stream of real life, vitality, energy, nerve force, from the Dr. Sanden Herculex Electric Health Belt (improved October, 1909). 500,000 now in use. Free trial until cured. My books will explain it thoroughly. They are sent free, sealed, by mail upon request, or, if in this city, call at my office, test Belt, talk over your case. Advice free at the office or by mail.

DR. A. F. SANDEN, 140 Yonge Street,
TORONTO, ONT.
Office Hours, 9 to 6; Saturdays until 9 p.m.

NAME.....
STREET.....
CITY.....
PROVINCE.....

Maple Hill Shorthorns

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

Choice Scotch Shorthorns

Mayflowers, Lancasters, Miss Ramsdens, Stamfords and Broadhooks. High-class show heifers among them. Also a few extra good young bulls. **S. F. Johnston & Son, Ashburn P. O., Myrtle Station.**

ROWAN HILL SHORTHORNS

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

IRVINE SIDE SHORTHORNS

3 bulls fit for service; 1 fifteen months' roan from imp. sire and dam; 1 thirteen months' roan from imp. sire and dam; also 10 yearling and two-year-old heifers. Write us, or call and see us before buying. **J. WATT & SON, Salem P. O., Ont., Elora Sta.**

Ring-Bone



There is no case so old or bad that we will not guarantee Fleming's Spavin and Ringbone Paste to remove the lameness and make the horse go sound. Money refunded if it ever fails. Easy to use and one to three 45-minute applications cure. Works just as well on Sidebone and Bone Spavin. Before ordering or buying any kind of a remedy for any kind of a blemish, write for a free copy of Fleming's Vest-Pocket Veterinary Adviser. Ninety-six pages of veterinary information, with special attention to the treatment of blemishes. Durably bound, indexed and illustrated. Make a right beginning by sending for this book.

FLEMING BROS., Chemists,
14 Church St., Toronto, Ontario

PILES CURED at HOME by New Absorption Method.

If you suffer from bleeding, itching, blind or protruding Piles, send me your address, and I will tell you how to cure yourself at home by the absorption treatment; and will also send some of this home treatment free for trial, with references from your own locality if requested. Immediate relief and permanent cure assured. Send no money, but tell others of this offer. Write to-day to Mrs. M. Summers, Box 821 Windsor, 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.

HOLSTEINS AND YORKSHIRES

Young bulls for sale from such cows as Snowflake Queen De Kol of Munster, testing 4.8; Queen De Kol, 4.4, and others equally good. Cows giving 12,000 to 15,000 lbs. yearly.

RICHARD H. N. Y., Brickley Ont.
Northumberland Co.

DON'T

Buy a HOLSTEIN BULL till you get my prices on choice goods from thirteen months down, from best production strains. "Fairview Stock Farm." **FRED ARBOTT, Harrietsville Ont.**

Why does Great Britain buy its oatmeal of us?

Certainly it seems like carrying coals to Newcastle to speak of exporting oatmeal to Scotland and yet, every year the Quaker Oats Company sends hundreds of thousands of cases of Quaker Oats to Great Britain and Europe.

The reason is simple; while the English and Scotch have for centuries eaten oatmeal in quantities and with a regularity that has made them the most rugged physically, and active mentally of all people, the American has been eating oatmeal and trying all the time to improve the methods of manufacture so that he might get that desirable foreign trade.

How well he has succeeded would be seen at a glance at the export reports on Quaker Oats. This brand is recognized as without a rival in cleanliness and delicious flavor.

GOSSIP.

AYRSHIRE RECORD-OF-PERFORMANCE TEST, 1909.

During last year the Secretary of the Canadian Ayrshire Association received from the Dominion Department of Agriculture the Certificates of 29 cows and heifers that registered during 1909. This makes 70 cows and heifers that have qualified, and to whose owners certificates and diplomas have been granted. Nearly two hundred cows and heifers have been entered in this test during 1909. The following are the results of the test for 1909:

- Mature Class.**
Primrose of Tanglewyld -15945-; owner, Woodisee Bros., Rothsay, Ont.; per cent. fat 3.90; lbs. milk 13,536; lbs. fat 529.
Bertie of Springhill -8736-; owner, Robert Hunter & Sons, Maxville, Ont.; per cent. fat 3.66; lbs. milk 10,448; lbs. fat, 382.26; 321 days.
Nellie Gray of Hickory Hill -15332-; owner, N. Dymont, Clappison, Ont.; per cent. fat 4.03; lbs. milk 9,981; lbs. fat 402.88; 330 days.
Barton Princess -9273-; owner, A. S. Turner, Ryckman's Corners, Ont.; per cent. fat 4.00; lbs. milk 9,580; lbs. fat 381.35; 331 days.
Little Queen 2nd -9239-; owner, A. C. Wells & Son, Sardis, B. C.; per cent. fat 4.00; lbs. milk 9,397; lbs. fat 375.44; 310 days.
White Heather 16978; owner, James Begg, St. Thomas, Ont.; per cent. fat 3.82; lbs. milk 9,501; lbs. fat 363.50.
Nellie's Jewel -16871-; owner, James Begg, St. Thomas, Ont.; per cent. fat 4.34; lbs. milk 9,093; lbs. fat 394.60.
Neidpath Rose 3rd -10126-; owner, W. W. Ballantyne, Stratford, Ont.; per cent. fat 4.06; lbs. milk 9,037; lbs. fat 367.40; 354 days.

- Four-year-old Class.**
Snowflake of Hickory Hill -23481-; owner, N. Dymont, Clappison, Ont.; per cent. fat 3.95; lbs. milk 9,182; lbs. fat 362.41; 365 days.
Lady Menie -18727-; owner, Wm. Stewart & Son, Menie, Ont.; per cent. fat 3.72; lbs. milk 8,005; lbs. fat 297.80; 364 days.

- Three-year-old Class.**
Canadian Princess -20108-; owner, A. S. Turner, Ryckman's Corners, Ont.; per cent. fat 4.59; lbs. milk 11,377; lbs. fat 521.91; 335 days.
Shannon Bank Frances 2nd -23520-; owner, W. H. Tran, Cedar Grove, Ont.; per cent. fat 3.94; lbs. milk 9,133; lbs. fat 360.32; 361 days.
Dairy Queen of Springhill -33743-; owner, R. Hunter & Sons, Maxville, Ont.; per cent. fat 4.13; lbs. milk 8,023; lbs. fat 331.85; 328 days.


- Isaleigh Nancy 1st -20525-; owner, J. N. Greenshields, Danville, Que.; per cent. fat 3.83; lbs. milk 8,184; lbs. fat 316.16; 288 days.
Beauty of Shannon Bank -23519-; owner, W. H. Tran, Cedar Grove, Ont.; per cent. fat 4.62; lbs. milk 7,677; lbs. fat 354.47; 327 days.
Miss Orlia -20098-; owner, Gus. A. Langelier, Cap Rouge, Que.; per cent. fat 4.65; lbs. milk 7,158; lbs. fat 333.33; 365 days.

- Two-year-old Class.**
Jemima of Springbank -27689-; owner, A. S. Turner, Ryckman's Corners, Ont.; per cent. fat 4.47; lbs. milk 8,839; lbs. fat 395.33; 338 days.
Bessie 16th of Neidpath -21468-; owner, W. W. Ballantyne, Stratford, Ont.; per cent. fat 4.34; lbs. milk 7,625; lbs. fat 330.78; 358 days.
Sybella of Springbank -27691-; owner, A. S. Turner, Ryckman's Corners, Ont.; per cent. fat 4.13; lbs. milk 7,805; lbs. fat 302.24; 226 days.

- Madeline B. -23601-; owner, James Begg, St. Thomas, Ont.; per cent. fat 4.10; lbs. milk 7,135; lbs. fat 292.96; 365 days.
Ardyne Carntyne -26349-; owner, R. Hunter & Sons, Maxville, Ont.; per cent. fat 4.45; lbs. milk 7,019; lbs. fat 312.93; 365 days.
Daisy of Westland -21799-; owner, Gus. A. Langelier, Cap Rouge, Que.; per cent. fat 4.55; lbs. milk 6,950; lbs. fat 316.77; 355 days.

- Princess -23581-; owner, Woodisee

(Continued on next page.)



PROVE IT!

Don't take our word for it. Ask us to prove to you that the SELKIRK STIFF-STAY FENCE is Heavier, Stiffer, Stronger, More Secure and Serviceable than any fence you have ever seen. It is the Best and Most Economical Fence to Buy, and consequently to Sell.

FILL OUT THIS BLANK AND SEND IT TO US,
SELKIRK FENCE CO., HAMILTON, CAN.

Gentlemen, -I want to examine for myself the merits of S. S. S. Fencing and Gates. Send me a free sample piece of the fence with descriptive matter and agent's terms.

Name.....
Post Office.....Prov.....

THE SUMMER HILL HERD OF HOLSTEINS

is making some wonderful records. This year it has produced the champion Canadian-bred butter cow for 7 days' record 29.16 lbs. Also the champion 2-year-old in yearly production. We have some younger ones that promise to be just as good. We offer for quick sale ten fine heifers, all in calf to an imported bull. Come AT ONCE and make your selection. Prices are right, and everything guaranteed just as represented. Trains met at Hamilton if advised.

D. C. Flatt & Son,
Farm Phone Bell 2471, Hamilton. Millgrove, Ont.

Holsteins FOR SALE: COWS AND HEIFERS

All ages. Also bull and heifer calves, including daughter and granddaughters of Pieterje Hengerveld Count De Kol, whose TWO famous daughters made over 32 lbs. butter each in 7 days, and sire of the "world's champion milking cow," De Kol Creamella, which gave 119 lbs. in one day, over 10,000 lbs. in 100 days. Also for sale daughters of De Kol's 2nd Mutual Paul, sire of Maid Mutual De Kol, which gave over 31 lbs. butter in 7 days, also granddaughters of Hengerveld De Kol. Other leading breeds represented. Putnam station, near Ingersoll.

H. E. GEORGE, CRAMPTON, ONTARIO.

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 Mechilde Calumity, 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.

WILBURY RIVERS, FOLDEN'S, ONTARIO.

Lakeview Holsteins

Herd headed by Count Hengerveld Fayne De Kol, son of Pieterje Hengerveld's Count DeKol, who has five daughters averaging over 30 lbs. butter in 7 days, and whose dam (26.30 lbs. in 7 days) has a daughter with a record of over 35 lbs. in 7 days. Five bull calves from nine months old down from this sire for sale. G. T. R. and Hamilton Radial close to farm. Visitors met by appointment. E. F. OSLER, BRONTE, ONTARIO.

HOMWOOD DAIRY

Offers two beautiful bull calves, sired by a son of Lady Aaggie De Kol, sweepstakes winner and a four-per-cent cow. Price \$300 each. Six cows in calf to the richly-bred bull, Prince Abbekirk Mercena. Write for particulars.

M. L. & M. H. Haley, Springford, Ont.

Silver Creek Holsteins

Have official records from 17 to 22 lbs. for 4-year-olds and over, 14 lbs. butter-fat for 3-year-olds, 11 lbs. butter-fat for 2-year-olds. My stock bull has high official backing. For sale are a number of heifers and heifer calves, and 12 bulls, from 1 to 15 months of age, all sired by S. B. and out of Record cows; a high-class lot.

A. H. TEEPLE, Currie's P.O., Woodstock Sta., Phone connection.

CENTRE AND HILLVIEW Holsteins

140 head, 45 females in R. O. M. Herd headed by Brookbank Butter Baron, Bonheur Statesman and Sir Sadie Cornucopia Clothide. The average of dam, sire's dam and grandam is: milk in 7 days, 662.85 lbs.; butter in 7 days, 50.58 lbs. We have bulls born Mar., '09, to two weeks old for sale, from Record-of-Merit dams. Long-distance telephone. P. D. Ede, Oxford Centre, Ont. Woodstock Sta.

Fairview Herd

offers for sale a son of Rag Apple Koradyks. His dam is a daughter of Pontiac Koradyks, with an A. R. O. record of 15.88 lbs. butter in 7 days at two years. Price, \$150.00.

E. H. Dollar, Heuvelton, N. Y.
NEAR PRESBOTT.

Maple Glen HOLSTEINS

For sale: Two 3-year-olds, bred to a son of Brown Bros. 30-lb. cow, due to freshen next March. Netherland Johanna Mercedes, a 15.70-lb. Jr. 2-year-old, due last of December to King Fayne Segis, a son of world's champion cow. Also two bull calves, from tested dam, born last June, sired by King Fayne Segis. G. A. GILROY, Glen Buell, Ont. Long-distance phone.

High-class Holsteins

Head of herd, Pieterje Korndyke Lad. Two nearest dams average 26.09 lbs. butter in 7 days. His sire's dam, Pieterje 22nd has a record of 31.62 lbs. butter in 7 days. Present offering: 2 heifers, due in calf in April, at a bargain before Dec. 1 to make room; also 2 bull calves by Mansor Johanna DeKol, out of officially-tested cows.

WM. C. STEVENS, PHILLIPSVILLE, ONT.

AVONDALE HOLSTEINS

Offers for sale high-class Holsteins all ages. Herd headed by Prince Hengerveld Pietje, a son of Pieterje 22nd's Woodcrest Lad, out of Princess Hengerveld, a daughter of Hengerveld DeKol, with record of 20.34 lbs. butter at 23 months. We also offer some fine young Yorkshire pigs of choice breeding.

ARTHUR C. HARDY, BROCKVILLE, ONTARIO

For Sale - 7 Holstein bulls

Tamworth pigs from 2 to 6 months old. White Wyandotte cockerels and B. H. Orpington hens.

W. C. RITZ, Gully P.O., Ont. Phone connection via Cobourg.

Heart Trouble Cured.

Through one cause or another a large majority of the people are troubled with some form of heart trouble.

The system becomes run down, the heart palpitates. You have weak and dizzy spells, a smothering feeling, cold clammy hands and feet, shortness of breath, sensation of pins and needles, rush of blood to the head, etc.

Wherever there are sickly people with weak hearts Milburn's Heart and Nerve Pills will be found an effectual medicine.

Mrs. Wm. Elliott, Angus, Ont., writes: "It is with the greatest of pleasure I write you stating the benefit I have received by using Milburn's Heart and Nerve Pills."

I suffered greatly from heart trouble, weakness and smothering spells. I used a great deal of doctor's medicines but received no benefit. A friend advised me to buy a box of your pills, which I did, and soon found great relief. I highly recommend these pills to anyone suffering from heart trouble."

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

BRAMPTON JERSEYS

Canada's greatest Jersey herd offers male or female stock; imported or home-bred; show type or producers; one or a carload. 150 for sale. Phone. B. H. BULL & SON BRAMPTON, ONT.

Hillview Ayrshires!

For sale: Females of all ages, bred for dairy purposes, with large teats, deep milkers and large in size. Also a few extra good young bulls on hand. Winchester station, C. P. R.

A. Kennedy & Son, Vernon, Ont. "HILLSVIEW FARM."

Cherry Bank Ayrshires

I am now offering young bulls and heifers true to type and high in quality. Some with imp. sire and dam; also will spare a few older females.

P. D. McARTHUR, North Georgetown P. O. Que Howick station, Que.

Trout Run Ayrshires - My present offering is several heifers and cows in milk, a number of heifer calves, 3 young bulls fit for service, one of them from imp. sire and dam; dam's record 45 lbs. a day. My herd are heavy producers and critically selected. Also offering 20 Toulouse geese at \$4 and \$5 a pair.

W.M. THORN, Lynedoch, Ont.

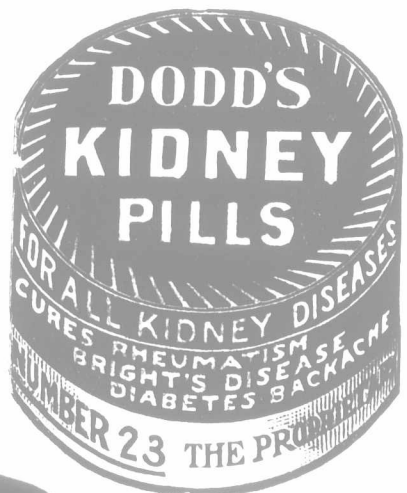
HILLCREST AYRSHIRE - Bred for production and large teats. Record of Performance work a specialty. Fifty head to select from. Prices right.

FRANK HARRIS, Mount Elgin, Ont.

In one instance, at least, had spelling enabled an office boy to express the precise fact. His employer had just reluctantly left to attend a meeting of bank directors where the proceedings were sure to be long and prosy.

"James," he said to the tow-headed lad, "put up the sign saying that I am out."

James sought for it in vain, so he inscribed and posted the following truthful announcement: "Out—Gone to a Bored Meeting."



GOSSIP.

(Continued from page 239.)

Bros., Rothsay, Ont.; per cent. fat 4.30; lbs. milk 6,778; lbs. fat 292.04; 365 days.

Isaiah Miss Sandy—23827—; owner, Gus. A. Langelier, Cap Rouge, Que.; per cent. fat 4.28; lbs. milk 6,744; lbs. fat 288.75; 365 days.

Auchenbrain White Rose—26348—; owner, R. Hunter & Sons, Maxville, Ont.; per cent. fat 4.21; lbs. milk 6,618; lbs. fat 278.82; 363 days.

Neidpath Rose 10th—21459—; owner, W. W. Ballantyne, Stratford, Ont.; per cent. fat 4.60; lbs. milk 6,442; lbs. fat 295.99; 355 days.

Scotia Jean—24130—; owner, W. W. Bowley, Napperton, Ont.; per cent. fat 4.16; lbs. milk 5,880; lbs. fat 244.98; 335 days.

Lucy 4th—25101—; owner, W. H. Tran, Cedar Grove, Ont.; per cent. fat 4.50; lbs. milk 5,782; lbs. fat 259.29; 329 days.

Up to the end of the year, Primrose of Tanglewyld—15945— holds the highest Canadian record yet made for milk and fat. Canadian Princess—29108— (this cow dropped her calf prematurely 11 months from commencement of test), it is thought holds, not only the Canadian, but the best known Ayrshire record of milk and fat for a three-year-old, the next best being that of Jennie of Sand Hill—19490— (American Herdbook), with 10,160 lbs. milk and 510 lbs. butter. While Adalia 2nd—22949— holds the two-year-old record for milk, with 9,924 lbs., and 866.9 lbs. fat, yet Jemima of Springbank—27689—, with 8,839 lbs. of milk, excels her in butter-fat, with having given 395.33 lbs., equal to 461 lbs. butter. This beats the butter record of the American two-year-old, Baby Douglass—21849—, who gave 449 lbs. butter.

C. W. BARBER'S CLYDESDALES.

C. W. Barber, of Gatineau Pt., Que., has lately arrived home from the land of the "Heather" with a small, but most select importation of Clydesdale stallions. In Mr. Barber's importations, he substitutes quality and character in a select few, to larger numbers selected at random; the result is, that in his stables on the Quebec side of the river, across from Ottawa, parties looking for a typical Clydesdale stallion, smooth, well finished, and that stands and goes right, can usually find what they are looking for. Royal Orton [10225] is a bay four-year-old, by the successful breeding horse, Royal Favorite, dam by the great Sir Everard, grandam by Prince Robert. This is a low-down, thick, smooth horse, of ideal cart type, deep-ribbed, and standing on an extra-nice bottom. Royal Hedley [10226] is a bay three-year-old, by the great Silver Cup, three times winner of first at the Highland, and twice winner of first at the Royal, dam by Johnnie's Style, a Darnley-bred horse, and a sire of note, grandam by the great sire, Castlereigh. This is a horse of superior merit, big, smooth and flashy on the ground. He was first at Chester-le-Street and at the Durham County Shows as a yearling, and fourth at the Royal, Newcastle, as a two-year-old. Royal Hall is a brown three-year-old, by the renowned breeding horse, Montrose Ronald, dam by the Cawdor Cup champion, Prince Alexander. He is a thick, smooth, close-coupled horse, particularly good in the middle, and stands on the right kind of underpinning. King's Courier [10228] is a bay two-year-old, by King's Royal, dam by Baron Lawrence, grandam by the £3,000 Prince of Albion. This is a colt of immense draft character, that will reach the ton when developed. Balraig Pride [10227] is a bay one-year-old, by the H. & A. S., first-prize horse, Pride of Blacon, dam by the noted breeding horse, Up-to-Time, grandam by the famous Lord Erskine. This is a thick-cut-up colt of cart type, and has a faultless bottom. All these horses are for sale, at right prices and favorable terms.

"Let me see, your son will graduate from medical college soon, won't he?" "Yes." "And I presume he'll immediately start to practice his profession?" "No, not immediately. He's going to spend the first six months trying to grow a beard, so he'll look the part."

Only requires 1 man

Lighter Draft, Better Results

The Aspinwall No. 3 Potato Planter is not a two-man machine. It only requires one man, saving you the extra man's wages. It is lighter draft, too. And will plant one-third faster. No other potato planter can compare with it in accuracy. The Aspinwall No. 3 drops over 99 per cent. good. And does it without slightest injury to the seed. We've put seed through the planter over fifty times and it produced as good results as seed planted by hand. No change of pickers required for different sizes of seed or different distances of planting.

Get our catalog F2 explaining detailed construction of Aspinwall No. 3, which is made by largest makers of potato machinery in the world. THE ASPINWALL MANUFACTURING CO. 2 Jackson, Mich. and Guelph, Ont.

Aspinwall No 3 Potato Planter



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., MFNIE, ONT.

Springhill Ayrshires

We can please you in all ages and sexes.

Headed by two bulls whose dams have the highest official records in Scotland. Order a bull calf out of our best cows.

Robt. Hunter & Sons, Maxville, Ont.



STOCKWOOD AYRSHIRES

Are producers of milk testing high in butter-fat. In my herd I have a range of selection, either imp. or Canadian-bred, of either young bulls or females, unexcelled in Canada. Price and terms to suit purchaser. D. M. WATT, ST. LOUIS STA., QUE.

Stonehouse Ayrshires

all ages. Am now booking orders for bull calves.

Hector Gordon, Howick, Quebec

Ayrshires

Four young bulls, all bred on dairy farms, 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.

JALVES

Raise them without milk. No-wet free. The Steel, Briggs Seed Co., Toronto, Ont.

Fairview's Appreciation.

To Our Many Customers: Kindly allow us most heartily to thank you for the many nice statements made regarding Shropshires sent to your orders. We fully appreciate your frank kindness in telling us of your satisfaction.

J. & D. J. Campbell Fairview Farm, Woodville, Ont.

MUSKRAT

ALL KINDS RAW FURS, CALFSKINS, HIDES, ETC. HIGH PRICES. Write for our com. E. T. CARTER & CO., We pay all express and freight. 84 Front St. E. Toronto Ont. charges. Prompt returns in cash.

FARNHAM OXFORD DOWNS.

The Champion Flock. The largest 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. HE RY ARKELL & SONS, Arkell, Ont. C. P. R.; Guelph; G. T. R. and Telegraph P. O., Ont., Aurora Station.

American Shropshire Registry Association.

HENRY L. WARDWELL, PRESIDENT.

Largest membership of any live-stock organization in the world. Vol. 21 of the Record published. Write for rules. J. M. Wade, Secretary, LaFayette Indiana.

MAPLE VILLA OXFORDS AND YORKSHIRES.

Present offering: Excellent ewes, choice rams, and the best lot of lambs I ever offered; all sired by imported rams. Yorkshires of both sexes and all ages. Boars fit for service. Sows ready to breed. A high-class lot. Satisfaction assured. J. A. CRESSWELL, BOND HEAD P. O., ONT., BRADFORD or BEETON STAS.

POPULAR LADGE SOUTH DOWNS AND BERKSHIRES

For sale: A high-class show flock of Southdowns, also shearing rams and ewes, and ram and ewe lambs. Berkshires of both sexes and all ages; right good ones. An honest representation is my motto. SIMEON LEMON, Kettleby P. O., Ont., Aurora Station.

I HAVE GREAT THICK, ROBUST SHROPSHIRE

YEARNING AND TWO-YEAR-OLD RAMS

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-dale mares, and a few beautiful Welsh ponies will also be priced at attractive figures.

Robert Miller, Stouffville, Ontario

MAPLE GROVE YORKSHIRES.

To make room for the natural increase in our herd, we now offer for immediate disposal: A FEW CHOICE YOUNG BOA S (big type) ready for use. 10 sows, bred and ready to breed. 75 Sept. pigs, pairs not related. Mostly all sired by M. G. Champion—20102—, champion and silver-medal boar at Toronto in 1907, and first as a three-year-old in the aged class in 1908. A grand stock getter. Many of our sows are prizewinners, and are of the best Yorkshire blood in England and Canada. A fair and square deal to everybody is our motto. We are putting prices low, because we must sell. Satisfaction guaranteed. H. S. McDIARMID, Fingal, Ont. Shelden Station. Long-distance phone in house.

Newcastle Herd of Rams and Short-horns

at very reasonable prices, 6 sows sired by Imp. Cholderton Golden Secret, bred to farrow in Jan., Feb. and March, to a Toronto prize boar. Nearly all my brood sows are sired by that noted prize hog, Colwill's Choice, or Newcastle Warrior, champion boar at Toronto, 1901, '02, '03 and '05. I also offer 50 boars and sows, from 2 mos. to 4 mos. old. Two bull calves one year old. Half-a-dozen heifers, from 1 to 3 years old. Long-distance Bell phone in home. A. A. COLWILL, Box 9, NEWCASTLE, ONT.

DUROC - JERSEY SWINE

Imported and home-bred. Sows ready to breed. Boars fit for service, and younger ones either sex. Also Embden geese. MAC CAMPBELL & SONS, HARWICH, ONT.

OHIO IMPROVED CHESTER WHITES

—Largest strains. Oldest-established registered herd in Canada. Young sows in farrow. Choice pigs 6 weeks to 6 months old. Pedigrees and safe delivery guaranteed. E. D. GEORGE, Putnam, Ont.

Hillcrest Tamworths

are second to none in America all ages, from sows bred and born fit for service down to youngsters. Herbert German, St George, Ont.

QUESTIONS AND ANSWERS. Veterinary.

RECURRENT SWELLING.

Cow's jaw swells up from nostrils to eyes. The swelling subsides and reappears frequently. She eats fairly well, but slobbers greatly when chewing her cud.

Ans.—This recurrent swelling is hard to explain. Have her teeth examined, and, if there be anything wrong, have it rectified. If the teeth be normal, apply a blister to the parts. Use two drams each of biniodide of mercury and cantharides, mixed with two ounces vaseline; clip the hair off, and rub the blister well in. In two days, apply sweet oil, and oil every day until the scale comes off, then blister again.

INFLUENZA—DRY, HARD FEET.

1. My horses have a cough and a nasal discharge. 2. Horse's feet are dry and hard. Recommend some hoof ointment.

J. H. W. 1. This is influenza, which is very prevalent. Get a liniment made of 3 parts each of raw linseed oil and oil of turpentine, and 1 part liquor ammonia fortior. Rub their throats with this twice daily for 3 days, and wrap throats with flannel cloths. Give internally 3 drams of chlorate of potassium and 30 grains quinine, 3 times daily. Keep comfortable, and do not work them hard. If complications arise, send for your veterinarian.

2. Hoof ointments do little good in these cases. All the commercial hoof ointments act much the same. We would not care to recommend any special make. One made of 1 part vaseline, 1 part oil of tar and 2 parts lanolin will probably give better results than any of the commercial preparations. Blistering the coronets repeatedly, or applying poultices, will give still better results.

Miscellaneous.

BEST WINDMILL.

What company makes the best windmills? I want one.

Ans.—This is one of those questions we cannot answer. In the first place, we do not know, and doubt whether anyone else does, though no doubt many think they do. In the second place, we would not be at liberty to express our opinion if we had one, as to do so would be a quite invidious distinction. Correspond with the various companies; consult users, and draw your own conclusions.

WARTS ON HORSE'S NECK.

Would you kindly tell me through your valuable paper a sure cure for warts on a horse's neck? Have tried several things, but fail to remove them.

Ans.—If the warts have a slim base or neck, they may be safely clipped off with a pair of sharp scissors, and by touching the wound with a stick of caustic potash or a silver nitrate pencil, which your druggist will supply, the roots will be burned out. The slim-necked class of warts may also be removed by tying a horse hair or a silk thread tightly around the base. In the case of broad-based warts, they should either be dissected out, or dressed daily with butter of antimony, applied with a feather till they disappear. The corroded surface should be picked off occasionally before applying the fresh dressing.

NAVICULAR DISEASE.

I have a horse that is very sore in the front feet. What treatment should I give him?

Ans.—This may be navicular disease, and the treatment is to give rest and blister the coronet repeatedly with a mixture of two drams each, biniodide of mercury and cantharides, and two ounces vaseline. Clip the hair off about two inches high all around the hoof, and rub the blister in well. Tie so he cannot bite the parts. In 24 hours rub well again with the blister, and in 24 hours more wash off and apply sweet oil. Let the head down, and oil every day. Blister in this way every month. This will relieve the symptoms, but will not entirely cure, and he may go lame again if driven on hard roads. If you cannot give rest, use a pair of Dunlop rubber pads.

DR. McLAUGHLIN'S PLAIN TALK TO WEAK MEN

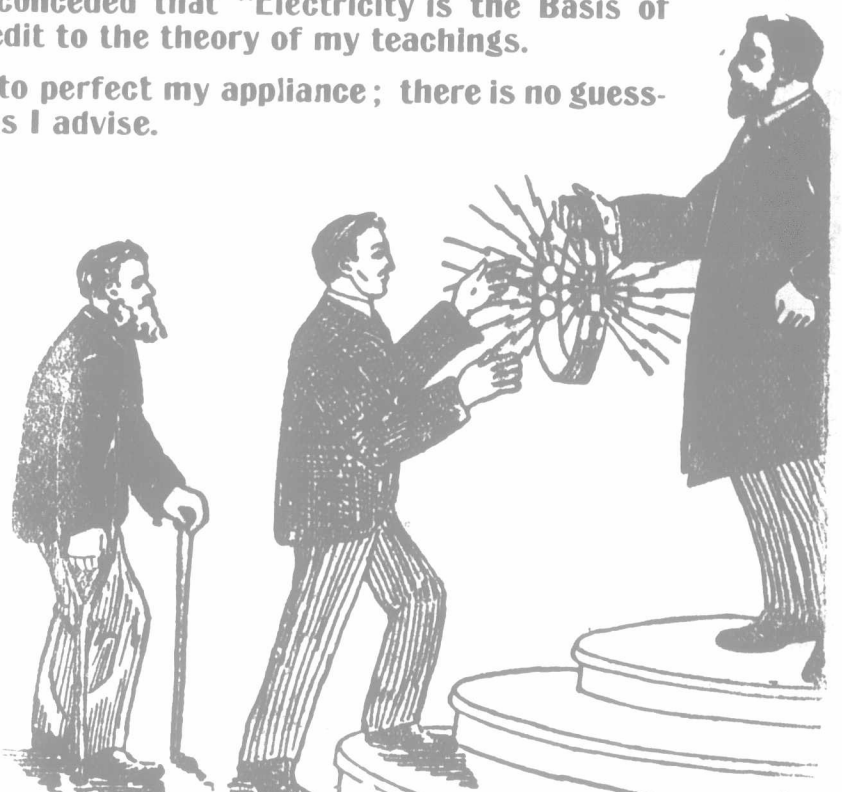
Now that it is generally conceded that "Electricity is the Basis of Life," you should give some credit to the theory of my teachings.

I have spent twenty years to perfect my appliance; there is no guess-work about curing when used as I advise.

The current supplied by my Belt enters the body in a glowing stream of vitalizing heat, so gentle that the nerves and vital organs absorb it as freely as a hungry babe drinks milk. This force is added to the natural power generated by the stomach; it saturates every vital part, and soon transforms the debilitated body into a natural storage battery which generates its own health and closes the doors forever to disease and debility. I am an enthusiast, you say. Why should I not be? I have the gratitude of thousands of people who have been cured by my Electric Belt after failure of the best physicians. I am enthusiastic, because I know that I relieve suffering humanity with the surest cure for the least expenditure of money that is known to-day.

Every man or woman who comes into my office gets a practical illustration of my method of treatment, and goes away convinced that the claims that I have made for it are true. After seeing original letters from the cured (letters which I am permitted to exhibit), their doubts are dispelled, and they know that my Electric Belt makes strong men out of weak men, gives new life and ambition to men who formerly were weaklings.

They read grateful letters from men and women who were cured by my Belt of rheumatism, backache, lumbago, sciatica, stomach, liver, bowel, kidney and bladder troubles. They also see evidence of wonderful cures of locomotor ataxia and some forms of paralysis. Every day brings fresh evidence of the wonderful cures.



MY CURES PROVE THE TRUTH OF MY ARGUMENTS

Dear Sir,—I have worn my Belt for a month, and I am well pleased with the results. I feel better in every way; have a good appetite, and my food digests well.

IRA S. ACKER, Birchtown, N.S.

Dear Sir,—I have used your Belt since last November, and I feel much better. The emissions have stopped entirely. I am well pleased with the Belt. It has proved all you claimed for it.

DANIEL CHATTERTON, Cobalt, Ont.

Dear Sir,—I purchased one of your Belts about a year ago, and I am thankful to say that I am a new man, and I cannot say enough for it. I am stronger than men half again as big as myself, and I am 24 pounds heavier than before I got your Belt.

H. G. SPARROW, Box 256, Brampton, Ont.

Dear Sir,—I am glad to say that your Belt has made a permanent cure of my case. After using the Belt and

following directions for three months I felt like a new man, and have not used it since. As it is now over eighteen months since I stopped using the Belt, and have had no return of my trouble, I find I am cured, and words cannot express the gratefulness I have towards you and what your Belt has done for me. Before using your Belt I weighed 140, and now I go 170. I am recommending your Belt to all my friends.

LEON ROLFE, Lime Ridge, Que.

DR. McLAUGHLIN'S OFFER

Any man who is suffering from any weakness, let him come to me and I will cure him, and if he will give me evidence of his honesty and good faith by offering me reasonable security, he may use the Belt at my risk and

PAY WHEN CURED

FREE BOOK

If you cannot call, write for my beautiful illustrated book, giving you cuts of my Belt and prices. This little book is of great value to any one; it contains a lot of useful information to men who are not what they should be; tells how strength is lost and won. I send this book closely sealed free to anyone. I have a book for women as well as men.

Put your name on this coupon and send it in.

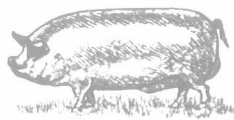
DR. M. S. McLAUGHLIN, 112 Yonge Street, Toronto, Can.

Dear Sir,—Please forward me one of your Books, as advertised.

NAME

ADDRESS

Office Hours—9 a.m. to 6 p.m. Wednesday and Saturday until 9.00 p.m.



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.

JAMES WILSON & SONS, FERGUS, ONT.

SUNNYSIDE CHESTER WHITE HOGS.

I am now offering some very choice young things of both sexes, of breeding age. A few Shropshire sheep of both sexes. A number of Bronze turkeys and toms, and Red Cap cockerels and pullets.

W. E. WRIGHT, Gilmorton P. O., 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.

MAPLE LEAF BERKSHIRES

For sale: Young sows bred and ready to breed; boars fit for service; also young pigs farrowed in March and April. Imp. sires and dams. Pairs not akin. C. P. R. and G. T. R. Joshua Lawrence, Oxford Centre P. O., Ontario.

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, Murrison, Ont.

ADVOCATE ADVERTISEMENTS PAY.

REWARD!!

Any Subscriber May Have Date On His Own Label Advanced Twelve Months By Sending Us the Names of Two New Subscribers and \$3.

Every Premium We Offer Is Exceptionally Good Value. We Give Greater Value in Our Premiums Than If You Were Paid a Cash Commission. Note the Following List:

BARON'S PRIDE. Handsome picture of the Champion Clydesdale. Size, 17 x 13 in., including margin. Suitable for framing. 1 new subscriber.

NICKEL WATCH. Good timekeeper. This watch has taken well. 3 new subscribers.

BIBLE—Old and New Testaments in beautifully clear, legible type; references; concordance to both Old and New Testaments. Index to names of persons, places and subjects occurring in the Scriptures. Twelve full-page maps, all excellent in type and outline. This book is of most convenient size, being 7 x 10 inches when open; weight 23 ounces; with strong and flexible binding; and would sell at regular retail price for \$1.00 or over. Sent postpaid to any subscriber for sending in only 2 new subscriptions accompanied by \$3.00.

40-PIECE AUSTRIAN CHINA TEA SET, handsome and dainty in shape, coloring and design; ordinarily retailing from \$4.00 to \$6.00, depending on locality. 4 new subscribers.

FARMER'S ADVOCATE KNIVES, manufactured by Jos. Rodgers, Sheffield, England. Jackknife and Penknife, both nickel-handled and having two blades. These knives were manufactured specially for the Farmer's Advocate. Worth, retail, \$1.00 each. 1 new subscriber for each knife.

DICTIONARY. An indispensable volume in every home. The Chambers' Twentieth Century Dictionary. Cloth bound, contains 1,200 pages, profusely illustrated, printed on superior quality of paper. 2 new subscribers.

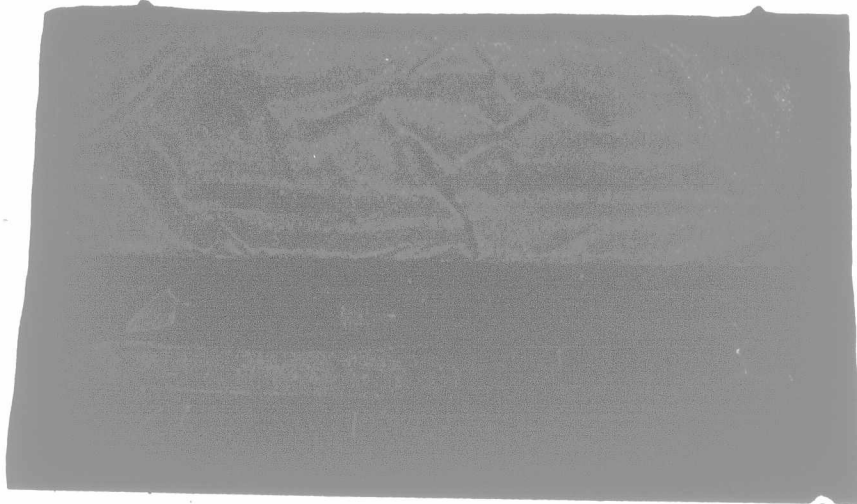
"CARMICHAEL": A Canadian Farm Story. Bound in cloth, illustrated. Just the thing for Christmas or Birthday Gift. "Far above the ordinary run of fiction," says the Buffalo Courier. "Should be in all the homes of the people," Toronto World. 2 new subscribers; or cash, \$1.25.

We must have honest workers. Changing the name from one member of the household to another, or deception of any kind, will not be allowed. If discovered, the premium will be withheld.

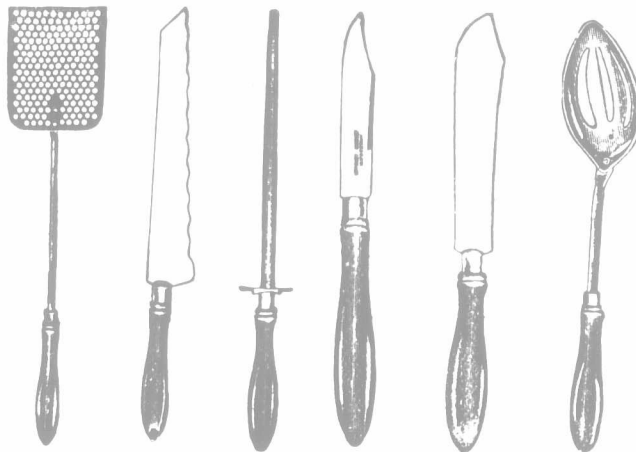
These premiums are given only to our present subscribers for sending in bona-fide new yearly subscriptions, accompanied by \$1.50 each.

Send Postal for Sample Copies and Agent's Outfit and Start to Canvass at Once.

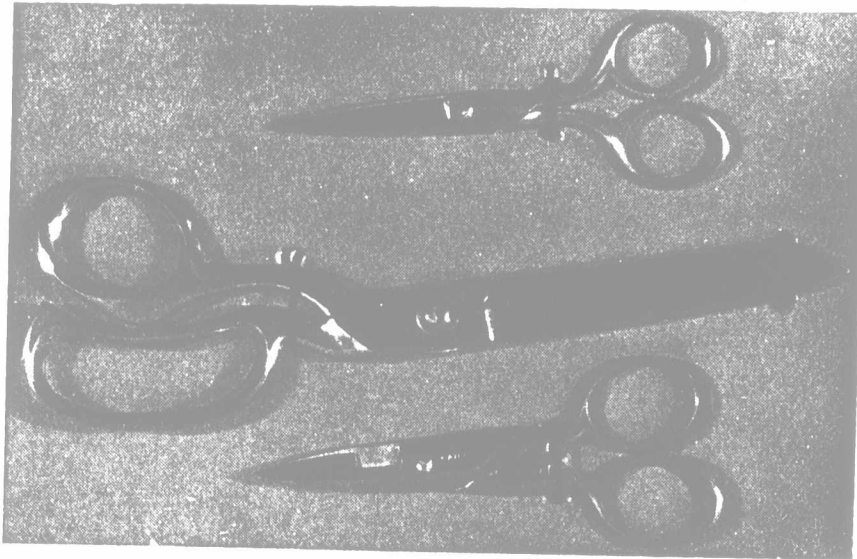
The William Weld Company, Limited,
LONDON, ONTARIO.



SET STAGHORN CARVERS. High-class goods. First quality of steel, and staghorn handles and handsome nickel mounting. These carvers will retail at \$3.50 to \$5.00 per set. 4 new subscribers.



A COMPLETE KITCHEN EQUIPMENT. A UTENSIL FOR EVERY PURPOSE. All made of the highest grade of crucible steel, carefully tempered, ground and polished by the latest improved process. Rubb-roid finished hardwood handles, mounted with nickel-plated ferrules. Now is your opportunity to supply your kitchen with a complete cutlery outfit. All six articles sent to any subscriber for sending in only 1 strictly new subscription and \$1.50.



SET SCISSORS.—One self-sharpening scissors, one embroidery scissors, one buttonhole scissors—will cut buttonhole any size. All good quality steel. For only One New Subscriber to The Farmer's Advocate. Must be sent by present subscriber.

GOSSIP.

O. Sorby, Guelph, Ont., writes: I have recently sold the following imported Clydesdale stallions: To Charles Bean & Sons, of Brinsley, Ontario, Enigma. He has been twice in the short leet at the Highland Society's Show, as a three-year-old he was the Girvan and Ballantrae premium horse, in 1902 he was the Peebles and Biggar premium horse, in 1903 he had the Dalbeattie premium, in 1904, 1905 and 1906 he was engaged by the Perth and Coupar-Angus Society, and in 1907 by the Fifeshire Agricultural Society. He has proved a most popular breeder in every district where he served, and his stock are noted for their size and quality. He is a sure foal-getter, and leaves the kind of stock that sell for big prices. Prince of Walton has just been sold to Wm. Faulds, of Muncey, Ont. He is a low-down, thick horse, with the best kind of legs and feet, has the most desired kind of fine, silky hair on his legs, with the right kind of sloping pasterns. His pedigree is of the best, tracing on his sire's side to Darnley, and on his dam's side to Prince of Wales. He should greatly improve the stock in the district he has gone to.

R. R. NESS' AYRSHIRES.

R. R. Ness, the well-known importer of Ayrshire cattle, at Howick, Que., is continually adding improvements to the attractiveness of his splendid stables and renowned herd of Ayrshires. The latest is the installation of electricity for lighting purposes. With fifteen lights of 16-candle-power each, the effect is most pleasing, the whole stable, with its long rows of Ayrshires, being brilliantly lighted. At the present time there are about 140 head on hand, 72 of which are milking, turning out an average of 200 gallons per day, bringing in a monthly revenue greater than is made on an ordinary 100-acre farm in a year. There is no other herd in America, or probably in the world, that contains so many high-class animals as the Burnside herd, very many of which are in the Record of Performance, the milk yields of a few of which we note. Denty of Auchenbrain, 12,000 lbs. per year; Findlayson Maggie (imp.), 10,975 lbs. milk and 528 lbs. butter-fat, as a four-year-old; Culcaigairn Bonnie Jean, 70 lbs. a day; Barcheskie Lucky Girl (imp.), 8,965 lbs. in 1 year, as a two-year-old; (a daughter of hers, Burnside Lucky Girl, is now giving 80 lbs. a day at first calving); Burnside Clara, two years old, is giving 42 lbs. a day, etc., and many others with records up to 10,000 lbs. per year. Auchenbrain Fanny (imp.) has a Scotch record of 64 lbs. a day at four years of age. Those mentioned are only illustrative of the high-producing qualities of the herd in general, many of which are giving up to 50 lbs. per day. The show-ring record of the herd is too well known to need repeating, suffice it to say, that at the late Seattle Exhibition they won ten out of a possible fifteen first prizes, three championships and two reserves, four silver cups and three medals. At New Westminster, B. C., they won thirteen out of a possible seventeen first prizes, and the female championship. The herd is headed by the three great bulls, Imp. King's Beauty, the unbeaten champion; Imp. Gay Cavalier, first and senior champion at Seattle and New Westminster; Imp. Netherhall Douglas Swell, first, junior and grand champion at Seattle, and first in senior yearling class at New Westminster. During the last year Mr. Ness has sold 350 head of Ayrshires, which were distributed practically all over the continent, very many of them going to Alberta. His 1909 importation comprised 51 head, all of which are sold. There are at present on hand, 32 head of heifers under 15 months of age. Intending purchasers will find in this herd a big range for selection in females, and a limited number of bulls.

The lecturer raised his voice with emphatic confidence. "I venture to assert," he said, "that there isn't a man in this audience who has ever done anything to prevent the destruction of our forests."

A modest-looking man in the back of the hall stood up.

"I—er—I've shot woodpeckers," he said.

—Everybody's Magazine.

"At your service Sir—Anywhere"

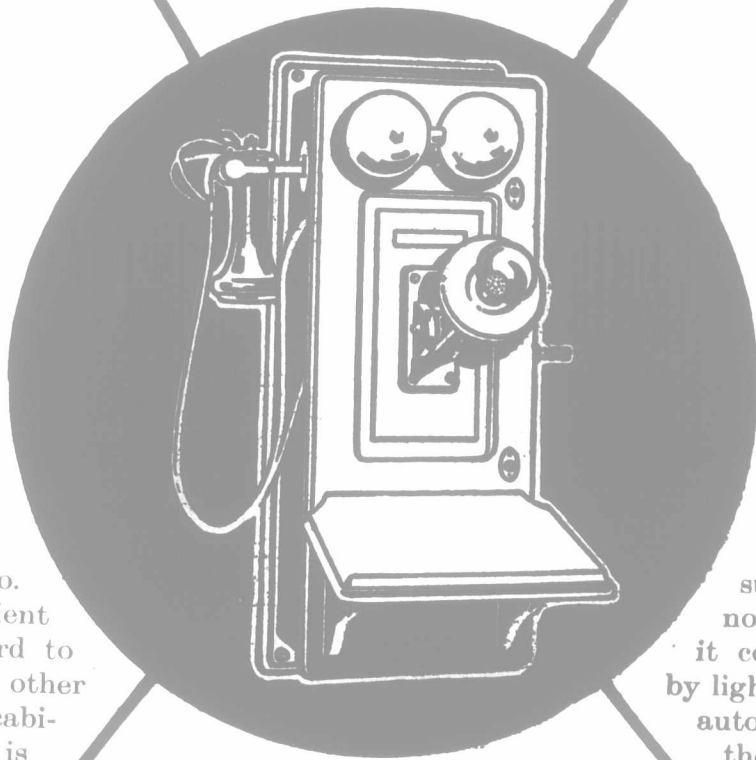
YOU must analyze the parts of our No. 1317 Telephone Set to fully appreciate its superiority. For example, a farm 'phone demands an extra loud gong—you're liable to be quite a piece away when it rings and it's of little use unless you always hear it. The gong we use is made of brass—a big one—and produces fully 50% more noise than any other gong for farm use. The gong posts are mounted directly on the ringer frame so that even the warping of the instrument cannot change the adjustment.

THAT'S what a telephone says to every man on whose wall it hangs. It's a good servant—is a telephone—a mighty good servant and always ready and waiting for you the moment you want it. And not only is it there for business, but it stands for pleasure as well. Think what a convenience,—what a deal of comfort,—it would be for you in the long, lonesome winter evenings, when the snow is piled mountain-high in every path and road. Or suppose you needed a doctor on one of those evenings—just suppose. Well, if you have a telephone—but you know the story. There's only one way for a story like that to end if your telephone's a good instrument—if it doesn't get out of order—if it doesn't fail you at the critical moment—in short, if it's a "Northern Electric." You save a trip to town—a long wait—a never-ending journey back—and—perhaps—a life. Who knows!

NO. 1317 is equipped with our new No. 48-A generator—a generator whose efficiency is greater, and which will ring a greater number of telephones on a longer line than any generator on the market. Thousands of these generators are operating on lines more than 30 miles long with as many as 40 telephones on the same line. Indeed, in one case, on a line approximately 75 miles long, there are 75 sets. While this is, of course, really too great a load, it is of interest as indicating the wonderful strength of this generator. Consider this

Our Newly Designed No. 1317 Type Telephone Set

is also equipped with our new type No. 38 ringer, a very sensitive and efficient ringer operating with only one-third to one-fourth the current required for other ringers in use on farm 'phones. The cabinet, or wooden part of this telephone is the very finest quality and finish of quarter-sawed oak—in point of mere appearance this instrument is an ornament to any wall. Of course, this means nothing, unless the service it gives is of the very best; but, consistent with satisfactory service, good appearance is always desirable.



And Some Of Its Principal Exclusive Features

such as the fact that the armature is normally short circuited so as to give it complete protection against damage by lightning. The act of turning the crank, automatically connects the generator to the line—and this circuit is again broken as soon as the crank is released. All magnets are made of a special steel so as to insure their retaining their strength indefinitely. Remember this is a five bar generator and fully fifteen per cent. more efficient than any other generator on the market—specially adapted for use on long, heavily loaded rural lines.

Write for our Free Book

THE whole story of rural telephones is yours for the asking. Simply tell us that you want it.

Ask us to send you Bulletin No. 1216 and let it tell you not only all about our telephones for farm use, but also of the steps it is necessary to take in the formation of a rural 'phone company. This book tells how simple it is—how very little money is required and places you in a position where you can go right ahead yourself in your own community

and organize among your own neighbors. After you get the book, if there is other information you want, all you have to do is to ask for it—tell us what you want, and we will supply you with every detail. Why should you not be the man to promote a telephone company in your own neighborhood? Write us to-day—remember, the story is yours for the asking.



THE NORTHERN ELECTRIC AND MANUFACTURING CO. LIMITED

Manufacturers and suppliers of all apparatus and equipment used in the construction, operation and maintenance of Telephone and Power Plants. Address your nearest office.

MONTREAL, TORONTO, REGINA, CALGARY,
 Cor. Notre Dame and Guy St. 60 Front St., W.
 VANCOUVER, 918 Pender St., W. WINNIPEG, 599 Henry Ave.



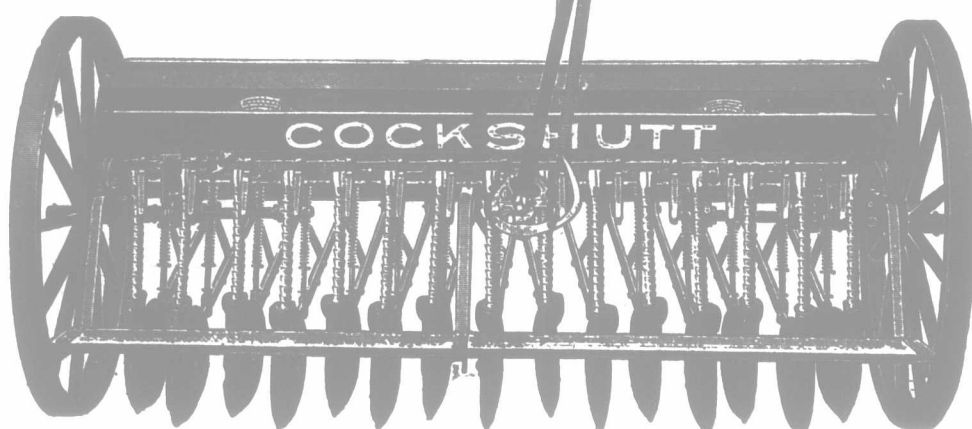
BIGGER CROPS — BETTER GRAIN MORE MONEY

IS THAT WHAT YOU WANT?

LIKE lots of other farmers at this time of the year, you are thinking of buying either a Disc or a Hoe Drill. Read this advertisement carefully before you decide—study the principle of

this Cockshutt Disc Drill—get our Drill booklet and go into this matter thoroughly, because here is a machine that will help you get better crops.

Cockshutt
New
Model



15
Disc
Drill

Also made with 13 Discs

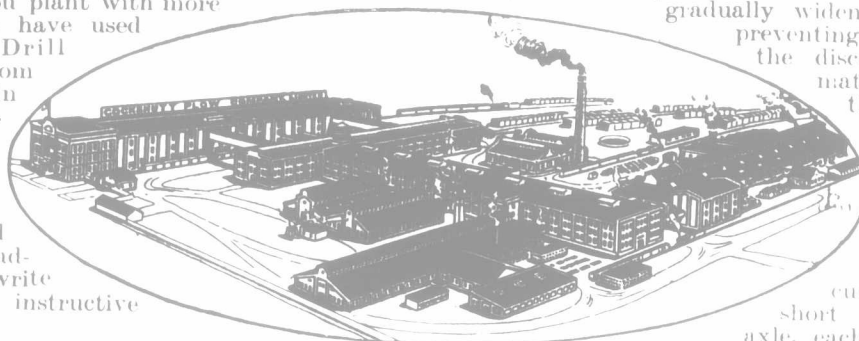
THE particular advantage which the Cockshutt Disc Drill possesses, is that it sows the grain 6 inches apart—not 7 inches as is the usual method. Close seeding gives the grain a better chance to germinate—to sap all the nourishment of the soil. Thus the grain grows up closer and firmer—holds moisture better—resulting in a bigger yield and better grain. Close seeding does not mean that you have to sow more seed—you simply plant the same quantity of seed as you would with old style machines, but you plant with more discs. Farmers who have used this Cockshutt Disc Drill report an increase of from 2 to 5 bushels an acre, in other words this Cockshutt Disc Drill will easily pay for itself in one season and still leave you a nice profit over and above. Read all about the other advantages it has—then write us and get our very instructive booklet about it.

The discs on this machine are 6 inches apart—not 7 inches like old style machines. Footboard runs the whole length of the machine, which makes it optional with the driver whether he walks or rides. Footboard can also be used for carrying seed bag to the field. The frame is built of high carbon steel, the corners being reinforced by heavy malleable castings and steel corner braces. The castings pressure bar and short self-aligning axles are rivetted to the strong I beam which runs the

whole length of the machine. One of the great advantages of this I beam is that it never allows the machine to sag in the centre. Axles are made of cold rolled shafting, always uniform in size and set at the right angle to give the wheels proper pitch. The self-oiling device keeps the disc bearings in good shape a whole season. The grain flows down the closed boot right into the bottom of the furrow and is always sown at uniform depth. The space between the grain boots and discs gradually widens from bottom to top, preventing mud and trash stopping the discs from revolving. No matter how wet or sticky the soil, these discs will always revolve and cut. Scrapers are provided so as to keep discs clean on each side. The feed on this Cockshutt Disc Drill is a positive force feed of great accuracy and is driven by a short steel chain from the axle, each half of the feed being driven separately. The seed box is made of choice seasoned lumber and the cover locks automatically.

We use metal bridges between feed cups to prevent grain from clogging, so that the last seed is sown out of the box at the same rate per acre as when the grain box is full.

You can't realize all the advantages and improvements of this Drill until you read full explanations in our booklet. Don't buy a Drill of any kind until you read it.



Read These Letters—Then Write for Booklet

Cockshutt Plow Co. Ltd.,
Brantford, Ontario

[Dairy Farm, Bay View
May 31st, 1909

I purchased a Cockshutt 15 Single Disc Drill from your agent, Mr. J. H. Finlay of Collingwood, and I desire to state that I am more than pleased with the work done by it. After giving it a severe trial in lumpy ground, also in wet and sticky soil, I could not clog the drill.

I would recommend this drill to all farmers intending to purchase.

(Signed) R. S. BAKER.

Cockshutt Plow Co. Ltd.,
Brantford, Ontario

Thorndale, July 20th, 1909

Gentlemen:—

I have very much pleasure in recommending the 15 Single Disc Drill purchased from your agent, W. McMartin of Thorndale. After putting in seventy acres of spring seeding with two horses I think it the best drill I have ever seen, and the easiest to operate. I have not seen its equal, and think it has to be made yet. I cannot say too much for it.

(Signed) JOHN MORDEN.

COCKSHUTT PLOW CO. **BRANTFORD**
LIMITED