\$1.50 PER YEAR.

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Vol. XLVIII.

LONDON, ONTARIO, JANUARY 23, 1913.

No. 1061



Looks as Neat When Stretched on the Posts as It Does in the Picture

"Frost Fences"-

-reasons for their lasting service

There are leaders in 'every industry-those who have won the right to success-those who can honestly say that their goods are the "best."

"Frost Fences" have given satisfaction for 1. A wire full gauge, like "Frost" wire. so long and are so well and favorably known, that we are entitled to use the word "best" in the full meaning of the term. The farmers of Canada learned long ago that the "Frost Fence" was a good, tireless servantone that gave the most lasting and satisfactory service. Yet, we only ask reasonable prices, and in return give you the "best" fence that can be bought at any price.

The question for the farmer to-day is not "Can I afford to have a 'Frost Fence'?" but, "Can I afford not to have a 'Frost Fence'?" Demand the following of all fence manufacturers:

- 2. A wire as strong and as well galvanized as "Frost" wire.
- 3. A lock as tight as the "Frost" lock.
- 4. A woven fence with uprights straight and evenly spaced, like in "Frost Woven Fence.'
- 5. A woven fence with even length lateral wires, making stretching easy.
- 6. A woven fence without kinks in the lateral wires, but with a natural wave for "give and take," as in "Frost Woven

If you really get all this in any fence that you may purchase, we frankly tell you that you will be well satisfied, but we have good reasons for believing that the "Frost Fence" is the only one made that comes up to this high standard.

N.B.—Remember, when buying a fence you stand to make or lose a good deal of money! Isn't it worth one cent and the time it takes to put down your name and address to find out about the "best" fence. Send a post card right now for full particulars regarding "Frost Fence"—the "best" fence. It will pay you to do so.

The Frost Wire Fence Company, Ltd., Hamilton, Ontario



SYNOPSIS OF DOMINION LAND REGULATIONS

ANY PERSON who is the sole head of a family, Any PERSON who is the sole head of a family,
any male over 18 years old, may homesteed a quarter section of available Dominion land
in Manitoba, Saskatchewan or Alberta. The
coolionan must appear in person at the Dominion
Lands Agency or Sub-agency of the district. Entry
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maditions, by father, mother, son, daughter
brether or sister of the intending homesteader.

Dutter—Six months' residence upon and cultivation of the land in each of three years. A home-trader may live within nine miles of his homestead on a farm of at least 80 acres selely owned and accepted by him or by his father, mother son, dangeter, brether or sister.

In certain districts a homesteader in good stand-ing may pre-capt a quarter-section alongside his contend. Price \$3.00 per acre.

Dules—Must reside upon the homestead or pre-emption six months in each of six years from date of homestead entry (including the time required to care homestead patent) and cultivate 80 acres

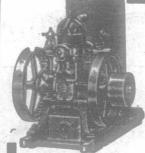
steader who has exhausted his homestead the and cannot obtain a pre-emption may enter the a purchased homestead in certain districts. Price 32.00 per acre. Duties— must reside six manshts in each of three years, cultivate fifty acres and erect a house worth \$300.00.

W. W. CORY.
Deputy of the Minister of the Interior. N. B.—Unauthorised publication of this adver-

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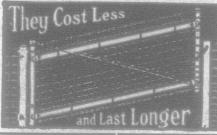
The strongest and simplest farm engine made; only three moving parts: nothing to get out of repair. Anyone can run it without experience. Thousands of satisfied customers use these engines to grind feed, fill silce, saw wood, pump, thresh, run cream separators, and do dozens of other 'obs. Cheaper than horses or hired men. Fill up the tanks and start it running, and no further attention is necessary; it will run till you stop it.

PREE TRIAL FOR 30 DAYS: You don't have to take our word for it. We'll send an engine anywhere in Canada on Thirty Days' Free Trial. We furnish full instructions for testing on your work. If it does not suit you send it back at our expense. We pay freight and duty to get it to you and we'll pay to get it back if you don't want it.

Absolutely guaranteed for 10 years. Write for tree catalog and opinious of entisfied users. Special offer in new territory.

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STRONGEST and best farm gate made. 30,000 sold in 1912. Can't sag, bend or break. Can be raised as shown. Good for Winter and Summer. Send for illustrated price list.

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IN the early part of October, 1912, we announced in leading farm papers that we were placing on the market a high type of gasoline engine. We predicted that it would score a rapid success.

The older manufacturers of gasoline engines merely smiled at our announce-ment. Another make of engine among the great number in the field would never be noticed, so they thought. But as succeeding advertisements appeared and the interest of farmers in the Renfrew Standard engine continued to grow, as so much talk was created by the Renfrew Standard exhibits at the big Fall Fairs, as reports from agents in the field kept coming in saying that they were losing many of their prospects who were buying the Renfrew Standard engine, the long established manufacturers woke up to the fact that an exceedingly formidable opponent was successfully invading the field.

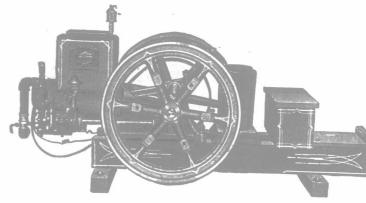
We must confess that the success of the Renfrew Standard engine has exceeded even our most sanguine expectations. But considering the remarkable perfection to which this gasoline engine has been brought—the many improvements it possesses-it is really no wonder that intelligent Canadian farmers have given it such a roval welcome.

Complete description of the Renfrew Standard gasoline engine is given in a handsomely illustrated booklet. You and every other progressive farmer will want to get posted on the latest and best type of gasoline engine for sale in Canada, so fill in and mail the coupon below.

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Strongly and substantially built, yet not heavy or cumbersome. Simplicity, compactness and accessibility are outstanding features. Parts are so perfectly balanced that engine does not jump or crawl. Needs no fastening down.

Needs little water for cooling. Has no pipes, fittings or valves to leak or freeze, no cooling pumps or fans to get out of order. Starts easily under all weather conditions without cranking.

The governor, which is the ily pall steam engine type, is so sensitive that it controls engine perfectly, and the speed of the engine can be varied at will while running.

Carbureter is of simple construction and proper proportion to make a perfect mixture.

Valves so arranged that gases explode as perfectly as a cartridge in a shotgun.

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No ruts on this or any other concrete road

You Can't Wear Ruts in a Concrete Road

Concrete is the Ideal Pavement for either town streets or country highways

CONCRETE IS "RUT-PROOF"

TO REALIZE WHAT THIS MEANS, it is only necessary to compare a piece of dirt or Macadam roadway with one that is built properly with concrete The roadway shown in the illustration is a typical one of its kind. You can see one just like it in almost any Canadian Community. Take a look at the one nearest you. You'll see a big double rut down the centre, made by the vehicles driven there to escape the soft, oozy surface on either side.

There's a reason for that double rut down the centre. A Macadam road when originally laid, must be constructed with a high "Crown," so that the water may drain off properly on either side.

A Concrete road, you'll notice, is not built that way. True, it has a slightly sloping surface, a certain amount of "Crown", but very little is necessary, because a concrete surface drains so much more easily than dirt.

The high crown of the Macadam road forces all vehicles to drive in the centre of the road. From the very day the roadway is ready, every wagon takes the middle of the road; and every one that follows, follows in the ruts thus started. The result is that you have two narrow strips of surface carrying the total traffic that passes over that road. Everybody takes to the ruts.

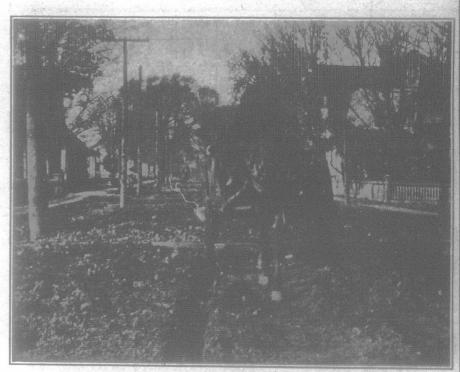
Now see what happens when the road is of concrete. The slope, or crown, of a concrete road is so imperceptible that there's no need to keep to the centre. Vehicles, therefore, use the entire width of the road. The traffic is distributed over the whole surface.

When you drive along a concrete pavement, you'll find no ruts whatever. Concrete doesn't give them a chance to get started.

Concrete roads are not an experiment. They have been proven the best and, in the long run, the cheapest of all roads.

Wind and rain, instead of making mud-pools and ditches, only serve to keep them clean enough to serve as a pathway for pedestrians.

Concrete roads save the farmer's money by allowing him to haul bigger loads, in faster time; they are never impassable when he wants to hurry in with a load of produce to catch high prices.



Driving in the rut. Where else can you drive?

For further information address: PUBLICITY DEPARTMENT

CANADA CEMENT CO., Limited, MONTREAL

Concrete roads save the public money, their cost of maintenance is so low.

Concrete roads are within the reach of every community—the first cost is very little more than that of a good Macadam road; the ultimate cost is infinitely less.



The cost of maintaining 33 miles of concrete road in Wayne County, Michigan, does not exceed \$6.00 per mile per year.

It costs Peel County, Ontario, \$900.00 per mile to maintain Macadam roads for the same period.

You Would Not Go Barefoot in Winter Why not give your face equal thought? If the neck and face are kept warm, the rest of the body will not readily become cold.

Dysthe's Face Protector



enables you to face the worst weather comfortably. Dr. Speechly, of Pilot Mound, Man., says, "Your protector is the best defence that I know of." Hundreds of others who must face all kinds of weather RECOMMENDIT.

Made of fiannel to fit all faces, with double transparent goggles that NEVER FREEZE. WRITE FOR ONE TO-DAY

PRICE \$1.00-MAILED FREE M. DYSTHE WINNIPEG 302 Toronto Street

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Should be acquired early in life-your future years will then be provided for.

There is no better way than through Endowment Assurance.

A small yearly payment will provide a fund to meet future wants, and during the payment period your family is protected.

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MENTION "FARMER'S ADVOCAYE."

We carry a very complete line of supplies for both large and small dairies, including churns, butter workers, butter printers. Babcock testers, milk cans, milk hods, Crescent washing powder, etc. We are exclusive Canadian distributors of the famous De Laval Cream Separators. Be sure to get our Dairy Supply Catalog of the printer of the supply Catalog of the supply canada of the supply Catalog of the log and prices if in need of dairy supplies.

As in our dairy supply line, so arm Supplies. with our farm machinery and supplies, we carry only lines that are known to be absolutely reliable. If in need of a gas engine, ensilage cutter, stanchions, cow drinking bowls, or any kind of farm equipment, be sure to get our catalog and prices before making a purchase. If you contemplate the erection of a silo send for our 48-page illustrated silo catalog.

Creamery Supples. We are the sole Canadian distributors of the World's Standard De Laval "Alpha" Power Cream Separators, also for Wizard Agitators, Eclipse Cream Ripeners, Victor Churns, and Butter Workers and Chaltators, Eclipse Cream Ripeners, Victor Churns, and Butter Workers and Chaltators, Eclipse Cream Ripeners, Victor Churns, and Butter Workers and Chaltators, Eclipse Cream Ripeners, Victor Churns, and Butter Workers and Chaltators, Eclipse Cream Ripeners, Victor Churns, and Butter Workers and Chaltators, Eclipse Cream Ripeners, Victor Churns, and Butter Workers and Chaltators, Eclipse Cream Ripeners, Victor Churns, and Butter Workers and Chaltators, Eclipse Cream Ripeners, Victor Churns, and Butter Workers and Chaltators, Eclipse Cream Ripeners, Victor Churns, and Butter Workers and Chaltators, Eclipse Cream Ripeners, Victor Churns, and Butter Workers and Chaltators, Eclipse Cream Ripeners, Victor Churns, and Butter Workers and Chaltators, Eclipse Cream Ripeners, Victor Churns, and Butter Workers and Chaltators, Eclipse Cream Ripeners, Victor Churns, and Butter Workers and Chaltators, Eclipse Cream Ripeners, Victor Churns, and Butter Workers and Chaltators, Eclipse Cream Ripeners, Victor Churns, and Butter Workers and Chaltators, Eclipse Cream Ripeners, Victor Churns, and Butter Workers and Chaltators, Chalt lenge Butter Printers, and our line of creamery supplies and fittings is most complete. Our 142-p, illustrated catalog gives full specifications and particulars.

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Why not install a De Laval Whey Separator before spring and make whey butter? A De Laval Whey Separator will soon pay for itself. A full complement of vats, presses, curd mills, milk pumps, etc., at your disposal. Be

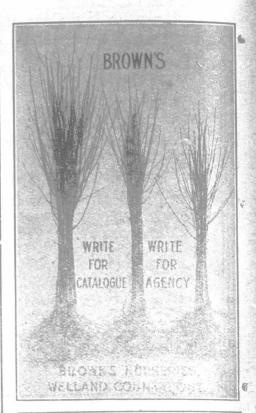
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We have every facility for rendering prompt and satisfactory service to all engaged in any phase of the dairy industry. We aim to carry only apparatus and supplies of the highest grade, and our lines are most complete.

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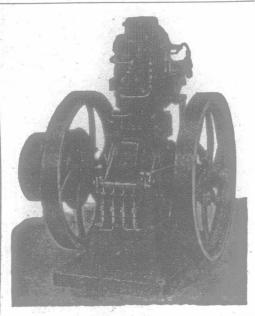
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This handy little tool will save you hundreds of dollars. Not alone in replacing labour but in upkeep and running cost as compared with Gasoline engines. A 12 H.-P. Gasoline Engine costs you 30 cents to operate per hour. Our Crude Oil Engine only costs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

BOVING CO., LIMITED THE CANADIAN TORONTO, ONTARIO 164 Bay Street

Do Your HOISTI

Yes, sir, that's just what we mean! TRY this hoist. Let it lift your wage body, gas engine, slaughtered hog—anything, or try it out on that saggy length of wire fence that needs stretching. Use this hoist for 30 days! If the time, trouble, temper and tugging it saves isn't worth a dozen Jumbos, don't keep it.

ALL Jumbo Safety Hoist and Wire Stretcher

Here's a hoist that thousands of farmers have gone wild over because it's so handy—because it simplifies all their lifting.

The hoist, which can be used equally well as hoist and wire stretcher, is fitted with an automatic locking device that acts on the pull rope. The lock is in the upper block. The instant you let up on the pull rope, zip! goes the lock which takes a bull-dog grip on the rope—holds it until you are ready to lower the load. And the heavier the load, the tighter the grip.

This is the only successful self-locking device on the market with a patent adjustment for ropes of all conditions. Its success is due to its extreme simplicity. Absolutely nothing to get out of gear—nothing to slip

—nothing to wear out or give way. It will last a lifetime and IT'S SAFE. That's why it's popular.

Over 60,000 of these hoists in various cally tested and inspected before shipment. Shipped for 30 days'

FREE use anywhere: guaranteed everywhere. Besides Jumbo

Hoist and Wire Stretcher we make 9 sizes of Hall Safety Hoists—capacity, 400 lbs. to 4 tons.

Mail your name and your dealer's for the catalog and that Big Free Offer right now!

HALL MFG. CO., 957 Main St., Monticello, Ia.



A Gilson "Goes-Like-Sixty" Engine with New Features and Latest Improvements.



MORE VALUE MORE POWER
MORE SERVICE
MORE SATISFACTION

Does satisfaction mean anything to you?

Does money saved in fuel, in time, in repairs
and expense bills appeal to you? Get
Gilson Facts, and find out how the Gilson
40-SPEED engine does the greatest variety
of work—how it gives the maximum satisfaction—saves more in equipment, and

The New Gilson 5, 6 and 8 h.-p. engines, equipped with our new friction clutch pulley, with five removable rims, each of a different diameter. Change to the proper speed for any job in We also make 60-SPEED engines in 1¾ and 3 h.-p. sizes. These are mounted on truck, with line shaft and five interchangeable pulleys, and pump-jack. Drop us a card to-day, and we will send you full descriptive literature. We are making special prices to the first purchaser of one of these engines in every locality. Write NOW. Agents wanted.

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GILSON MFG. CO., LTD., 120 York St., GUELPH, ONT.

VOL. XLVIII.

LONDON, ONTARIO, JANUARY 23, 1913.

No. 1061

EDITORIAL.

Near the door of the living room on a successful Kansas ranch is a motto, "The reason men succeed who mind their own business is because they have so little competition."

How true !

In figuring the prefit of alfalfa, do not forget to allow a liberal entry for its soil-improving virtue. If skeptical, break up a piece of old run-out alfalfa, plant to corn, potatoes, or even oats, and observe the resulting crop.

So it appears that defective scales have been responsible for no small part of the trouble over weights of cheese consigned to Montreal. Bad scales play the mischief with business, and there are too many cheap ones on the market.

Of all modern conveniences is there a greater one than water on tap in house and stables with bath, closet, and a satisfactory system of sewage disposal? Those privileges are almost priceless, and not beyond the means of the majority of Canadian farmers. Look into the question.

As referring to the mixed-farming sections of Canada, it is safe to characterize as a mis-_managed place that farm where the help necessary in summer cannot be kept busily employed the year round, allowing for a week or so of wellearned holidays some time during the winter.

If, as Prof. Wm. H. Day estimates, thirty dollars a year would buy the gasoline necessary to do all the grinding, pumping, cutting, pulping, washing, sawing, cream-separating and churning on a hundred-acre farm, the Hydro-Electric Commission will have to do some figuring to beat it. Of course, hydro still has it on the score of on durability of motors. Between the two, it looks as though the day of cheap and convenient farm-power had certainly arrived.

your neighbor, or may pay your neighbor without proving profitable to you. Moreover, and more especially, the kind which pays your neighbor best may not be the kind which your soil particularly needs. Nature of soil, systems of tirely on the wrong track. As usual, however, cropping and manuring, and various other fac- there is another side to the question. In the adian West that every season was an exceptional profit, he must needs do some individual experimenting on his own fields.

the important Provincial and National Conventions held numerously every year and especially at this season. The gist of it, gleaned with care by our editors, assisted when necessary by picked correspondents, appears promptly week by week in "The Farmer's Advocate." With, perother paper covers these events anywhere nearly so thoroughly, and none ranges the field of the whole country in such a comprehensive manner. As a record of what develops in organized agriparison, as it does on all other points.

Financing Agriculture.

The young and progressive State of Western Australia has, in recent years, been making marked economic progress, which Hon. Sir Newton J. More, formerly premier, attributes in large measure to the fact that agriculture has been succeeding dependence upon mining as a productive a ency. Railways, for the purpose of agricultural development were constructed, and the land-settlement conditions were liberalized. A third direction in which the State undertook to aid the industries of the soil has been by means of the Government Agricultural Bank, which lends money on approved holdings in sums ranging from £25 to £2,000 for improvements, water conservation, stock, farming implements and any other approved purposes. The success of this policy has been completely demonstrated. amount advanced by the Bank last year was £400,000, the next heaviest year being that immediately preceding, when £300,00 was lent. As showing the careful way in which the institution is managed and the caution with which advances are made, out of a total amount of £3,000,000 loaned the arrears of repayment have been quite negligible. Last year the profit on the Bank's transactions was £8,061, which brought the reserve fund up to £35,900. There are now 7,101 accounts current on the books, representing as many customers, and the number continues to increase. Last year 461 accounts were closed and 1.334 new accounts opened, leaving a net increase of 873 accounts. The effect of the policy pursued, writes Mr. Reid in "The Empire Review," has Leen to induce other banks and financial institutions to come into the field for the purpose of lending money on Western Australian agricultural land.

Land-Poor with Ten Acres.

\$2,750 worth of produce from 2½ acres devoted to Commercial fertilizers may pay you, but not bees, poultry, fruit and vegetables, and of finding ten acres too much to work properly, was inclined to make a farmer with one or two hundred acres feel bankrupt. At first blush it would look as though the men with large holdings must be en-

not the whole thing. There are men who would rather work with bees, chickens, and truck farming than with fields of grain, hay and corn. There are many others whom nothing but an immediate prospect of sudden wealth could induce to embark in these minor branches of husbandry. Many would fail if they did.

We have no fear, therefore, of an early general movement away from the staple lines and broader acres of general farming, but we would commend a consideration of the experiences on page 88 of our last issue to those farmers who are struggling to wrest a living profit from the staple lines of husbandry. The possibility of enlarging cash returns and net profits per acre by adding one or more sidelines is hopeful indeed. In some cases it may be done by selling part of the land, working fewer acres, and looking after them better. In other cases it may be possible by employing a growing family to advantage, or in some instances by hiring more help. Details are for the individual to solve. Certainly there are many land-poor farmers in Canada. We do not begin to realize the possibilities of an acre.

How to Earn More Per Day.

In these days of such extreme scarcity of experienced farm help, it becomes necessary for most farmers to accomplish a great deal of work per man. One cannot afford to be doing very much dollar-a-day work. A day's labor must yield a larger return than that if he is to add much to his bank account. How can he spread himself over a great variety of tasks without denying to any the numerous little attentions so important to success? An everlasting study of convenience at every turn is one requisite, and for ilustration we commend the colony-system of rearing poultry, watering with a barrel and feeding once a week by filling hoppers, as de-An eye opener truly was the discussion on in- scribed by J. W. Clark at the Ontario Experitensive farming, which took place at the Ontario mental Union. Short cuts can likewise be made Experimental Union meeting held two weeks ago to whittle down the labor of cattle and hog convenience, greater adaptability, and probably in Guelph. To hear one man tell of deriving a feeding, while in crop production a big margin net income of \$3,500 a year from 25 acres de- of saving is possible through, the use of fourvoted chiefly to beekeeping, fruit culture and horse implements in place of two-horse ones and poultry raising, while another told of selling two-horse scufflers instead of single ones. Some of these changes entail capital expenditure for equipment, but prove sound economy in the end. Cut down labor cost and earn more per day.

New Use for the Silo.

It was once a current observation in the Cantors, enter into the problem. That a farmer first place it must be confessed that the men who season, in respect to the weather. This involved may employ fertilizers with best assurance of achieved these results were of the exceptional no end of variation in adapting methods to conclass, who are reasonably sure to succeed in what- ditions. In Western Ontario one of the unusual ever they undertake. In the second place, let no features of the farm practice of 1918 is filling one assume that their work is easy because their silos in January. This does not mean that the A wealth of information comes to light at acres are few. Daylight to dark, with an corn has just been ripening under a salubrious occasional experience on duty all night, is a winter sky, but it indicates the varied uses to strain which only a constitution like that of Mr. which our old friend, the silo, can be put in the Krouse could endure, and his, probably, not for hands of resourceful owners. Men with probably long. There is, too, the element of differences in one silo of medium size had far more corn last seasons, which, with the beekeeping business in autumn than could be converted into silage, so particular, vary greatly. In such lines the con- it remained shocked in the fields until the first haps, the single exception of the Weekly Sun, no spicuous success of one year is ever liable to be filling was fed out, and the silo was refilled on averaged down by the failure of another. The exceptionally fine days. This is believed to be importance of convenient markets and the neces- a safer practice than undertaking to store large sary limitation of demand are other factors which quantities of corn fodder, run through the cutting will tend to prevent a universal rush into bees, box, into mows, or on the barn floors where a culture, "The Farmer's Advocate" invites com- vegetables, poultry and fruit. Beyond all this great deal of it is liable to be spoiled through again is the question of inclination. Profit is excessive heating. During the past season prob-

us your require-NDON Concrete Co'y, Limited, ndon, Ontario, nfacturers of Con-ry in Canada, I FESSION Lawyer, Dentist; gineer? To enter TRICULATION.

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st cost. Every
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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.

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

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It is impartial and independent of all cliques and parties,

It is impartial and independent of all cliques and parties, handsomely illustrated with original engravings, and furnishes the most practical, reliable and profitable information for farmers, dairymen, gardeners, stockmen and homemakers, of any publication in Canada.

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LONDON, CANADA.

ably more than ever before corn stood for a long time in the shock before it could be put in the silo. How this silage is coming out for feeding is a point on which we invite correspondence from readers who have had actual experience.

That potato canker has gained a foothold in Canada was the disturbing fact brought out in a recent lecture on this serious European potato disease delivered by Prof. Howitt, of the Ontario Agricultural College. Broadcast warnings, it seems, availed not to exclude the infection from Canada. Now, let the individual grower beware and endeavor to keep it off his own particular premises. If you buy any seed potatoes, enquire as to their history and watch for the protruding rusty-brown eyes, characteristic of the slightly infested tubers. Remember that a few diseased ones may infect a bag or a pile.

YOUR SUBSCRIPTION.

Have you sent us your renewal subscription to "The Farmer's Advocate and Home Magazine "?

Our subscribers are our best circulation getters. They can conscientiously recommend it to others, feeling that \$1.50 cannot be invested in any other manner that will give as much pleasure and profit. The larger our circulation becomes, the better paper we can give our readers.

Old subscribers sending us two NEW names and \$3.00 may have their own subscription advanced twelve months; or, for your own renewal and one NEW name, we will accept \$2.50. In either case we expect the new subscriber to pay the morning force their way out at the other end of regular subscription price of \$1.50.

New subscribers will receive a copy of the 1912 Christmas Number complimentary.

Nature's Diary.

By A. B. Klugh, M. A.

The Ruffed Grouse may fairly be reckoned as the premier game bird of Eastern Canada. At the same time, it is one of the most mis-named, being termed "partridge" or "pat'ridge" in some localities and "pheasant" in others. It has not the characteristics of either a partridge or of a pheasant, and we have no native birds in Canada to which these names can be correctly applied. In British Columbia the Mountain Partridge and the California Partridge have been introduced from California, and the Ring-necked Pheasant has been introduced from China. The ruffed grouse has inherited these names from its faint resemblance to the partridge and pheasant of Europe in the same way that our American Robin was termed "Robin" because it had a red breast, though it was twice as large, of a different build and with an entirely different bill to the bird of that name in England.

The ruffed grouse is a fine hardy bird, well adjusted to survive and increase if given a reasonable amount of protection. The recent complete close seasons of the last few years had a beneficial effect upon this species, as it has become commoner again in many localities where it was becoming dangerously scarce. That it has increased is a hopeful sign, as it shows that the Game Laws have been, to a certain extent, respected. And we hope that in the future we may be able to speak more of the "respect for" and less of the "enforcement of" Game Laws, as these laws can only be effective when backed up by an enlightened public conscience. If the great majority of people once realize what an important asset to a country the wild life is, then those few who would ruthlessly destroy it can soon be dealt with as they deserve.

Those who live in thickly populated districts, and those who live in the wilder parts of the country, have very different ideas of the ruffed grouse. In the thickly settled regions one usually hears a whirr of wings and sees but a brown flash as the bird departs for some far distant point, for the ruffed grouse of these districts has been educated and knows that man is to be feared. But away from civilization we get an opportunity to study its habits.

In summer the ruffed grouse feeds largely on insects, wild fruits and leaves. Of the former it eats grasshoppers, crickets, caterpillars of various moths, beetles, flies, bugs and ants. It eats a great many wild fruits, among them being the fruits of raspberry, wild black cherry, wild red cherry, elder berry, Nanny berry, maple-leaved dogwood, climbing bitter-sweet, high-bush cranberry, bunch-berry, snowberry, huckleberry, withe rod, greenbrier, Solmon's seal, black alder, silky cornel, Virginia creeper, wild grape, staghorn sumac, bayberry, blueberry, partridge berry, poison ivy, thorn-apple, mountain ash, blackberry, rose wintergreen and sarsaparilla. Of leaves it eats a great variety, being particularly partial to those of the partridge berry, the sheep sorel, and of several species of ferns.

In the autumn it eats quantities of beech nuts, hornbeam seeds, and acorns, and in the late fall, in winter, and in early spring the ruffed grouse resorts to "budding," that is, feeding on the buds of various trees, largely the birch, poplar, and ironwood. It has been suggested that the trees may be injured by too heavy "budding" by the grouse, but investigation has shown that the birds cannot reach the terminal buds and that no trees are injuriously affected.

It will be noticed that among the fruits eaten by the ruffed grouse is the poison ivy, and it is interesting to notice that in regions where the poison sorel or "lambgrill" is common that the grouse often feeds in winter upon the buds of the po'sonous plant. This fare has no injurious effect upon the bird, but if their flesh is eaten, it often causes glossitis (inflammation of the tongue) and other symptoms of poisoning. Dr. V. K. Chestnut, the specialist on poisonous plants, gave an extract of poison laurel leaves to a chicken, which he subsequently killed and fed to a cat. The cat was rendered seriously ill, but ultimately recovered. One good feature of this item on the bill-of-fare of the grouse is that the laurel buds are eaten only in late winter during the close season, and people who eat grouse then deserve all they get in the way of poisoning.

The ruffed grouse has a peculiar habit of passing the night in the winter beneath the snow. They drive down into the deep snow, and in the their tunnel. I have occasionally come across tunnels in the early morning which had no "exit hole," and, as I approached them, have seen the birds burst out and thy off amidst a spray of snow. Sometimes the habit proves fatal to the grouse, the story of the tragedy being plainly

told by fox tracks leading to and from the tunnel and blood and feathers left at its entrance.

The "drumming" of the male grouse is sound we love to hear. It is a love-call to the female and a challenge to rival males. male has his favorite drumming post, usually a He mounts the log, struts up and down with his tail spread and his black ruffs erect. Then he spreads and raises his wings, and begins to beat them slowly at first, then faster and faster, till the "thumps" become a rolling tatoo. Then follows a period of observation, with the head held high on outstretched neck, and then another "drumming." It is frequently stated that in "drumming," the bird strikes its breast on the log, but by careful stalking I have approached very close to drumming grouse and have seen that it does neither, and that the sound is made by beating the air which is enclosed on the downstroke between the log, the sides of the body and the concave wings.

The nest of the ruffed grouse is made on the ground, a slight depression being scratched out and lined with leaves. From 8 to 13 eggs are

When the young are hatched, they follow the mother about, and when the family is approached she makes a whining sound like a young puppy and drags herself along the ground as if wounded, keeping just out of reach of the intruder. After. about a minute of this acting, off she goes like a bullet. But by this time the chicks have hidden, and so successfully that it takes a very sharp eye to detect even one of the brood, and one has to be extremely careful in moving away not to tread on them.

Rural debate.—Resolved—That forking warm silage out of a silo is preferable to digging frozen corn shocks out of the snow. The "Ayes" appear to have it ten to one.

Exactly one month was the length of time it took the Grand Trunk Railway to deliver a barrel of apples from London, Ont., to Winnipeg, Man. The apples were frozen solid on arrival. Had the weather been warm, they would have required to be embalmed.

HORSES

Watch the feet of the unshod horses to keep them in shape.

It takes little time to dampen the horse hay before feeding, and may help to ward off a case of

It costs no small penny per annum to keep a team of horses shod, especially when used much on metalled roads.

Watch the harness and halters for weak parts. What is the price of a tug, a hold-back strap, a neck-yoke iron, or a halter shank against the value of a horse or two?

Moderate feeding with light, regular exercise will build up and fit a run-down horse as economically as it can be done. Occasional severe work with intervening periods of idleness is hard on condition.

We are deriving a great deal of help from "The Farmer's Advocate", and could not very well do without it. Your veterinary columns are much sought after by the boys. Lambton Co., Ont. P. W. FORSHEE.

Do you know what it costs you a year to keep a horse on the farm? Somewhere between ninety and a hundred and fifty dollars. Is there an idle one eating his head off in your stable? Can't you get rid of him and save money?

In horses, as in cows, type is not the whole consideration by any means. Much depends upon the inherent vigor and stamina wrapped up inside the hide. This quality is not always apparent, even to shrewd judges. The owner of a stable of five work horses, all about the same age and weight, recently remarked that every horseman, who had visited his stables, had picked the poorest horse for the best. Yet this animal, showing evidence of much quality, could not stand half the hard, steady work which the others could easily perform.

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A Small New Brunswick Flock.

Ontario Stallion Inspection.

As it has been reported that a number of Ontario stallion owners did not have their stallions inspected on account of not having information as to the time the inspectors were to be in their district, it has been suggested that some arrangement should be made which would give the owners an opportunity to have their stallions inspected, and thus to have an "Inspected Certificate" instead of being required to use for the coming season a certificate stating "not inspected."

The Stallion Enrolment Board, owing to the impossibility of procuring anything like a complete list of stallion owners, were unable to notify each person individually regarding the working of the Act. Attention, however, may be drawn to the fact that all stallions standing for public service require to be enrolled with the Stallion Enrolment Board, and at the option of the owner may be inspected by inspectors appointed for that purpose.

If the owner decides to have his stallion inspected the report of such inspection forms a part of the record of enrolment, and the enrolment certificate is issued in accordance therewith. If the inspection is not desired by the owner the stallion will be enrolled according to the breeding, and the certificate issued stating "not inspected."

During the recent inspection between one thousand and twelve hundred horses were inspected, showing the large number of owners who had decided it to be in their own interest to have the highest form of certificate available. There are, no doubt, others as stated above, who, if they had had more complete information would have had stallions inspected. Owing to these circumstances, therefore, it has been decided to see if some arrangement could not be made for further inspection. Before doing so, however, it will be necessary that full information regarding desired inspections be sent to the Secretary of the Stallion Enrolment Board. Such application should be made not later than the 7th of Febru-Immediately after that date further information regarding inspection will be sent to those making application.

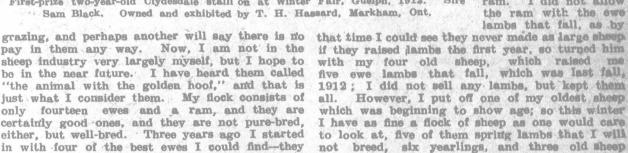
The name and address of the Secretary of the Board is A. P. Westervelt, Parliament Buildings,

Editor "The Farmer's Advocate":

Sheep raising in N. B. is not carried on to any great extent. To be sure, many farmers have flocks ranging from five to thirty in number, and the industry is sadly on the decline. Every year one will hear of some man who is going to get rid of his sheep—some because they can't fence them, another will say because they are too

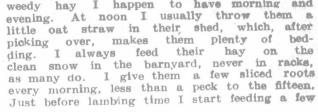
sture on the highest part of my farm. There was an old tenfacre field which was coming up in hardwood bushes, how about three feet high; this I enclosed, and turned out my flock the very last of May. This pasture was entirely out of sight of my house, over a mile back—a fact which I very much regretted, and it seemed to be the only piece of land I could spare and fence most conveniently to keep them. I looked after them occasionally and was particular they had a good hard on the pasture, making it unfit for cattle- supply of water and salted them often. How-

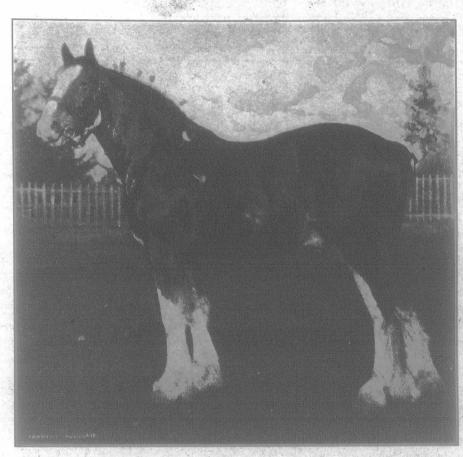
ever, I lost one of the best ewes and a lamb by lightning, as I supposed. This left me with only three ewes and five lambs. Three of the lambs being males, had been castrated early, and I sold them to a buyer for four and threequarter cents per pound, live weight, and they brought me \$12.25; the other two ewe lambs I wintered, making my flock five. I was very sorry to lose the sheep and lamb, as you can guess, for I fully counted on making my flock reach the number of seven, and I borrowed a good ram to use on my ewes, and the following year they raised me seven lambs -one of my yearlings raised one and my three old sheep each twins. That August I sold my one lamb for \$4 and my dry year-ling ewe I traded for a yearling ram, half Dorset. I kept my other six lambs, making my flock up to eleven-ten ewes and a ram. I did not allow the ram with the ewe



ranging in age from four to six years, and one ram. They are all large, well-wooled sheep. I expect them to average eight pounds of wool per sheep next spring.

The sheep industry is the easiest of all stock industries to get a start in. Their wool more than pays for their keep, and if one has a few lambs to sell, more than he wishes to keep yearly, it is all clear profit. I had no shelter for my flock but an old tumble-down shed which had not been considered fit for anything, but I nailed a few boards on the roof, and it afforded them some protection at least. Last fall I felt able to put up a shed on purpose for my sheep, and I built it so I can increase my flock to fifty and still have plenty of room. In wintering my sheep I feed them clover and wild hay and any





Prince of Aden [13763] (16922). First-prize two-year-old Clydesdale stalli on at Winter Fair, Guelph, 1912. Sire Sam Black. Owned and exhibited by T. H. Hassard, Markham, Ont.

LIVE STOCK.

The Provincial Winter Fair.

Editor "The Farmer's Advocate":

I read in a recent issue of "The Farmer's Advocate" an article pertaining to the Guelph Winter Fair problem. A winter fair of this calibre is certainly a splendid educational feature and a fair that any province might well feel proud of; and while the building is of fair size, we must admit that it has outgrown its capacity, and I am sure the management are to be congratulated for having brought the Fair so near to perfection. It is undoubtedly the best fair of its kind in the Dominion, and I feel justified in saying that if it makes the rapid progress in the future that it has made in the past, in the space of a few years it will be unsurpassed on the continent. We are not to look at what it will be one year from now, but what it will be ten years from now; and to provide ample accommodation for all future expansion. It seems a pity that so much money has been spent on the buildings. They are in crowded quarters and a'so out of date. Some are of the opinion that they should pull up stakes and move to West Toronto where it would be more likely to become of a national nature like the International Show at Chicago, but I think the sentiment of the people is that it should remain in Guelph.

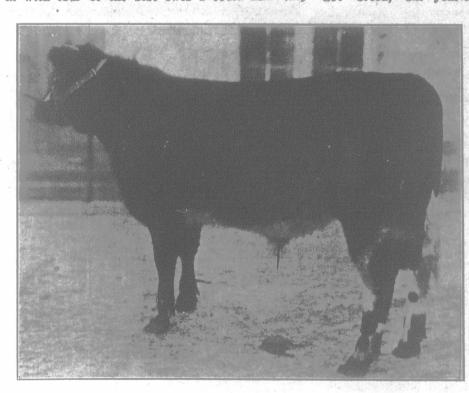
A very important point in connection with this problem is the inadequate accommodation for visitors. We must admit that Guelph is crowded in this respect, and it is only with great difficulty that visitors are able to find lodging. What will it be ten years from now? This is perhaps the most important point in connection with the Fair, as there is nothing that spells success so plainly as to have the visitors feel assured that they will have the best accommodation available, and it is in this respect that Toronto scores one point, it is the largest city in the province and would, no doubt, be large enough to give a equate accommodation to all visitors to the Winter Fair.

Some have suggested that the poultry and seed exhibits remain in Guelph and that the livestock department locate in West Toronto; I should think that this would be a very good plan. It would save building a poultry and seed department in Toronto, and Guelph would not feel that

she was robbed entirely. This question should appeal to every stockbreeder in the province, and I think that any suggestions that can be made will be welcome in the

columns of "The Farmer's Advocate." RUSSELL LINN Halton Co., Ont.

pay in them any way. Now, I am not in the sheep industry very largely myself, but I hope to be in the near future. I have heard them called "the animal with the golden hoof," and that is just what I consider them. My flock consists of only fourteen ewes and a ram, and they are certainly good ones, and they are not pure-bred, either, but well-bred. Three years ago I started in with four of the best ewes I could find-they



Pleasant Valley Again. First-prize Shorthorn steer under one year, at Ontario Provincial Winter Fair, Guelph, 1912. Exhibited by A. F. & G. Auld, Eden Mills, Ont.

were large and well-wooled-and the following weedy hay I happen to have morning and May sheared thirty-nine pounds of wool. A pure-bred Dorset ram had served them before I bought them, and they dropped six lovely lambs, five of which I raised. As sheep had never been kept on my farm for generations, you can imagine the fences were in poor shape to keep sheep. However, there was plenty of cedar growing, and I got out poles enough that winter for one pas-

oats, and continue both roots and oats until the grass gets a good start; then I gradually lessen the amount, and finally stop altogether before turning to pasture. I also had a small pen partitioned off and a cage for the lambs to enter, not being large enough to admit the sheep. I keep a long, low box there with mashed oats, which they are very fond of. With this and the extra feed given the mothers, I could almost see them grow daily. I plan to keep salt before the flock the year round. By applying Scotch snuff to the ewes twice during the first of the winter, they are kept free from ticks; but if any should be seen before lambing time, it will pay Some confine their to give a third application. flocks in small , ards around their pens from early in the fall until turned to pasture. very bad practice, as sheep need plenty of exercise, or the lambs will be born weak, and nearly all die. I have never had my lambs come until after the middle of May, as I had no suitable place for housing them, but next spring they will be dropped a month earlier. Some men can see no money in sheep. For my part, I see big profits after one has a good flock fully established. With the fine grazing lands in New Brunswick, I believe a great future awaits the intelligent shepherd, not only in this province, but throughout Canada.

Next spring I intend making another pasture, and have two, turning them in week about for a change. My first pasture was waste, and with hard-wood bushes about three feet high all over Now the bushes are all dead and I intend plowing it next fall, and I think it will raise a good crop. As yet, personally, I can say nothing about sheep manure as a fertilizer, but an old shepherd once told me that it was nearly as good as hay manure. As you will see, I am starting in the sheep-raising business, but I for one am satisfied with the start I have made.

York Co., N.B. BARRY J. WHITEHEAD.

How Foxes Are Reared in Prince Edward Island.

Editor "The Farmer's Advocate":

Replying to requests for information about the breeding, feeding, and general management of foxes raised in captivity on Prince Edward Island, I have been able to gather the following particulars, which I trust is about what your inquirers in Ontario want to get. The sketch accompanying this will illustrate just what a ranch is like. It is a rough draft of "St. Patrick's Fox Ranch," which had the honor to be christened by Princess Patricia, who, with her parents, the Duke and Duchess of Cannaught, visited it last summer

This ranch has in it twenty-eight of the best black foxes, and has capacity at present for more than double that number, and in its extent. and management, will fairly represent the fox industry here at this time. There are quite a few with a larger number of foxes, and many with

constructing a ranch there is first the outer fence, which encloses several acres. the site a bush is generally selected, which, besides providing shelter, makes conditions more This bush should be close enough for good shelter, and open enough over the pens to admit plenty of sunshine. The outer, or guard fence, is constructed of boards or plank, preferably on a concrete foundation, that is $2\frac{1}{2}$ or 3feet in the ground. It is eleven feet high, fastened to cedar posts. The ranch proper is located inside of this on the same kind of a foundation, and is enclosed with heavy woven wire, eleven feet high, and securely fastened to posts three feet in the ground, about ten feet The wire web is turned in all around the apart. top for two feet so as to make it more secure. Some small ranches are covered all over the top with web wire. Inside this enclosure are the pens, each of which contains two foxes during mating time, and after the pups come, the mother These pens are divided from each and family. other by web wire or small mesh on both sides of the posts, as a double wall is necessary to keep the foxes from fighting and injuring one another. A hall way runs right through the centre, and doors open into the pens from it. Each of these pens contains a house or den.

These dens are about 4 x 4 1/2 feet with 4-foot 6-inch posts, with a pitch roof about the square. All dens are about this size, but some fox men prefer to have them roofed shed fashion, so that the fox can lie on the top of them comfortably and sun himself. The den has a door in the end about 2 feet by 20 inches. This den is double-boarded on the walls with tar paper between, and well shingled on walls and roof. The floor is also double-boarded with heavy paper between.



Entrance to St. Patrick's Ranch. Christened by the Princess Patricia during the visit of the Royal Party to 3 Prince Edward Island last summer.

Inside the den is divided into two compartments. The kennel is at the rear end, and the entrance to it is a circular opening just large enough for a fox to go through. This is where the young are horn, and it must be very warm and close, so it is double-boarded with an air space filled with dry sawdust or ground cork.



Three Black Fox Pups.

This is believed by the owners of the ranch to be the only photo of pups ever made, as it is difficult to get a snap of a group,

The corners are bevelled off by setting a nar-

row board on an angle from floor make it like a hollow log. Some use a fox kennel, an 18-gallon keg, which is even more like a hollow log which the

fox see's out in his natural element. There is a shoot on one side, four feet long by 71 inches square, with an elbow on it to break the draught. This is the way the foxes go in an out of the den.

All foxes are inspected for tuberculosis or other diseases. Great care is taken to keep them in health.

FEEDING.

They are fed only clean wholesome food. When milk is fed, as it generally is to the young ones, it is whole milk, and only from cows that have passed the tuberculosis tests. They are fed twice a day any kind of wholesome meat or fish. Generally fish twice a week. About one-half pound of meat or fish makes a meal for a grown fox.

Bread is fed to some extent, especially in summer. One feed of bread and one of meat would be the daily ration, but no bread raised with yeast is allowed. Raw eggs are also fed, and are excellent for growth and development. Feeding is a very skilful matter, and the food has to be varied according to the condition of the bowels. Loss is sure to result from carelessness in feeding, especially in the case of young foxes. Some ranch-men are importing and breeding a very prolific variety of rabbits for fox feed. These rabbits are kept in the outer inclosure of the ranch, and fed on vegetables. It is claimed that they can be very cheaply raised, and are excellent feed for foxes.

This time of the year the fox men are competing with the butchers in buying the poorer class of cattle to supply feed for ranches.

MATING.

It is claimed that foxes in this wild state are not addicted to polygamy, or even bigamy-so most breeders think it safer to mate them singly. Some have had good success with mating two females with one male. In this ranch nine pups raised from one dog and two females. One breeder said they were trying to make bigamists of them in order to produce more cheaply, by lessening the number of expensive males kept.

They are mated any time from September up to Christmas. At mating the male and female are put together in the pen and left so till about the 20th of March, when the male is removed and put in a separate pen 8 x 8 feet for the rest of the year. This pen is enclosed by a strong wire fence, and is proofed over, and the fox should have access to earth to burrow in. It is thought the best practice to mate the same males and females year after year. might result in no increase.

The boom is as strong as ever, and almost all of next spring's crop of pups are sold ahead. They are bar ained for by paying a deposit of 10% in advance, and the balance when they are

ready for delivering. Quite a number of black foxes are being imported from Newfoundland, and quite a number of blue foxes have already been brought here from Alaska. It looks at present as if this island in the near future would develop into a big fur farm. But dame fashion is fickle, and as soon as the common people can buy and wear black fox fur, then wealthy aristrocrats will have to adopt something else, which the tyranny of fashion will adopt in its place. But this day is believed to be somewhat distant.





A Fox on the Roof of His Den.

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THE DAIRY.

Casien and Fat Content of Milk at Ontario Cheeseries, 1911 and 1912.

Prof. H. H. Dean discussing casein and fat in milk at Ontario cheeseries laid particular stress upon casein and the great need of knowing more about the composition of milk and dairy products in Canada. He said in part:

We know comparatively nothing regarding the composition of milk, which is the basis of intelligent improvement in the future. From the small amount of work done during the past two seasons, we are led to believe there is a marked variation in the composition of milk as delivered at Ontario cheese factories, so far as casein and fat are concerned. Who knows how much albumen, ash, sugar and water there is in Ontario milk, and what part these play in the manufacture of cheese and other dairy products?

For a long time, scientists, as well as practical men who had studied the question, thought it was necessary to consider milk-fat only when discussing the relation of milk constituents to cheese manufacture. The danger now is of considering casein only. After a careful study of this question during the past five years, I have come to the conclusion that it is practically impossible to consider either one of these alone, in its relation to cheese-making. It is possible that other milk constituents may also play an important part, but it is certain that these two, case n and fat, are the principal milk constituents concerned in the making of Canadian cheddar cheese. While we have been taught that each imcrease of a fraction of a per cent. of fat in the milk, means an increase of so much in the yield of cheese (some have been bold enough to say an increase also in the food value of the cheese), and now we are told that there is a relation between casein content and cheese, make bold to say that the foregoing are impossibilities, strictly speaking. These two, casein and milkfat, must be considered together. Without casein and milk-fat it is impossible to make good Canadian cheddar cheese. So far as the work at Guelph has gone, it indicates that there is no absolutely definite relation of casein to milk-fat required in normal milk, in order to give the best results in quality of cheese, although future investigations may cause a modification of this statement.

Prof. Dean referred briefly to the work done at the O. A. College, Guelph, on this question. The tests for casein and fat of the vats of milk used in cheese-making during the five years,

1908 to 1	.912 inclusive,	averaged as	follows:
		Average P	er Cent.
		Casein	Fat.
1908		2.39	3.67
			3.60
		0 4 0	3.60
			3.58
			3.56

The tendency is towards lower average percentages of casein and fat in the milk that has been delivered at Guelph during the past five seasons from practically the same patrons each year. By months, we find the lowest average percentages for casein and fat usually in July and August and the highest in September and October, the latter probably due to advanced

During these five years one experiment was made each week during the cheese season of May to October, by dividing the milk of the patrons into two lots. Milk testing comparatively high in casein and fat was put in one vat, and milk with lower casein and fat content was put in another vat. The results of these five years' tests, consisting of 79 experiments in which over 82,000 lbs. milk were used, is as follows:

These results show an average increase of 51 lbs. cheese per 1,000 lbs. milk, where the average fat and casein contents of the milk were increased .28 and .2, respectively. We thus see that a very slight increase in the percentage of fat and casein in the milk from which cheese are made has quite a marked effect on the yield of cheese. The average for the five years' experiments is 101 lbs. more cheese per ton of milk, worth at least one dollar to the patron or producer of such milk. The average yields of cheese, per pound of fat and per pound of casein in the milks are slightly higher from the lower fat and casein lots. The average percentages of moisture in the cheese, one month old, were 34.9 and 34.8-very little difference. The fat in the cheese was determined for the years 1911 and 1912. The cheese from the lower casein and fat lots averaged 35.58, while those from the higher casein-fat lots averaged 36.3 per cent. fat. average scores of the cheese were 91.24 and 91.87 out of 100 respectively, for the two-low and high casein-fat lots. The average pounds of cheese made per pound of casein-fat in the milk from the lower testing lots was, 1.57; from the higher testing lots, 1.53.

To supplement the college work experiments were carried on at several factories, a composite test having leen made of about ten patrons' milks at each factory for fat and casein, and as many

for the factories visited in Western Ontario, and 3.50 for Eastern Ontario, averaging 3.49 in both for the two years.

The striking points about these results are the comparatively wide variations in the percentages of casein and fat found in the different patron's milk at these factories, and the closeness of the averages for both years are in both groups.

These results are based on tests of nearly 500 patrons' milk in each of the years 1911 and 1912, and represent about 8,000 tests in 1911 and 7,000 in 1912; a total of about 15,000 tests for casein and 15,000 for fat in the two years, a total of 30,000 tests altogether.

In order to obtain some data on the relation of casein and fat in vats of milk at these factories and the actual yield of cheese in 1912, a number of tests were made and the weight of green cheese as often as possible obtained. It was found difficult to obtain the weights of cheese exactly, as some curd would be left over from a vat or vats, but fourteen tests were fairly satis-The weights of milk in the vats of factory. these tests varied from about 4.000 lbs. to 22,-500 lbs. The percentages of fat in the milk of these vats ranged from 3.4 to 3.7; the percentages of casein from 1.9 to 2.4. The weights of green cheese in one lot varied from 3451 lbs. to 2,0243 ths. The range in pounds of cheese made per pound of fat-casein, was 1.44 to 1.67 and

averaged 1.59. This figure is a little higher than that got at the O. A. C., where the average was 1.55, but the O. A. C. results are based on weights of cheese one month old, whereas the foregoing factory average is based on weights of green cheese, and we should expect a high number in that case.

Testing milk for case in and fat at cheese factories in both Eastern and Western Ontario shows a marked variation in the caseinfat content of Ontario cheese factory milks, which fact rooms to the importance of paying for milk at cheese is according to its cheese making value, which

value is largely determined by the casein-fat content of the milk. Until a practicable casein-fat test is evolved, we may test for milk-fat and casein separately by the Babcock and Hart or Walker methods, or adopt the plan of "Fat plus 2," which is near enough for all practical purposes, with normal milks.

BUSH FOR SHELTER GUARD FENCE 4" HIGH, CONSTRUCT SAME AS 7 8 6 5 4 3 2 9 10 11 12 13 14 15 **1101** WAY OOR L 24 23 22 21 20 19 18 17 27 25 26 28 29 30 31 32 GUARD FENCE

Plan of a Fox Ranch.
Within the guard fence is a 40-foot belt of bush.

vats of milk as possible tested, and the weight of techese made from these vats wherever practicable U

Six factories were visited in Western Ont. in each of the two years, and four in Eastern Ont. in 1911, and 6 in 1912.

The highest, lowest and average percentages of casein and fat in the milk of these two groups, for the two years are as follows:

202 0220 0	110 3000	210 002 0	000 10110	4410 0		
W. Ont.	Per C	ent. C	asein	Per	Cent.	Fat
	High.	Low.	Ave.	High.	Low.	Ave.
1911	2.90	1.6	2.26	4.5	2.7	3.42
1912	3.10	1.6	2.21	5.8	2.1	3.54
E. Ont.						
1911	2.70	1.6	2.35	4.3	2.6	3.50
1912	2.60	1.6	. 2.08	5.3	2.7	3.50
Av. two	season	S.				3.49

milk with lower casein and fat content was put in another vat. The results of these five years' tests, consisting of 79 experiments in which over 82,000 lbs. milk were used, is as follows:

Note that the second of the second o

,200			years,	2.22.	The r
Α .	PTOT	LOW	CASEIN	AND	FAT

		A.	LOTS-L	OW CASEII	N AND FA	L.	
Year	Av. % fat in milk	Av. % casien in milk	Av. lbs. cheese per 1,000 lbs. milk	Av. lbs. c	heese per	Av. % moisture in cheese one month old	Av. Tscore, Max. 100.
1908 1909 1910 1911 1912 Av. five years	3.51 3.53 3.53 3.47 3.42	2.32 2.34 2.44 2.23 2.08	88.40 90.32 92.70 90.91 90.70	2,51 2,56 2,62 2,62 2,64 2,59	3.85 3.86 3.79 4.07 4.33	35.40 35.04 35.30 35.29 34.50	91.90 \$90.86 90.13 91.25 92.09
		В	LOTS—I	HIGH CASE	IN AND FA	Т.	
1908 1909 1910 1911 1912	3.75 3.70 3.86 3.71 3.84	2.46 2.49 2.65 2.43 2.36	94.50 93.90 97.34 97.31 96.23	2.52 2.56 2.50 2.60 2.50	3.84 3.77 3.68 3.96 4.02	34.4 34.8 35.1 35.3 34.5	91.70 91.03 \\ 91.18 \\ 92.51 92.97
Av. five	3.77	2.48	95.85	2.53	3.85	34.8	91.87

POULTRY.

How to Fill the Egg Basket

How to Fill the Egg Basket.

Keep the hens warm, the hen-house well ventilated, and as bright and sunny as possible. Provide a dust bath, using dry road dust, wood or screened coal ashes.

Keep the hoppers full of oyster-shell, ground bone and charcoal.

A constant supply of pure water is most im-

portant.

Have a rack filled with clover to supply the

necessary green food.

Feed "meat scraps" in mash, three times a

Feed "meat scraps" in mash, three times a week, during cold weather, in proportion of 2 lbs. to every thirty-five hens. Feed a variety of grain and make them scratch for all they get.

RATIONS.

Dry mash for laying hers.—Feed daily in small quantity.

1 part bran.
1 "ground oats.
1 "cornmeal.
1 "shorts.

1 " crushed barley.

MASH 2.

Table scraps, kitchen waste, small vegetables, porridge, vegetable parings, left over skim-milk or buttermilk. Mix with ground grains, in proportion of one-half waste to one-half ground grains. Feed warm three times a week, in quantity of two lbs. to 15 hens.

SCRATCHING FEED.

The combination of 30 lbs. of oats, 10 lbs. of wheat, 10 lbs. of barley, and 15 lbs. of buckwheat will give a large number of eggs of finest flavor, bringing two cents a dozen over market "ONE WHO KNOWS."

It is based on a practical experience with poul-

try of over twenty years. My hens have each Poultry Work in Ontario County. supplied an egg daily, with the exception of a few days, for months on the rations given.

Poultry for Profit.

Poultry-keeping is being considered, from a commercial point of view, much more now than it was a few years ago, and it is encouraging to find that such a deep interest is being taken in this most important branch of agriculture. Although there has been such a marked improvement in poultry-keeping, there is much more to be done, and I cannot help thinking that if properly looked after poultry can be kept both in town and country and be very profitable to their owners, who themselves are better, alike in health and pocket, whether their fowls are kept in small or large numbers.

It must be remembered that fowls must be kept clean and healthy, and for the encouragement of those who have only a backyard let me state that it is quite possible to produce as many, if not more, eggs during the winter months in small confined runs than farmers can whose fowls run about on the farm with plenty of liberty. Nothing stands in the way of anyone keeping fowl if they are kept on the right principle. One reason why poultry should be kept and studied more is that they are able to convert all the refuse from our tables into good and delicious food, and the larger the family the more scraps there are wasted, as a rule. For these scraps I keep an iron pot on purpose. When I empty it in the morning, I half fill it with water and set on the back of the stove. Into this goes all the scraps from the table, scrapings from the plates, refuse food, potato peelings, etc. This is all boiled up through the day and in the morning is mixed up with bran and shorts to a crumbly condition and given to the hens for their morning meal. It is astonishing to see the large amount of refuse food which is daily thrown away, which might easily be converted into eggs

Those who cannot afford a bone-cutter, in which ordinary green or fresh butchers' bones can be ground up or crushed daily, should purchase it: otherwise, as nothing so much as a green bone ration gives vigor and bone to poultry and greatly increases egg production. If poultry-keepers would give their birds green bone, the eggs will always prove more fertile and the chickens hatched will be hardier, as the composition of green bone contains nearly all the elements of an egg. Finely cut clover or alfalfa as a winter feed deserves to be better known, as it contains the elements necessary for egg production and is a natural diet. A great many poultry-keepers use it with great success, as it has been found to be high in nutriment and feeding value in itself, but when mixed with cereals and a small quantity of meat, it is one of the best substitutes for grass and insect life that we have. Out clover is admirably suited for fowls in close confinement and will insure plenty of rich eggs. It is equally good for fowl at liberty, and is largely responsible for a rich color and flavor of the yoke, also for exceptional vigor in the male bird, thereby ensuring greater This food when allowed to stand, after being moistened very much, increases in bulk and becomes of a spongy texture, enabling the fowls' stomach juices to permeate the mass. Clover and clover meal, particularly alfalfa clover, I have found has been largely used in laying competitions and contains a large percentage of protein and carbohydrates, which, together with the lime and salts it contains, makes it most important in a winter diet.

It is necessary now that fowl be confined to a certain extent, but that plenty of exercise be taken. If let fill up on grain or soft feed, and not compelled to exercise, fowl will very soon become a back number.

It is not an expensive matter to provide two or three inches of straw, chaff or dried leaves, and to rake all the whole grains fed into this. I consider it a most satisfactory sign of health and vigor to see my fowl busy scratching from early morning till night, and those who follow this plan have good results.

Another point worthy of consideration is that scratching sheds tend to economize the grain given to poultry, and there is no waste as when it is carelessly scattered on the ground.

Apart from the feeding, farmers should endeavor to introduce new blood into their flocks every year in the shape of pure-bred males from the best laying stock obtainable. By doing this, they can in a very few years greatly improve both the laying quality and the appearance of their flock, no matter how mediocre it may have been to start with.

Carleton Co., Ont.

I think "The Farmer's Advocate" is the only magazine worth turning the pages. Orfario Co., Ont. FRANK DISNEY

The pioneer county in this province, as far as co-operative poultry production and marketing is concerned, is the good old live-stock county, Ontario. About four years ago Whitby, the county town, saw the advent of a district representative of the Ontario Department of Agriculture. This man, J. H. Hare, a graduate of the Ontario Agricultural College, opened an office and began work among the farming community of the county. Various lines of work were followed, as is done in all these offices, but seeing the possibilities of the poultry industry and realizing the indifferent attitude, on the part of a large percentage of farmers, towards poultry, Mr. Hare determined to

The House in Which the 30 Pullets Made the Good Returns.

points in his work. Seven poultry circles have been established with 500 members. Each circle has seven directors and the manager gets a small percentage on all eggs handled, while the producers have received a considerable increase in price of eggs over that paid by local buyers.

In connection with the work a demonstration breeding station has been established. The demonstration house, as shown in the illustration, is not a large one. It is situated on the farm of Mrs. S. L. Brown, President of South Ontario It is situated on the farm Women's Institutes, who started with thirty purebred Barred Plymouth Rock pullets in the fall of 1911. Previous to getting these birds, which were of very ordinary quality (not bred to lay), Mrs. Brown had not been able to get winter These pullets were early-hatched, and commenced to lay in November. In November, 1911, they produced 12 eggs; in December, 162 ergs; in January, 299 eggs; in February, 353 eggs; in March, 472 eggs; in April, 663 eggs; in May, 528 eggs, and from June to October 31st, 1,200 eggs; a total for the year of 3,689 eggs, and an average of 123 eggs per hen. Very good for the common hen. Eggs from these pullets were sold for hatching, but the price was limited to 30 cents per dozen (not much higher than circle prices) and male birds were sold for \$1.00 per bird (very little in excess of market prices).

penses for feed were \$37.80, leaving a profit for one year, from 30 pullets, of \$184.84.

That there is an advantage in breeding good stock was shown by the results from this flock. The thirty original birds, which composed the flock, laid in December, 1911, 162 ergs; while the same number of pullets in December, 1912, the pullets being sired by a bred-to-lay cockerel obtained from the O. A. C., Guelph, produced 360 eggs.

These are results which are doing much to convince the people of Ontario County that there is money in poultry properly attended to. The house is an inexpensive one. Note the open or curtain front.

Mrs. Hare is now putting forth every effort to affiliate all the various egg circles in the county make this phase of agriculture one of the main under one management with head quarters to be

situated at Brooklin, where the circles will have their own storehouse and candler, and where eggs will be put up in the circle's cartons and everything operated by the people composing the circles themselves. The magnitude of the business may be estimates when we consider that between \$12,000 and \$15,000 worth of business has been done by the Cannington Circle alone during the past year. When all the oircles come under this central management, the business is likely to grow until it covers the entire county, and is sure to mean many thousands of dollars to the

farmers of the county. The average "dunghill" flock is being changed into a profitable productive, well-housed, well-fed and well-bred flock, with results which cannot but increase the improvement.

Besides this work Mr. Hare and his assistant, Mr. Hogarth, have visited 448 farms, making an investigation into the business to find out the weak points, and to plan their work of bettering conditions. They know whereof they speak on poultry and poultry conditions, and are sure to make great progress in improving the poultry business.

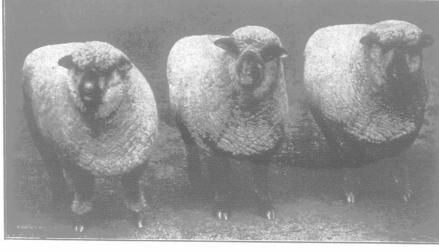
Drainage and orchard demonstrations have been held; short courses are put on each year and everything possible is being done to educate and interest the agriculturists of the county in their profession, and to help them to increase their cash returns which are always the measure of man's success.

ORCHARD. GARDEN

Handling Orchard Soils.

"Probably the best scheme ever devised for handling the majority of orchard soils, where the

lay of the land will permit, is a combination of clean cultivation with cover crops,' says Professor Wendell Paddock, of the Ohio College of Agriculture. "This method includes the plowing of the land as early in the season as the wegther will permit. The plow is followed, at intervals, by the harrow, in order that the surface of the soil may be kept mellow throughout the growing season. Usually in the latter part of July or the first of August, at the close of the growing season for trees, a crop of some kind is planted and this is allowed to occupy the land until the



Oxford Down Yearling Wethers.

First in class, and winners of breed cup, at Smithfield. Exhibited by Miss Alice de Rothschild.

The eggs sold brought \$88.84, exactly \$7.12 is plowed again as early as possible, and this is more than if they had been sold through the followed by clean cultivation and a cover crop as circles, which was very little advantage from be-before." ing sold for hatching. Poultry sold live and dead brought \$78.68; poultry now on hand, \$45.20; poultry consumed, \$10.00; a total for poultry of \$133.80. Add to this \$88.84 received for eggs, and a grand total of \$222.64. The total ex-

Have taken "The Farmer's Advocate since

1891 continuously, and consider the price money well invested. JOHN A. CAMPBELL.

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THE FARM

Battling with Bindweed.

Editor "The Farmer's Advocate":

I have noticed several articles in 'The Farmer's Advocate' about killing bindweed. Perhaps our experience might be useful to someone. We had a small field of four acres badly infested with it. I think we got the seed with mangel seed which we had planted in that field for a number of years. In the spring of 1911 we plowed the field as soon as it was dry and disked and harrowed till nice and fine. After that, we used the cultivator every few days, or just before the weed got above the surface. I think just once it got ahead of us while we were busy with the hay. We continued this method till the first of September. Then we gave the field a good coat of barnyard manure and plowed it in and seeded it with wheat. The ground was in such fine tilth the wheat came up quickly and soon covered the ground. In the spring, after the snow had all gone, we examined the field and, to our surprise, there was lots of the weed. It was small, but quite green. When the weather got warm, the wheat grew very rapidly and became a thick, heavy crop. When we cut it, there was scarcely a stock of the weed to be seen. As soon as the crop was off, we plowed again, intending to continue the cultivation, but the heavy rains stopped us. Had the weather been favorable, the victory would have been ours. The cultivation weakened the weed and the ground being rich (which is all-important) the wheat smothered it. Bruce Co., Ont.

Bruge Co., Ont. G. H. R.

THE FARM BULLETIN.

Progress.

By Peter McArthur,

At last this part of Ontario has made a step forward. A Fruit-Growers' Association has been organized at Glencoe, and preparations are being made to handle the orchards of the district properly. I have been told that thirteen thousand barrels of apples were shipped from this neighborhood last year, so we certainly have the goods to deliver if we go at the work with a To me this seems the most progressive atep taken in this district in many a year. If it is successful, and I see no reason why it should not be, it will probably mean the transformation of the whole country side in the course of the next ten or fifteen years. The land is admirably adapted to the production of good apples. This is amply proven by the fruit produced in the orchards that have been cared for properly, and visiting horticulturists have been unanimous in saving that apple-growing is our logical industry. Of course, it will take years to convince some people that they should plant out orchards; but when they see proper results from the orchards already in existence, they will gradually fall in line. Unquestionably it takes many years to get young orchard bearing profitably, and this gives a chance to the wise owls, who exist here, as elsewhere, to hoot dismally: "You will never live to get the good of your tree-planting.' Perhaps not, but I have heard that doleful remark before, and the answer is simple. Developing an orchard is like putting money in the bank-only better. If you stop to think it over, you will realize that you will never get the good of the money you put in the bank unless you spend it, and you have no intention of doing that, have you? You intend leaving the money you save to someone else. Well, wouldn't it be just as well to leave that money invested in an orchard, especially as it will increase in value in the land much more rapidly than it will in a bank. And the heirs to whom you leave a good orchard will have a permanent source of income, while the money in the bank might be lost in one flyer in a bucket shop. The argument is all in favor of planting an orchard.

At the meeting which was held for the purpose of organizing the association there was a discussion of the problem of selling that interested me greatly. The prevailing opinion seemed to be that we should try to organize a county association. It was held that the more powerful we were, the more likely we would be to get good prices from the buyers. As the problem of the high cost of living is never long absent from my mind, I could not help seeing that the work we are doing here gives little promise of cheaper rates for city people. Apparently all it is hoped to do is to compel the buyers to give up fair treatment and to exact from them a share of the profits they are making. If this has any result at all in the cities, it will be to force prices still higher, for what the dealers give up at one end

of their transaction they will try to get back at It is hard to see how the cost of living can be reduced in the cities until Consumers' Leagues are organized, or at least Retailers' Associations. If there were organizations in the cities that could handle the products of the country organizations, competition would soon bring down prices to a normal level. Of course, the present middlemen would be eliminated, but considering the character of the service they have been giving of late years, they deserve little sym-There are altogether too many men making their livings between the producer and the consumer, and it is time that something was done to weed them out. The distribution of products by the transportation companies and middlemen in some cases costs many times as much as the production, and in order to pay profits to all the intermediaries, both the producers and consumers are being robbed. I suppose, from the point of view of many producers, it does not matter much what the consumers have to pay if the producers get a decent profit. But this is a mistake. If consumers can get apples and vegetables at a fair price, they will use more and the demand will be greatly increased to the producers. In this way it is as important to the producer as to anyone else that the consumers should get fair treatment, and the consumer cannot get fair treatment until we have a co-operative system of distribution that will put an end to such holdups as have been experienced in the past.

The work of county advertising that is now in progress in various parts of the country is also interesting. Having had some experience in the advertising business, I learned a few things that impressed me greatly. To begin with, "Hot



Lewis Toole.

President-elect, Ontario Agricultural and
Experimental Union.

air," although very popular, is about the poorest kind of advertising known. H. R. Haxton, the man who advertised the Encyclopaedia Britannica so that even the babies cried for it, and everybody who couldn't afford it bought a set, once told me that he could sell mud by advertising, but he could sell it only once. He expressed the whole philosophy of advertising in this way.

"You must have a good thing to sell; you must believe in it, and then you must tell about it so that other people will believe in it." had an opportunity of studying his methods somewhat closely, and the fact that he sold over four million dollars' worth of books in less than five years proves that his methods were good. He never indulged in "Hot air." Before beginning his campaign, he knew the Encyclopaedia Britannica better than any man living, and knew every use to which it could be applied. When he began to write his advertisements, he dealt only with facts. Of course, he made those facts amazingly attractive. I happened to be in London, England, when his advertising campaign was at its height. He had full-page advertisements in the papers every morning, and people read them before they did the news of the day. ' Premier

Balfour even quoted from one of the advertisements on the floor of Parliament. It was probably the most skilled piece of advertising ever known, and it was at the same time a model of what advertising should be. If Haxton were advertising one of our Ontario counties, I imagine he would go about the work somewhat as follows. He would learn the history of that county from the time of the first settler. He would get careful records of all industries that had succeeded in it. To this he would add a list of all the property for sale in it, and would classify this property according to the lines along which it could be most profitably developed. He would find out the actual demand for labor within the county, the wages that would be paid, the hours of labor, and other conditions. From this mass of material he would work out the opportunities afforded by his county to men of all classes and would go after those men. Every opportunity he described would be a real one, and he would see to it that a full statement of that opportunity reached the right men. Some advertisers seem to have an idea that all you have to do in an advertising campaign is to "Holler." Noise will, of course, attract attention, but it will not necessarily lead to the transaction of business. Every county in Ontario is bristling with opportunities for the right kind of men. If our advertisers will only work out what these opportunities are, tell about them convincingly and get their advertisements into the hands of the right people, they cannot fail to achieve permanent results. Haphazzard, hot-air, advertising would do little more than bring people who should be seeking homesteads into counties where men cannot start without capital. The older counties of Ontario are no longer a poor man's country, and the population they need is not of the kind that comes through the ordinary immigration charnels. They should be advertised to the substantial farmers and business men of the old land, to whom enlarged opportunities might appeal. While it is true that good advertising is one of the most profitable forms of investment, there is no easier way of wasting money than by poor advertising.

Parcel Post for Canada.

In the Canadian Parliament last week Hon. L. P. Pelletier, Postmaster General, announced that he expected to introduce legislation providing for the establishment of a parcel-post system in Canada, but it would probably not be possible to adopt a flat rate, as in the case of ordinary mail. The minister stated his position, in response to a motion proposed by the former Postmaster General, Hon. R. Lemieux, "that in the opinion of the House the establishment of a cheap parcel-post system would be to the advantage of the consumers of Canada." During the discussion, it was shown that other countries have s parcel-post, the latest to act being the United States, where it went into operation on January 1st, and had already developed enormously. In fact, the Canadian postal system was now deluged with such mail from the United States particularly. As it is, Canada is carrying the parcels of other countries at low rates, but not her own In the States it is said that during the first week of operation over 4,000,000 lbs. of such matter had been carried, though it had been long opposed there by the express companies and other interests. It is intimated that objection comes from local merchants, but the real opposition is evidently from other quarters. In the Postal Department a number of petitions were received against parcel post, but these were all type-written and in the same phraseology, so that they were believed not to be individual protests. Judging by the observations of several members of the House, public sentiment is growing strongly in favor of parcel post, and its institution is a foregone conclusion. Hon. Mr. Pelletier intimated that the elaborate zone system of the United States would not be copied: It is thought that the plan may be by territorial zones, based on provincial units. it was stated that rural mail delivery development would precede that of parcel post. The Canadian railways, it was stated, now receive two-million dollars a year for carrying the mail.

Lost Without It.

Please find enclosed P.O. order for \$1.50, being my subscription for the coming year. Kindly change my address, as I have left the city and bought a small farm close to the city, and must continue to have our old friend, "The Farmer's Advocate," which we would all feel lost without.

without. Frontenac Co., Ont. J. E. JOHNSTON.

Our Western contemporary says that there is strong evidence proving that there is a scarcity of pure-bred hogs in the Canadian West.

Again at Woodstock. estern Dairymen

No matter how full and neaty a program may have been discussed at the Eastern Ontario Dairymen's Convention, considerable that is new always remains to be brought out at the Western held the ensuing week. While many of the papers given at Woodstock on Wednesday and Thursday last duplicated those read at Kingston, there were several exceptions, notably Prof. F. C. Harrison's address on fishy flavor in butter and Prof. Harcourt's, entitled, "What is cheese?" Professors Zavitz and Edwards on alfalfa and legume inoculation and Prof. Dean's report on three years' investigations at the O. A. C., in the preface to which he proposed utilizing moving picture shows and enacted drama to spread agricultural knowledge on the farm.

A milk supply maintained well on to the end of the season, and high prices for cheese from April to November were two encouraging features of the situation commented upon in the Directors' report read at the opening session by President D. A. Dempsey. he butter market has been active and prices indicate a strong demand from the growing home market.

Several new creameries and cheese factories were built during the past season, and it is be-lieved that factory buildings are being improved as rapidly as funds will permit.

Scarcity of labor is rapidly becoming a big factor in limiting milk production. Competent assistance for factory work is also becoming more difficult to secure. With multiplying demands for milk and cream, producers were never in a better position as regards prospects for markets and prices.

CHEESE FACTORY CONDITIONS.

A greater number of patrons cooled their milk last year, and the majority of makers did good work; therefore, the cheese was, on the whole, perhaps superior to other years, said Chief Instructor Frank Herns, in his report on Dairy Instruction and Sanitary Inspection. Among other points from the very concise report we observe:

The estimated average per cent. of fat in the milk supplied by 12,367 patrons was 3.42. estimated loss of fat in the whey was 21 per cent. Five cheese factories made whey butter.

Fourteen factories have ice cool-curing rooms and five have sufficient insulation to control the Twenty-seven factories paid for temperature.

milk by test Eighty factories pasteurized the whey and eight fed all or a portion of the whey at the

Fifty-four patrons pleaded guilty before police magistrates to delivering deteriorated milk, and

fines of from \$5 to \$50 were imposed. AN EXAMPLE FROM THE INDIANS.

G. G. Publow, Chief Instructor in Eastern Ontario, told of one factory in his territory supplied altogether by 14 Indians, all of whom have been cooling their milk this season with a marked result in quality and yield. This is the only factory in Eastern Ontario where all the patrons are cooling their milk.

INVESTMENT IN CREAMERIES.

Eight new creameries were built at a cost of \$46,300, and \$37,253 was expended in general

The quality of the butter made at 115 creameries and combined factories visited was fair. considering that practically all Western Ontario butter is made from gathered cream. Some complaint was heard regarding the weak texture of a portion of the fall make, and fishy flavor had been moticed in a few lots coming from storage. The average per cent. of fat in cream delivered

was 26.25 per cent. Thirty-nine creameries have installed the scales for weighing cream samples. Only six creameries use the oil test.

For collecting cream, 27 creameries use large cans, 10 used jacketted cans, 44 have individual cans, and 13 employ cream tanks.

Out of 527 creamery patrons visited by a special instructor, 90 per cent. had abundant water supply, but only 35 per cent. cooled the cream in water, while only two per cent. cooled it in iced water, and 50 per cent. still cooled it in the cellar. Only 65 per cent. of the hand separators were washed each time after using.

THE DAIRY-HERD COMPETITION.

A dairy-herd competition was conducted on much the same general lines as last year. Prizes were offered for patrons of cheese factories and creameries who furnished the largest amounts of milk and butter fat respectively per cow from May 1st to October 1st. In each class were two sections-one for patrons with 8 to 14 cows, and one for patrons with 15 cows or over.

THE WINNERS.

Cheese Factory Patrons.

Sec.1-First, Geo. Pearce, Tillsonburg, Miller's Corner's Cheese Factory-100 acres in farm-14 grade Holstein cows-98,358 total lbs. milk-7,025 lbs. of milk per cow. Second, W. H. Mason, Tyrell, Tyrell Cheese Factory-130 acres in farm-9 Holstein grade cows-58,810 total lbs. milk-6,534 lbs. of milk per cow. Third, J. A. Thistle, St. Pauls, St. Pauls Cheese Factory-100 acres in farm-10 Holstein grade cows -63,964 total lbs. milk-6,396 lbs. of milk per

Sec. 2-First, S. G. Sangster, Rebecca, West Nissouri Cheese Factory-150 acres in farm-19 Holstein grade cows-119,117 total lbs. milk-6,-263 lbs. of milk per cow.

Creamery Patrons.

Sec. 1-First, R. M. Bowie, Beachville, Beachville Creamery-50 acres in farm-9 Holstein grade cows-2,375 total lbs. milk-fat-263 lbs. milk-fat per cow. Second, Geo. Bourchier, Flattsville, New Dundee Creamery-25 acres in farm-8 Jersey grade cows-1,370 total lbs. milkfat-171 lbs. milk-fat per cow.

Sweepstakes Medals.

Geo. Pearce, Tillsonburg; R. M. Bowie, Beach-

Letters from three of the successful competitors were read at the convention by Secretary Herns. Geo. Pearce wrote in part:

"For the winter season from Jan. 1st, 1912, the cows are dry till about the last of March. The cows are fed silo-feed and bran while milking, and when dry they are fed hay.

"In the summer the cows are fed silage and bran. The cows are given ahundance of pasture during the summer months. Each animal is fed half a bushel of silage and about four pounds of

The cows freshened from February 20th to April 4th in the spring, and when they have their season complete, I am sure the total of the nine cows will be over 108,000 lbs. milk.

"We keep daily records, and the seven purebreds are all in Record of Performance work, 80 we know the test of the different cows as well as the milk production.

"I believe if we could induce all dairymen to test their cows and keep records of milk production and feed consumed, it would be but a few years until only good cows would be seen on Canadian farm.s

J. A. Thistle:-"Have been keeping a pure-bred Holstein sire for the past ten years, and raise most of the heifer calves. We have our cows freshen as early in the winter as possible, as it gives a much better chance to raise the calves, especially when the milk goes to the cheese factory, and we think winter dairying is just as profitable as summer dairying, if not more so. We have been feeding some brewer's grains for the past two years, and find it a great help in keeping up the milk flow, especially when the grass begins to fail. We had only a very small supply of silage for last summer, as our silo was very nearly empty when the cows went to grass in the spring, but would very much like to have a small silo just for summer feeding, as it is not a safe plan to depend on grass alone. We weigh each cow's milk and keep daily records, and think it is time well spent as it gives a correct account of each cow for the season, and is a sure way of locating the boarders."

PRACTICAL POINTS ON ALFALFA.

If one's land is perfectly clean and in good heart, he may sow alfalfa seed with considerable assurance of success on fall wheat, early in spring, scattering the seed on the snow as many bran for each ration. They are fed twice a day. sow clover, said Prof. C. A. Zavitz in a much

appreciated address upon alfalfa. He had experimented with this method during the past four seasons at the Ontario Agricultural College and had found that the little alfalfa seedlings would stand a great deal of frost. The land, however, must be very clean, else seeding with wheat is not likely to prove very satisfactory. adian blue grass is one of the greatest enemies of alfalfa. He had had about two-thirds good results seeding with oats as with a bushel of barley per When seeding with spring grain sow the seed in front of the drill tubes, and harhow lightly afterwards. If the landneeds cleaning, a first-class method is to summerfallow thoroughly until July and then sow the seed alone. Do not

much top, clip with the mower and leave the clippings on the ground. In the average of fifteen years' experiments at Guelph, yielding an average of three cuttings a year, the average weight of green crop was a little over 20 tons per annum, and of cured hay, four and four-fifths tons. He had been on fields which had been growing alfalfa hay or hay and seed for twenty years without manure. He suggested ensiling the third cutting mixed with

In reply to an objection from the audience that alfalfa had been tried and proven a failure in Oxford County, Prof. Zavitz asked for a show of hands from those who had grown alfalfa in Oxford Co., and believed it could be grown there with a considerable degree of satisfaction. Over a score of hands appeared, against which but one contra was recorded. However, Geo. A. Putnam, Superintendent of Farmer's Institutes, rose to observe that his workers had encountered in the county a good many instances of difficulty in maintaining a stand. Possible explanations suggested by the speaker were the sowing of a tender variety of alfalfa, sowing on land with a cold, wet, subsoil, and lack of inoculation. The variegated alfalfa, introduced from Europe into the Niagara Peninsula of Ontario and rather against the herd average for six months. now known as the Canadian Varlegated, is much



Jersey Cow Rising Three Years. Property of A. T. Springate, Island of Jersey.

"I am a firm believer in feeding no straw If the stand is in danger of making too whatever at any season of the year.

"In spring, when the cows freshen, they are fed some oat chop besides the regular rations. "I keep a pure-bred sire."

Wallace H. Mason :-

"A pure-bred Holstein sire has been the foundation of the grade herd, but now all the young stock is pure-bred and seven of the nine cows are Holsteins, the other two being grade Holstein.

"During the month of May the cows received what hay and silage they would eat until they went, out to pasture, and during August, September and October they were given green corn for bulky feed along with pasture. The grain ration varied during the season. In the early part fed Manitoba wheat chop, shorts in summer, and oats and barley chop after new grain was threshed. The wheat costs 70 cents per bushel, shorts was \$1.30 per cwt., and considering the cost of oat and barley chop this fall, an average of \$1.25 per cwt. would cover the cost of grain for the season. The total amount, which was 3,800 lbs., at \$1.25 per cwt. is worth

"The total age of the nine cows is 37 years, or an average of four years. The first nine days in May we separated once a day, a fact which is of the

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variegated variety is the Grimm, introduced into Minnesota years ago from Germany. Other fairly hardy kinds are the Wheeler or Baltic, the 20th to Sand Lucerne and the Turkestan. The poorest ave their for our conditions is the common alfalfa from the the nine Western States, though of this the Montana seed is better than the rest. The common often proen pureduces a good stand, but in plots at Guelph it work, so s well as of variegated beside it continued strong and vigorous. Investigations show that in Canada rymen to the greatest percentage of variegated is found in produc-We'land and Lincoln, quite a bit in Haldimand. ut a few some in Lambton and small percentages in Waterloo and other counties. The Canadian seen on Variegated seed is the best to sow in Canada, but this year, owing to climatic conditions, the alfalfa seed crop in the Niagara Peninsula is a stein sire

> vide the best possible conditions and try again. Prof. Edwards, discussing inoculation, brought out the fact that a few of the nitrogen-gathering bacteria may occur on the stems and spread over a farm in manure, while a very few may attach to the seed, but not many because drying kills nearly all of them. However, a few introduced by seed or otherwise would multip'y and inoculate a field in time, if the stand survived long enough. Artificial inoculation by treatment of seed or broadcasting of soil from an old alfalfa

failure. In conclusion Prof. Zavitz offered the

very sensible advice not to give up growing

alfalfa because you had encountered a failure or

noticed a few failures. Get a hardy strain, pro-

hardier than the common alfalfa. Another hardy

field saves time.

FACTS FROM THE DAIRY CENSUS.

During the past season the Provincial Department of Agriculture made a dairy survey of four townships among the patrons of 35 cheese factories and creameries. Results are not yet complete, but a few facts, from the survey of North Dorchester Township, were given by Geo. A. Putnam, Superintendent of Farmers' Institutes and Director of Dairy Instruction. Out of 272 farms visited 70 per cent. cooled milk or cream with water only in a tank or some other vessel; 8% cooled with running or iced water; while 15½% had no special provision. Of the 272 patrons 62½% sent milk to a cheese factory, 7% supplied city trade; 13.6% sent cream to creameries, 8% made butter at home, 7% patronized the condensary; while 2.2% were vealing

Taking the best fifty herds, the highest return per cow was \$111, obtained by a man with 18 head supplying a city trade. From the 11 herds supplying a city trade, the average return per cow was \$86.20. From the 13 supplying the condensary, the average per cow was \$75.40; one herd of 40 cows averaging \$75. From 18 factory herds cash returns per cow were \$57.50. From eight herds sending cream to the creamery

the average per cow was \$54.70.

Of the fifty best farms averaging 100 acres, 49 grow corn, 29 have silos and the corn acreage is 14 acres each. On the 19 without silos the corn acreage is 61 acres. The twenty-nine men with silos have 17 cows each, and the 19 without have 13 cows each. If corn and the silo enable a farmer to keep an extra four cows within other out decreasing production should be good practice to go in for them. Thirteen of these best farmers grew alfalfa, and 34 grew an average of two acres of roots.

Cheese experiments and investigations at the O.A.C. during the past three years was the title of a paper by Prof. H. H. Dean, read in his absence by A. McKay, though the author himself arrived near the conclusion of the session and added a few words impromptu. In these informal remarks Prof. Dean, in his usual emphatic manner, asserted three facts:

1.-That the cow population of Ontario is de-

clining. 2.—That our exports of butter have ceased.

3.—Our exports of cheese are declining. The first fact he attributed partly to the testing and culling of our herds, which is reducing the cow population. He thought the time had come to adopt some radical and safe measures to improve the quality of our cows and increase their number. At present, he said, we had no active organization trying to do this. A leading dairy company had lately asked him to prepare an article for distribution on this subject. He did so, attempting to show the advantage of a pure-bred sire. This company now intends to put pure-bred sires within reach of every farmer supplying milk to its plant. "What breed would you advise?" was a question fired from the audience. He wouldn't say as to that, so long as it was a dairy breed. He cited an experience told him by a short-course student designed to illustrate how one generation of grading with the strains of Shorthorn bulls now available would ruin the milking quality of a herd.

A second reason for decreasing production was the lesser profits of dairying as compared with some other lines. A dollar per cwt. is not enough to render milk production profitable.

As a means of enlarging production, he repeated the suggestion offered in his paper. If he were a millionaire, he would make use of two agencies for the spread of agricultural and dairy knowledge-viz., the moving picture show and the drama. Personally, he would prefer the drama, where real persons, animals, appliances and products, with suitable stage equipment and all necessary accesories of music, colored lights, has, in some cases, largely killed out, while plots comfortable seats, etc., which go to make strong impressions, would be utilized to teach agricultural and dairy lessons. Why could not a suitable stage, with clean men and women feeding and milking real cows in a clean stable, caring for milk, separating cream, churning, etc., with suitable music, be made an effective means of teaching the first principles of dairying? This method is the oldest method of teaching morals known to mankind.

> Suppose, he continued, it were intended to teach a lesson in cheesemaking. The actors would be a farmer, his hired man, wife, son and daughter, the milk hauler, the cheesemaker and assistants, the cheese buyer, railway agent and train kands, steamship employees, cheese merchants in Canada and England, retailers and consumers. The scenery in Act I, scene 1, would represent a farm; scene 2, hauling milk. Act II, scene 1, cheese factory and men making cheese; 2, ripening cheese and buyers inspecting; 3, loading cheese on cars and steamboat. Act III, scene 1, cheese landing at English port; 2, receiving at warehouses; 3, retailer's shop 4, pleased or dissatisfied consumers in English or Scotch home, with the necessary dialogue, etc., to make a good drama.

> This novel idea provoked considerable discussion in the lobbies, opinion as to its feasibility being

RESULTS OF DAIRY INVESTIGATIONS. Following are the conclusions from a few of

the experiments reported by Prof. Dean: Night's milk, cooled to about 70 degrees, will keep in good condition for cheesemaking until the next morning and stirring of the milk is not necessary for good results, though stirring did result in a little prompter cooling and slightly lower percentage of acidity.

When milk has over two per cent. of acid at the time rennet is added, or the curd remains in the whey less than one hour, it means a loss of over one pound of cheese per 1,000 pounds milk, and a deterioration of the quality of the cheese represented by a score of nearly one point less. Since high acidity (souring) in milk is promoted by high temperature of milk, the practical point is to have milk properly cooled so as

to keep it comparatively sweet. Closely associated with the question of acidity of milk at time of adding the rennet is the question of acidity at the time of dipping or removal Three years' investigations averaged together indicated that an extra four onehundredths of a per cent. of acid at dipping (.198 per cent. as compared with .158 per cent.) reduced the quantity of cheese per 1,000 lbs. milk by a trifle over half a pound and the average score by over half a point. No one could say just where the danger point lay, but for all milk it probably lay somewhere between .17 and .2 per cent. of acid, varying in different localities and with different kinds of milk.

From another series of experiments Prof. Dean deduced the tentative conclusion that it would appear as if the condition of the curd at the time of salting were quite an important factor in deciding the best rate for salting curds in order to make the finest cheese. The season and character of the milk may also be contributing

Following this paper in discussion, G. G. Publow, Chief Dairy Instructor for Eastern Ontario, endorsed several of the points made. In a visit to England he had heard the complaint that many of our cheese were too lean in character. New Zealand cheese enjoyed an excellent reputation for a certain smooth silkiness of texture which ours did not possess. Looking into possible causes he came to the conclusion that our cheese were too dry, probably owing to two things; viz., having the milk too ripe when adding the rennet, and then over-salting the curd from that kind of milk. A number of district meetings were held in the sections where that trouble was most pronounced. The makers were thus led to set the milk a little sweeter and salt a little lighter, with decidedly advantageous results. They had carried on some experiments and found with Prof. Dean that the riper the milk the higher the yield and the poorer the quality. When the milk is over-ripe, they have been able to reduce the salt by one-quarter of a pound per thousand pounds of milk.

GREEN CHEESE.

The practice of shipping green cheese is still almost universal. At probably 150 factories a week their instructors will find no cheese on the shelves to report upon. Probably from another hundred the word will be "cheese too young too report on."

Incidentally this complicates the work of instruction, since the staff, in those cases, must rely upon the reports from buyers in Montreal. When the market is brisk the buyers pass the cheese on without comment, but when it becomes draggy, complaints come thick and fast.

The Eastern Association, announced Mr. Publow, intends to follow the example of its sister organization, and have a dairy exhibit next year if a national dairy show is not arranged for.

THE DOMINION DAIRY STATIONS. Geo. H. Barr, Chief of the Dairy Division. Ottawa, described the two Dominion Dairy Stations. The combined cheese factory and creamery at Finch, Ont., cost \$7,767.78 for building and site, this being more probably than he could have built it for with private capital. The creamery in Quebec Province cost \$4,000 complete, including sewage. One tender for the contract was at \$7,000, illustrating the difference in calculations. In this case the contractor earned a time bonus of \$223. The buildings seemed well planned, and some interesting practical points are being worked out. For instance to insulate the ice-chamber floor they used eight inches of coal cinders, a thickness of lumber, ten inches of mill shavings and a second thickness of lumber. Below the cinders the floor was carefully drained with 3-inch land tile. How it will work out they cannot say for sure.

Officers for 1918.—President, S. E. Facey, Harrietsville; 1st Vice-President, J. B. Muir, Ingersoll; 2nd Vice-President, Robt. Myrick, Springford; 3rd Vice-President, Jas., Bristow, St. Thomas; Secretary-Treasurer, Frank Herns, London; Directors, S. E. Facey, J. B. Muir, Roht. Myrick, J. H. Scott, J. N. Paget, Thos. Ballantyne, W. A. Bothwell, J. Donaldson, R.

Stratton.

A FINE EXHIBIT.

'In connection with the convention was a very fine exhibit of cheese and butter attractively staged. The cheese were remarkable for finish and uniformity of score, there being, we believe, less than a point difference between the best and poorest.

WINNERS IN CHEESE.

September White.-1, T. O. Flynn, Tavistock, score 96.99 points; 2, J. K. Brown, Ethel, 96.82, (won on flavor); 3, C. J. Donnelly, Scottsville, 96.82; 4, J. Cuthbertson, Sebringville, 96.48; 5, R. E. Hastings, Newry, 96.33.

September Colored .-- 1, Roy Hastings, Newry, 97.17; 2, W. A. Bell, Pine River, 96.32, (won on flavor); 3, J. Cuthbertson, Sebringville, 96.32; 4, Jno. Francis, South Middleton, 96.16, (won on flavor); 5, J. K. Brown, Ethel, 96.16. October White .- 1, J. T. Donnelly, Sparta,

96.65; 2, H. E. Donnelly, Straffordville, 96.49; 3, J. K. Brown, Ethel, 96.48; 4, J. Cuthbertson, Sebringville, 96.32; 5, C. J. Donnelly, Scottsville, 96.16.

October colored.—1, H. Youn, Molesworth, 96.65; 2, R. Myrick, Springford, 96.32, (tie.); 3, R. R. Hastings, Newry, 96.32, (tie.); 4, J. E. Koch, Gowanstown, 96.32, (tie.); 5, T. O. Flynn, Tavistock, 96.16.

September Stilton Cheese (10 lbs.).—C. A. Barber, Woodstock, 96.32; 2, P. Callan, Woodstock, 95.82, (won on flavor); 3, H. W. Hamilton, Monkton, 95.82.

September Flat Cheese (Two).-1, P. Callan, Woodstock, 95.82; 2, C. J. Donnelly, Scottsville, 95.66; 3, H. Youn, Molesworth, 95.50.

Cheese Buyers' Trophy.-R. E. Hastings,

WINNERS IN BUTTER.

Winter, 56-Ib. Box, Creamery.-1, E. M. Johnston, Innerkip, 96.49; 2, H. W. Patrick, St. Thomas, 96.07; 3, R. C. Bothwell, Hickson, 95.66; 4, B. Johnston, Bright, 95.49; 5, J. Cuthbertson, Sebringville, 94.16.

20 1-lb., Creamery Prints.-1, E. M. Johnston, Innerkip, 95.33; 2, Wm. Waddell, Kerwood, 95.15; 3, R. Johnston, Bright, 94.65; 4, T. O. Flynn, Tavistock, 94.49, (won on flavor); 5, H. W. Patrick, St. Thomas, 94,49.

56-lb. Box Creamery Butter .- 1, W. G. Medd, Winchelsea, 95.66; 2, Wm. Waddell, Kerwood, 95.15; 3, J. H. Scott, Exeter, 94.99; 4, 1.0. Goodhand, Corbett, 94.81; 5, H. W. Patrick, St. Thomas, 94.65.

The auction sale of cheese and butter realized the following prices: September white, 12ic.; September colored, 12ic.; October white, 12c.; October colored, 12ic.; Flatts, 13c.; Stiltons, 14c.; Winter Creamery butter, 291c.; October creamery, 28c.; prints, 301c.

OTHER ITEMS.

Among the resolutions was one recommending that cream sent to creameries be cooled whereever possible to a temperature of at least 55 degrees promptly after separating; cool water or ice was recommended for cooling.

A committee was appointed by the directors to confer with committees from any other organizations regarding the advisability of holding a National Dairy Show.

At the final evening session, J. A. Ruddick, Dairy and Cold Storage Commissioner, discussed the work of his branch in the Federal Department of Agriculture, and N. W. Rowell, M. P. P., gave a strong address, speaking along the line of ideals in citizenship.

The addresses of Prof. Harcourt and Dr. Harrison are reserved for publication in full.

Best Printed.

Inclosed please find \$1.50, renewal subscriptiontion to the best farm journal printed. With

York Co., Ont. JAMES HILL.

The Ministerial Order from Ottawa of 16th October last prohibiting the importation or introduction into Canada of any hay, straw, fodder, feed stuffs or litter accompanying horses from Continental Europe, has been extended for a further period of three months from January

Live Stock Ouarters, National Exhibition.

The work of moving the live-stock stables at the Canadian National Exhibition Grounds, Toronto, is now under way, and the accompanying diagram shows their location on the Garrison Commons, to the east side of the old site. The stables are being refitted inside, properly ventilated, furnished with wash racks, and equipped in every way for the exhibiting of live stock. temporary arena and grand-stand is being erected for this year, and plans are being perfected for a grand judging arena, which it is hoped will be erected in 1914. All cattle and heavy horses will be judged in the arena, while small judging rings will be arranged for sheep and swine. estimated cost of this year's improvements is \$125,000. The following is a key to the diagram: 1, old location of stables: 2, main approach; 3, western end live-stock department (see other photo); 4, arena; 5, grand-stand; 6, horse stables; 7, cattle stables; 8, covered arcade; 9, hog pens.

Likes Oilskin Moccasins.

Editor "The Farmer's Advocate":

In your issue of January 9th, D. S. asks for information regarding oilskin moccasins. one having had considerable experience with that kind of footwear, I might say that there is nothing better in the world for his needs, provided he secures the right kind. There are two kinds of oil-tanned moccasins made in these parts-one made in Bala by the Gibson Reserve Indians, and another made by a white man, and both kinds are much worn by the lumber-jacks in these parts, who swear by them. These moccasins are comfortable and warm on the coldest days, and on warm or wet days are positively impervious to water, keeping the feet perfectly dry at all times.

Muskoka District, Ont. GRAVENHURST.

"Ten Acres Enough" is the title of a book on intensive agriculture. Ten acres too much is the idea of a speaker at the recent Experimental Union meeting in Guelph.

Successful Show of Live Stock and Poultry at Ottawa.

The Eastern Ontario Live-Stock and Poultry Show has had another record year, the show which closed on January 17th being in almost every particular the superior of any former winter exhibition held at Ottawa. The weather was clear and cold on the opening day, but gradually moderated and became quite mild before the close of the show, but, on the whole, was favorable for spectators and exhibitors, as well as for the stock. Howick Pavilion, in which the exhibition is held, has no equal in this country as an ideal With the new place for a winter stock show. three-storey wing added this year, giving stabling for 70 more dairy cows on the lower floor, nearly 50 additional horse stalls on the second floor and poultry above, besides all the space previously allotted to these different classes, no one could question the enterprise of the management and their desire to make the Eastern Live-Stock and Poultry Show the banner show of its kind in Canada. Everything possible is done for the comfort of man and beast. The stables are light, well ventilated and sanitary, and comfortable quarters are provided for the exhibitors, as well as ample seating space for the spectators. One thing the show seems to lack, and that is special attractions to draw evening crowds. While the attendance was good, there seems to be an opportunity missed for drawing the city people out en masse. Judging of draft horses and of cattle gets just a little monotonous if continued to exceedingly great length, and even those interested A little diversion like a appreciate a change. number of good jumpers over the jumps, a potato race on horseback, or a little clean sport, adds spice, and is not out of place at evening shows. However, the crowds were fairly large and the management ever willing to assist in every way possible towards the comfort and enjoyment of Lectures were well attended, and, all present. being held at hours when no judging was in progress, did not conflict with that important part of the exhibition. It is useless to attempt to get crowded lecture rooms when judging is in progress, and, the management realizing this. have for the past few years avoided the clash by skill in arranging the program.

HORSES.

Like the Ontario Provincial Winter Fair held in Guelph in December, the great feature of the Ottawa Show was horses, and of these Clydesdales formed the major part. It was one of the best horse shows of the season, and conspicuous were the large number of creditable amateur and local entries, the smaller breeders being out in very large numbers. It shows a healthy state of affairs when the amateur is encouraged to compete, not only in the amateur classes, but also in the open classes. John A. Boag, of Queens-ville, Ont., placed the awards in all the heavy breeds, and Dr. F. C. Greenside, V.S., of Guelph, judged all the light breeds. The single-judge system worked perfectly, and good satisfaction was given throughout

Exhibitors.—Clydesdales—Smith & Richardson, Columbus, Ont.; Mount Victoria Stock Farm, Hudson Heights, Que.; Wm. Meharey, Russell, Ont.; R. Ness & Son, Howick, Que.; B. Rothwell, Hillsdale Farm, Ottawa, Ont.; Allison Bros., Chesterville, Ont.; A. Scharf, Cumming's Bridge, Ont.; R. M. Holtby, Manchester, Ont.; John Minoque, London, Ont.; W. Cochrane, Ottawa; R. N. Harris, Gatineau Point, Que.; W. A. Morron, Russell, Ont.; Lew Richardson, Ashburn, Ont.; S. A. Devitt, Burketon Road, Ont.; D. J. Boyd, Kars, Ont.; John Bright, Myrtle Station, Ont.; J. & D. J. Campbell, Woodville, Ont.; Wm. Darcy, Purple Hill, Ont.; J. D. Mc-

Curdy, Hazeldean, Ont.; W. J. Ormiston, Enfield, Ont.; Wm. Ratcliffe, Beathton, Ont.; T. D. Fairbairn, Billing's Bride, Ont.; Geo. Mackie, Shirley, Ont.; Ralph Henry, City View, Ont.; Thos. C. McLean, Ormond, Ont.; Eadie Bros., Aylmer, Que.; A. Watson & Son, St. Thomas, Ont.; Bower Henry, Bell's Corners, Ont.; Robert Todd, Geneva,

Shires.-Jas. Callander, North Gower, Ont.. Percherons.-R. Ness & Son and W. R. Wilson, Manotick, Ont.

Hackneys .-- A. Watson & Son, Mount Victoria Stock Farm; Allison Bros., and Mrs. G. E. Stacey, Ottawa.

Standard-breds.-D. H. Skuce, Carsonby, Ont.; J. R. Byrne, Arnprior, Ont.; Alex. Hunter, Ottawa; C. W. Cresswell, Martintown, Ont.; S. A. Devitt; John Helmer, Westboro, Ont.; A. Dynes, Ottowa, and Owen McGovern.

Thoroughbreds.-R. E. Webster, Ottawa: W. Cochrane, Ottawa; Homewood Farm, Choisy,

Hunters.-Homewood Farm; C. M. Edwards, and Hon. C. Sifton.

Clydesdales.—Ten aged stallions faced the judge. They were a good drafty lot. On Guard, a very smooth, big, thick horse with nice clean, flinty bone, and good feet and a fair mover, went first with the great old show horse, Sir Spencer, winner of many hard battles and still clean at the ground, and showing the same sensational action which has helped him land many a red, second. Third in line was Majestic Baron brought out in perfect condition, a big, massive, horse, with lots of draft character. Whitekirk Hero, one of the snappiest and truest going horses of the lot, and with lots of substance and quality was fourth, and Title Deeds, by Everlasting, fifth.

Three-year-olds, four strong, were a fair class and were headed by Loyal Cup, a big, black, brim full of draft character, with an abundance of good quality bone, good feet, and a fair Viscount Kinnard, a short coupled, smooth. high quality, clean-limbed, son of Viscount Seton was second, and Lucky Coin, a

more upstanding horse, third. Five two-year-olds made f the best classes of the entire show, containing, as it did, the champion of the Dominion Exhibition last fall, Scottish Ring. The class was won by Corinthian, a big growthy colt, nicely turned throughout, and showing an abundance of quality. Baron Murray, a very strong boned colt, a little more upstanding than the winner, went second, with Scottish Ring, third.

Only two yearlings were entered. Anagram, a good type of Clydesdale, was first, and Bonnie Dee second.

Ten aged mares made the best female class. Scotts Lady, a seven-year-old, not overly large, but trim and neat, strong on top and faultless at the ground, was a winner. Lady Pride, a strong topped mare, scarcely as thick as Scotts Lady but showing great quality, went second, and Nan Spencer, the big, strong-boned, winner of last year, third.

Mares two years old were headed by one of the sensations of the show, Lady McTaggart, a big filly with the best of Clydesdale feet, and an abundance of high quality bone. She gives every indication of making a very large drafty brood mare. Next in line was Dora Duff, also a great mare, massive, thick, clean-limbed, and a good

mover. Prunella and Queen, two more of the right kind went third and fourth respectively.

Clydesdales (Canadian-bred-The Canadian-bred classes were all well filled and closely contested, and interest was just as keen in them as in the open classes. Ten aged stallions made a strong class, and the many times winner, Koyama, repeated and carried away the red. He is a wonderful horse with feet and legs to suit the most fastidious, and a short, strong back and good middle. Prince Cairn, a very clean-limbed horse and an extra good mover, was second, with Duke of Ormond, a big, massive black, in third place, and Teddy Middleton fourth.

Of nine flashy two-year-olds, Baron Shapely, a Clydesdale from top to bottom, quality all over, and a strong true goer, was the best. Adjutant, a somewhat smaller colt, but well ribbed up, and with the right class of quality won second. Acme, a bigger colt and a little plain at the

Yearlings, nine strong, were headed by Fiscal Prince with Acme Prince second, just the reverse of the placing at Guelph. These two colts are a very close pair. Fiscal Prince is a toppy youngster with grand feet and lots of bone of good quality, while Acme Prince is a little larger with almost as many good points as his rival.
Third went to Cashell Lad, a smaller colt, having clean limbs and good feet.

Six aged mares came out and the red went to Lady Peggy Freeland, a nice type of mare with clean limbs and showing plenty of substance. Rosvelva, last year's champion of the Caradianbred classes, not in quite as good bloom as upon that occasion, was second, and the big, massive Killantrae Jean, third.

Trim of Oro, a very growthy filly, strong on with bone and substance galore, and plenty of quality, headed a class of five two-year-olds, with Ivroy's Queen, a mare of high quality, second, and Belle of Argyle, third.

Only one yearling was forward. All the amateur classes were well filled from entries made in the Canadian-bred classes, and competition was keen in every class.

Heavy draft horses made a good showing, Baroness and Blucher winning first and second on the line in single harness, and first in teams.

Only one Shire was forward, and two Percherons made up the exhibit of this breed. Hackneys were not a strong breed at this show. Christopher North, a typey chestnut, landed the championship on his conformation and high action.

A few choice Thoroughbreds, Standard-breds and Hunters added to the interest in the light horse department.

Awards.—Clydesdales Open Classes—Stallions, aged: 1 and 4, Allison Bros., on On Guard, by Prince Sturdy and Whitekirk Hero, by Aberlady; 2, Ness, on Sir Spencer, by Sir Hugo; 3 and 6, Smith & Richardson, on Majestic Baron, by Baron's Pride, and Lascar, by Craigend Prince; 5, Meharey, on Title Deeds, by Everlasting. Stallion, three years old: 1, Ness, on Loyal Cup, by Silver Cup; 2 and 4, Smith & Richardson, on Viscount Kinnard, by Viscount Seton, and Cowar Chief, by Baron Ruby; 3, Scharf, on Lucky Coin, by Oyama. Stallion, two years old: 1 and 2, Smith & Richardson, on Corinthian, by Momento, and Baron Murray, by Baron's Pride; 3, and 5, Ness, on Scottish Ring, by Scottish Crest, and Baron Stockwell, by Baron's Pride; 4, Scharf, on Royal Winston, by Sir Winston. Stallions, oneyear-old: 1, Smith & Richardson, on Anagram, by Benedict; 2, Holtby, on Bonnie Dee, by Banks O'Dee. Mare, aged: 1, 6 and 7, Allison Bros., on Scotts Lady, by Montrave Ronald,

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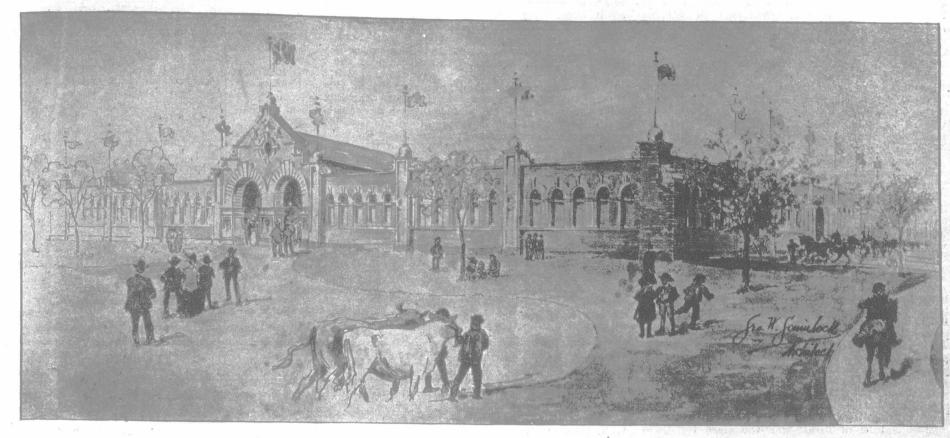
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Proposed Live Stock Building, Canadian National Exhibition, Toronto, Ont.

Wisconsin Maid, by Baronson, and Riverdale Belle, by Perfection; 2 and 5, Smith & Richardson, on Lady Pride, by Pride of Blacon, and Belle of Holmbyre, by Crusoe; 3, Ness, on Nan Spencer, by Sir Spencer; 4, Rothwell, on Mimosa, by Silver Cup. Mares, two years old: 1, 6 and 7i Ness, on Lady McTaggart, by Sir Spencer, Lady Clark, by Sir Spencer, and Agatha, by Laura's Pride; 2, 3 and 4, Smith & Richardson, on Dora Duff, by Ramson, Prunella, by Baron's Pride, and Queen, by Knight of Albion; 5, Scharf, on Kathleen Rudd, by The Comet. Champion stallion, On Guard. Champion mare, Lady McTag-

Clydesdales (Canadian-bred)—Stallions, aged: 1, Boyd, on Koyama, by The Rejected; 2, Lew Richardson, on Prince Cairn, by Cariondale; 3, McLean, on Duke of Ormond, by Adam Bede; 4, Smith & Richardson, on Teddy Middleton, by Montrave Matchless; 5, Morron, on Baron Morris, by Baron's Treasure; 6, Devitt, on Acme's Phillip, by Acme. Stallions, two years old: 1, John Bright, on Baron Shapley, by Black Ivory; 2, Campbell, on Adjutant, by Mythboe; 3, and 4, Devitt, on Acme 2nd, by Acme, and Royal Rod, by Black Rod; 5, Darcy, on Royal Direct, by Royal Freeland; 6, Bvars, on Cornerstone Jr., by Cornerstone. Stallion, one-year-old: 1, Ormiston, on Fiscal Prince, by Fiscal Member;

Royal Baron, by Baron Charming; 5, Smith & Richardson, on Soutar's Best, by Dunure Soutar; 6, Harris on Hedley's Choice, by Royal Hedley. Mares, aged: 1, Geo. Mackie, on Lady Peggy Freeland, by Royal Freeland; 2, Fairbairn, on Rosvelva, by Roosevelt; 3, Cochrane, on Killantrae Jean, by Gallant Baron; 4, Henry, on Hilda Priam, by Royal Winifred; 5 and 6, McLean, on Louie Archer, by The Royal Arch, and Belle of Glouster, by Prince Fuchius. Mare, two years old: 1 and 3, Watson, on Trim of Oro, by Baron Gartley, and Belle of Argyle, by Baron Gartley 2, Smith & Richardson, on Ivory's Queen, by Black Ivory; 4, Eadie Bros., on Pretty Lass, by Sir David; 5, Henry, on Lady Baron, by Baron Eirig. Mare, yearling: 1, Robt. Todd, on Aberdeen Grace, by Lord Aberdeen. Champion stallion, Baron Shapely. Champion mare, Trim of Oro. Grand champion Clydesdale stallion, On Grand champion Clydesdale mare, Lady Guard. McTaggart.

Clydesdales, (Canadian-bred, Amateur Classes). -Stallions, aged: 1, Wilson, on Prince Patrick, by Prince Fuchius; 2, Lew Richardson, on Prince Cairn; 3, Morron, on Baron Morris; 4, Devitt, on Acme's Phillip; 5, Mackie, on Baron Thomas. Stall on two years old: 1, Campbell, on Adjutant; 2 and 3, Devitt, on Acme 2nd, and Ormiston, on Fiscal Prince, by Fiscal Member; Royal Rod; 4, Darcy, on Royal Direct; 5, 2, Holthy, on Acme Prince, by Acme; 3, Holtby, Bvars, on Cornerstone Jr. Stallions one-year-on Cashell Lad, by Gay Spring; 4, Ratcliffe, on old: 1, Holtby, on Cashel Lad; 2, Ratcliffe, on

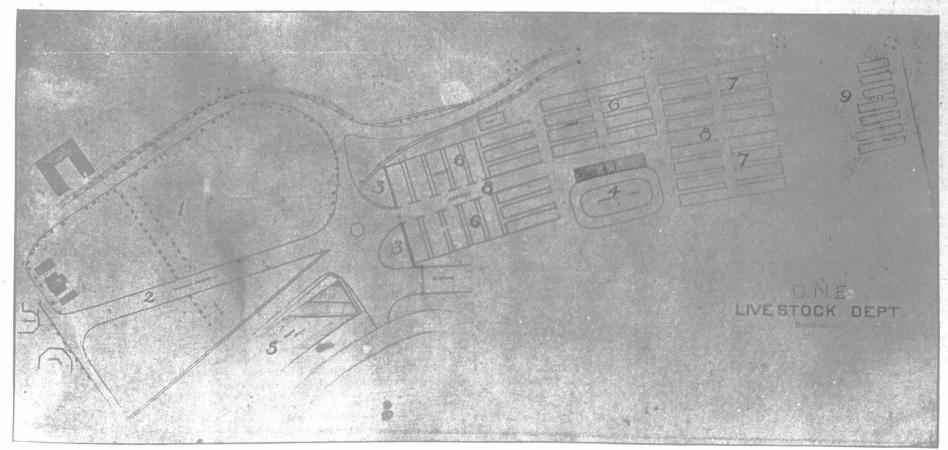
Royal Baron; 8, Franklin, on Baron Soutar; 4, Holtby, on A. B. Acme; 5, Scharf, on Borden 2nd. Mares, aged: 1, Mackie, on Lady Peggy Freeland; 2, Owens, on May Queen of Montbelle. Mares, yearling: 1, Todd, on Aberdeen's Grace; 2, A. Millar & Son, on Lady Aberdeen.

Shires-Stallion any age: 1, Jas. Callander, on Arona Leader, by Uncle Sam.

Percherons—Stallion any age: 1, Wilson, on Hableur, by Galopin; 2, Ness, on Insecto, by

Heavy Draft-Gelding or Mare in Harness: 1 and 2, Smith & Richardson, on Baroness and Blucher; 3, Geo. Cochrane, on Baroness and Blucher; 3, Geo. Cochrane, on Hillcrest Lady Gartley; 4, A. Scharf, on Lady Gold. Teams in harness: 1, Smith & Richardson, on Baroness and Blucher; 2, Cochrane, on Mary Kirkwood, and Hillcrest Lady Gartley; 3, Bower Henry, on King and Roy; 4, A. Scharf, on Florence McLaws and Lady Gold. Stallions in harness: 1 and 2 Smith & Bishardson, on Vincount Figure 2 and 2, Smith & Richardson, on Viscount Kinnard. and Majestic Baron; 3, and 4, McLarey, on Title Deeds and Golden Crown. Gelding or mare (amateur): 1, Henry; 2, Clarence T. Watt; 3, Reid & Co.; 4, A. Millar & Sons.

Hackneys—Stallion, 15.2 and over, any age:
Watson, on Guelph Performer; 2, Mount
ictoria Stock Farm, on Silver King. Stallion Victoria Stock Farm, on Silver King. Stallion under 15.2, any age: 1, Mount Victoria Stock Farm, on Christopher North; 2, Watson, on Wenona Jubilee; 3, Mrs. Steacy, on Duke of



General Plan Live Stock Department, Canadian National Exhibition. See article, page 130.

Conquest. Aged Mares: 1, Mount Victoria Stock Barn, on Cymbal; 2, Watson, on Wenona Bainty. Mares foaled after Jan. 1st; 1910: 1, Watson, on Daisy Performer. Champion stallion, Christopher North.

Standard-breds-Aged stallions: 1, Byrne, on Ashland J.; 2, Skuce, on Prince Ambrose. lions fealed after Jan. 1st, 1910: 1, Devitt, on Antevolo Rysdyk; 2, Cresswell, on King Royal; 3, Helmer, on Laragraph. Mare, any age: 1, Mc-Govern, on Custerena; 2 and 3, Dynes, on Larry Lass, and Nettie Larabie. Champion stallion, Aptevolo Rysdyk,

Thoroughpreds—Stallions: 1, Webster, on Kirk-field; 2, Cochrane, on Ponka. Mares: 1 and 2, Homewood Farm, on Decade, and Stagecraft.

Hunters-Four years and under: 1, 2 and 3, Homewood Farms: Gelding or mares carrying up to 175 lbs. or over: 1, 2 and 3, Sifton. Geldings or mares carrying less than 175 lbs. : 1 and 8, Sifton; 2, Edwards. Champion Hunter, Sifton, on Elmhurst.

BEEF CATTLE.

Exhibitors and spectators alike have become accustomed to seeing a better show of the dairy breeds than of beef cattle at Ottawa, but the 1912 beef cattle exhibit was undoubtedly a revelation to many, for it was not only numerically stronger than upon any former occasion, but the quality and finish of the entries was far above that of former years. Many of the cattle were fresh from winnings at Guelph, and the major portion of the show was made up of purebred Shorthorns or Shorthorn grades and came largely from Western Ontario.

The feature of it all was the class for three export steers. Seldom is it that one is privileged to set eyes upon 24 better heavy-weight exporters than the two dozen which were forward. Judge John Gardhouse, of Highfield, who always gives the best of satisfaction in the judging ring, placed the awards in all the beef classes, and while he had his work cut out for him in many, this was undoubtedly his most difficult class. The same three red-and-white steers which won at Guelph took premier honors here. They are a thick-fleshed, massive trio, almost as much alike

as three peas and a credit to their breeder and The principal winners were:

Pritchard and Slattery, Fergus, Ont.; A. Armstrong, Fergus, Ont.; T. Russell, Toronto, Ont.; Peter White, Pembroke., Ont.; Wm. Ratcliffe & Son, Beathton, Ont.; W. A. Wallace, Kars, Ont.; J. D. Brien, Ridgetown, A. Wallace, Kars, Ont.; J. D. Brien, Ridgetown, Cont. Cnt.; Sam Bray, Enfield, Ont.; L. O. Clifford, Oshawa, Ont.; Thos. B. Broadfoot, Fergus, Ont.; A. Dynes, Ottawa, and J. MacKenzie, Beathton,

Awards.—Shorthorns—Steer, 2 years and under 8: Pritchard and Slattery; 2 and 3, Arm-Steer, 1 year and under 2: 1 and 8, Pritchard & Slattery; 2 and 4, Armstrong. Steer, under 1 year: 1, 2 and 3, Russell; 4, Armstrong. Heifer, 2 years and under 3: 1, 3 and 4, Armstrong; 2, Pritchard & Slattery. Heifer, 1 year and under 2: 1, Peter White; 2, Wm. Ratcliffe & Son; 3, Peter White; 4, Russell; 5 and 6, Wallace. Heifer, under one year: 1,

J. D. Brien; 2, Sam Bray; 3, Wallace. Herefords.-There were four classes of this oreed, L. O. Clifford, of Oshawa, having the only entries, ten-head in all.

Aberdeen Angus.-Steer or heifer, 2 years and under 3: 1, Thos. B. Broadfoot. heifer, 1 year and under 2: 1, Broadfoot. Steer or heifer under 1 year: 1 and 3, Broadfoot; 2, Armstrong. Cow or heifer, 3 years or over: 1, Broadfoot; 2, Armstrong.

Grades or crosses.—Steer, 2 years and under 3: 1. 2 and 5, Pritchard & Slattery; 3 and 4, Armstrong.

Steer, 1 year and under 2: 1, 2, 4 and 5, Armstrong; 3, Pritchard and Slattery. under 1 year: 1, Pritchard and Slattery; 2, Russell; 3 and 4, Armstrong; 5, Dynes. Heifer 2 years and under 3: 1 and 2, Pritchard and Slattery; 3 and 4, Armstrong. Heifer, 1 year and under 2: 1, 2 and 4, Armstrong; 3, Pritchard and Slattery. Heifer, under 1 year: 1 and 2, Armstrong.

Three export steers: 1 and 2, Pritchard &

Slattery; 3, 4 and 5, Armstrong. Animals entered for dressed carcass competition judged as part: 1 and 3, Armstrong; 2,

Pritchard & Slattery. Amateur classes.-Heifer, 1 year and under 2: 1, J. Russell; 2, J. MacKenzie. Heifer, under

1 year: 1, J. D. Brien; 2, S. Bray. Best grade steer sired by a pure-bred Shorthorn bull: 1 and 3, Pritchard & Slattery; 2,

Champion beef animal of the show.—Pritchard & Slattery on the first-prize yearling Shorthorn

A GREAT DAIRY TEST.

The entry of dairy cows was about equal to that of last year in numbers, and the quality was well up to the highest ever seen at the Eastern Ontario Live-Stock Show. Situated in the

heart of a noted dairying district and drawing, as it does, from the best herds in Western Ontario, the dairy test is always a keen competition. When the final reckoning for championship was made, Rhoda's Queen, the sensational old Holstein "milk machine," showed the highest number of points. This cow has had a wonderful record, being champion two-year-old of this show in 1905, champion cow in 1910, champion milk producer in 1912, and champion again this year. Although not in as good bloom as she once was, she still is a great cow, and won the De Laval special for best dairy cow of the show. The special for best grade was won by an Ayrshire grade, the property of D. T. Ness.

The principal winners were: D. T. Ness, Howick, Que.; A. S. Turner & Sons, Ryckman's Corner's, Ont.; Hector Gordon, Howick, Que.; N. Dyment, Clappison's Corners, Ont.; Robert Meharey, Russell, Ont.; Legatt & McMillan, Trout Ri er, Que.; N. Sangster, Ormstown, Que.; W. J. Bailey, Nober, Ont.; A. E. Hulet, Norwich, Ont.; A. C. Hardy, Brockvi'le, Ont.; W. H. Cherry, Garnet, Ont.; R. Dowler, Billing's Bridge; Sam. Brav, Beathton, Ont.; R. Reid & Co., Ottawa, Senator Owens, Mounthello, Que.; T. A. Spratt, Billing's Bridge, Ont., and John Kelly,

Shakespeare, Ont.

hibited by E. Brien & Son, Ridgetown, Ont.; J. Lloyd Jones, Burford, Ont., and A. Armstrong, Fergus, Ont.-Awards.-Wether lamb under 1 year: Brien, 1 and 2; Jones, 3; Armstrong, 4 and 5. Pen of 3 wether lambs under 1 year. Brien, 1; Jones, 2; Armstrong, 3. Ewe lamb under 1 year.—Brien, 1, 2 and 3. Pen of 3 ewe lambs under 1 year.—Brien, 1, 2 and 3.

Lincolns.-Only two exhibitors were out with Lincolns-E. Brien & Son and J. Linden, Ilderton, Ont. Awards,-Wether lamb, under 1 year: Linder, 1 and 4; Brien, 2 and 3. Three wether lambs: Brien, 1; Linden, 2. Ewe lamb under 1 year: Linden, 1, 3 and 4; Brien, 2. Three ewe lambs: Linden, 1; Brien, 2.

Leicesters.-A particularly strong lot of Leicesters were exhibited by A. & W. Whitelaw, Guelph, Ont.; John Kelly, Shakespeare, Ont.; and J. Lloyd Jones, Burford, Awards. - Wether lamb, under 1 year: Whitelaw, 1, 2 and 3; Kelly, 4. Three wether lambs: Whitelaw, 1 and 3; Kelly, 2. Ewe lamb under 1 year: Jones, 1; Kelly, 2 and 5; Whitelaw, 3 and 4. Three ewe lambs: Whitelaw, 1 and 3; Kelly, 2.

Oxfords.—This breed was exhibited by J, Kelly, E. Brien & Son, and A. Armstrong. Wether lamb under 1 year: Armstrong, 1, 2 and

	Aryshires—Cow 48 Months and Over.	Lbs. milk	cent.	Total points	
	1, A. S. Turner & Son; Briery of Springbank 2, Hector Gordon; Victoria 3, Turner & Son; Whitewater Lady 2nd. 4, N. Dyment; Snowdrop of Hickory Hill 5, N. Dyment; Beauty of Hickory Hill 6, Turner & Son; White Floss	150.50 143.60 159.40	fat 3.0 4.1 4.2 3.7 3.5 3.5	213.98 196.96 193.50 181.50 180.40 179.04	
	Cow 36 Months and Under 48. 1, N. Dyment; Violet of Hillview 2, Turner; Blossom of Springbank 3, Robt. Meharey; Barcheskin's Helen 4, N. Dyment; Gypsy Maid of Hickory Hill	139.20	3.7 3.5 3.7 3.5	184.92 161.40 153.31 137.73	
	Heifer Under 36 Months. 1, D. T. Ness; Edgewood Lovely 2, Turner; Pansy of Springbank 3, I egatt & McMillan; Lucky Girl 4, Dyment; Jubilee of Hickory Hill	. 129.60 . 116.70	3.5 3.9 3.5 3.7	151.96 149.07 147.26 145.91	
	Holsteins—Cow 48 Months or Over. 1, N. Sangster; Rhoda's Queen 2, W. J. Bailey; Hilda of Nober 3, A. E. Hulet; Pauline Colantha Posch 4, A. C. Hardy; Countess Segis 5, Sangster; Oleana Patroness	. 249.20 . 225.30 . 209.80	3.3 3.6 3.7 3.8 3.0	267.72 263.64 248.00 247.94 234.00	
	Cow 36 Months and Under 48. 1, W. J. Bailey; Daisy Posch 2, W. H. Cherry; Netherland Beauty	208 90	3.4 3.0	235.16 209.96	
	Heifer 24 Months and Under 48. 1, Sangster; Rhoda's Queen Princess 2, Hulet; Homestead 3, Hulet; Rose Abbe'erk 4, Dowler; Duskie Cor Born	155.80	3.8 3.2 3.6 3.6	180.40 165.77 145.53 143.97	
	Heifer Under 24 Months. 1, Dowler; Casey Fe Kol 2, Bai'ey; Countess Posch 3, Sanster; Lyla of Pleasant Valley 4, Dowler; Princess Geralline 5, Sanster; Loretta of Pleasant Valley	. 122.60 . 121.00 . 123.50	3.4 3.4 3.1 3.7 2.9	135.63 123.86 128.89 127.90 118.84	
	Shorthorns—Cow 48 Months and Over. 1, John Kelly; Gracy Gywnne 2, Sam Bray; Lucy 3, R. Reid & Co.; Bonnie Find	. 138.20	3.3 4.1 4.1	150.23 146.67 142.72	
,	Grades and Crosses—Cow 48 Months and Over. 1, Reid & Co.; Cherry 2, Senator Owens; Diamond 3, D. T. Ne's; Rose 4, T. A. Spratt; Bessie 5, Senator Owens; Pearl	. 177.50 . 190.20 . 139.04	3.6 2.4 4.0 3.4 3.1	235.56 179.04 178.83 163.50 162.12	
	Cow 36 Months and Under 48. 1, Reid & Co.; Grace 2, Reid & Co.; Spot	196.00	4.4	169.86 168.96	
	Heifer Under 36 Months 1, Reid & Co.; Tippo 2, D. T. Ness; Rose	. 131.00	3.4	143.05 130.86	

SHEEP.

hibit excelled that of any former year. high-class character of the various breed entries and the perfection of fitting, so conspicuous all through the various classes, made the work of pleasant one, although many of the classes taxed his expert knowledge of the work in hand owing to the splendid quality of the line-up before him. The only feature of the sheep exhibit that did not seem to be just as it should be, was that all the exhibitors were from Western Ontario.

Cotswolds.—Cotswolds were out strong ex-

3. Three wether lambs: Armstrong, 1; Brien, The universal opinion was that the sheep ex- 2 and 3. Ewe lamb under 1 year: Kelly, 1; The Brien, 2, 3 and 4. Three ewe lambs: Brien, 1 and 2.

Shropshires.—This breed made a splendid showing. Fresh from a successful tour of the Chicago the judge, Col. R. McEwen, of Byron, Ont., a and Guelph Shows, their quality and fitting was up to a high standard. Exhibitors: J. & D. J. Campbell, Woodville, Ont., and J. Lloyd Jones, Burford. Awards.-Wether lamb under 1 year: Campbell, 1, 2 and 4; Jones, 3. Three wether lambs: Campbell, 1; Jones, 2 and 3. Ewe lamb under 1 year: Campbell, 1, 3 and 4; Jones, 2. Jones, 2. Three ewe lambs: Campbell, 1;

out with den, Ilderer 1 year: ree wether amb under Three 2.

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ot of Lei-Whitelaw, akespeare, Burford. year : Three 1 Kelly, 2. elly, 2 and

J, Kelly, Awards. , 1, 2 and

e lambs:

points 213.98 196.96 193.50 181.50 180.40 179.04

Total

184.92 161.40 153.31 137.73

151.96 149.07 147.26 145.91

267.72 263.64 248.00 247.94 234.00

235.16 209.96 180.40 165.77

145.53

143.97 135.68 123.86 128.89 127.90

118.84 150.23 146.67 142.72

235.56 179.04 178.83 163.50 162.12

169.86 168.96

1 · Brien. Kelly, 1;

Brien, 1

130.86

ndid showhe Chicago fitting was J. & D. J. Llovd b under 1 3. Three 2 and 3. 3 and 4;

npbell, 1;

this great mutton breed been seen in a Canadian Gourley, Diamond. show ring than those exhibited by G. Baker & Sons, Burford; J. Lloyd Jones, and Hampton Awards.-Wether lamb under 1 Bros., Fergus. year: Baker, 1 and 2; Jones, 3 and 4. Three wether lambs: Baker, 1; Jones, 2 and 3. Ewe lamb under 1 year: Jones, 1; Hampton Bros., 2 and 3; Baker, 4. Three ewe lambs: Hampton Bros., 1; Jones, 2; Baker, 3.

JANUARY 23, 1918

Dorsets were exhibited by R. H. Harding, Thorndale, Ont. The entry was a high-class one but the flock had things all their own way.

Hampshires were exhibited by John Kelly, and with a single entry by G. Baker in the wether lamb class, which was placed second, Kelly won all the other awards.

Grades or Crosses, "Long Wooled."-This class was particularly strong in numbers, fitting and quality. Awards.—Wether lamb under 1 year: J. Linden, 1 and 2; A. Armstrong, 3; E. Brien & Son, 4. Three wether lambs: Linden, 1; Brien, 2; Whitelaw, 3; Armstrong, 4. Ewe lamb under 1 year: Linden, 1 and 4; Brien, Woods. 2 and 3. Three ewe lambs: Linden, 1; Brien, 2; Armstrong, 3.

Grades or Crosses, "Short-wooled" wether lamb under 1 year: G. Baker & Son, 1 and 3; J. Lloyd Jones, 2; J. & D. J. Campbell, 3; Armstrong, 4. Three wether lambs: Baker, 1; Jones, 2; Campbell, 3; Armstrong, 4. Ewe lamb under 1 year: Campbell, 1 and 2; Armstrong, 3 and 4. Three ewe lambs: Campbell, 1; Armstrong, 2.

SWINE.

The swine exhibit as a whole was a very creditable one, although other years have probably shown a higher standard of breed quality. Yorkshires were probably a little behind what some other years brought out, although some excellent types were shown. They were exhibited by J. E. Brethour & Nephews, Burford, Ont.; A. Dynes, Ottawa; R. Reid & Co., Ottawa; Pritchard & Slattery, Fergus. Berkshires, in the matter of breed type and quality, were perhaps the strongest of any of the pure-bred classes. They were exhibited by R. Reid & Co., E. Brien & Son, Ridgetown, Ont., and A. Thompson, Shakespeare, Ont. In the Tamworths some particularly nice things were shown, the exhibitors being A. Dynes and R. Reid & Co. Numerically the grades and crosses were the strongest and the quality generally good. They were exhibited by R. Reid & Co., J. McKen ie, Beathton, Ont.; Gramandyne Stock Farm, Ottawa; J. Ferguson, Dalmeny, Ont.; A. Dynes, E. Brien & Son, Brethour & Nephews, and Pritchard & Slattery. All the swine classes, including the export bacon hogs, were judged by Wm. Jones, of Zenda, Ont. Following is the order of the awards:

Yorkshires.—Barrow, 6 months and under 9: 1 and 3, Brethour; 2, Dynes; 4, Reid & Co. Barrow, under 6 months: Reid & Co., 1; Brethour, 2, 3 and 5; Pritchard & Slattery, 4. Sow, 6 months and under 9: Brethour, 1, 2, 3 and 4; Reid & Co., 5. Sow, under 6 months: Brethour, 1, 2, 3, 4.

Berkshires.—Barrow, 6 months and under 9: Brien, 1 and 2; Reid & Co., 3. Barrow, under 6 months: Brien, 1, 2 and 3; Reid & Co., 4. Sow, under 6 months: Brien, 1, 2, 3.

Tamworths.—Barrow, 6 and under 9 months: Dynes, 1, 2, 3 and 4. Barrow, under 6 months: Dynes, 1, 4, 6; Reid & Co., 2, 3, 5. and under 9 months: Dynes, 1, 2, 3. Sow, under 6 months: Dynes, 1, 2, 3.

Grades or Crosses.—Barrow, 6 and under 9 months: Reid & Co., 1 and 4; McKenzie, 2; Gramandyne Farm, 3, 5 and 6. Barrow, under 6 months: McKenzie, 1; Ferguson, 2; Dynes, 3; Brien, 4; Reid & Co., 5; Pritchard and Sow, 6 and under 9 months: Slattery, 6. Brethour, 1; Reid & Co., 2; Dynes, 3, 4 and 5. Sow, under 6 months: Dynes, 1, 2, 5; Pritchard and Slattery, 3; Brethour, 4; Ferguson, 6. Grade Barrow or Sow, exhibited by an amateur McKenzie, 1 and 3; Brien, 2; Pritchard and Slattery, .4.

Export Bacon Hogs.—Three export bacon hogs, pure-breds. Outside some of the leading winners, other years have seen more uniformity and better fitting than some of the entries presented. The awards were: Brethour, 1, 3, 4; Gramandyne Farm, 2 and 7; Reid & Co., 5; Pritchard and Slattery, 6.

Grades or Crosses.—Brethour, 1; Ferguson, 2; Reid & Co., 3; Dynes, 4; Pritchard & Slattery, Sweepstakes for best trio of bacon hogs, pure-breds or grades, went to Brethour on his pure-breds and reserve on his grades.

Carcass awards.—Pure-breds: Brethour, 1, 5 and 6; Reid & Co., 2; Dynes, 3 and 4. Grades and Crosses: Brethour, 1, 3, 4; Ferguson, 2; Dynes, 5.

THE SEED EXHIBIT.

T. G. Raynor had charge of the seed exhibit which was larger than usual, and the quality, on the whole, very satisfactory.

Awards.—Fall Wheat: 1, R. A. Oliver; 2, S.

Southdowns. Very seldom has a nicer lot of J. Woods, Metcalfe; 3, L. F. Murray; 4, S. G.

Spring Wheat: 1, D. B; Stewart, Renfrew; 2; Peter Wilson, Cobden; 3, S. J. Woods; 4, S. G. Gourley.

Banner Oats: 1, Peter Wilson; 2, S. G. Gourley.

Barley (six-rowed): 1, R. A. Oliver; 2, Peter Wilson; 3, Alex Morrison; 4, H. B. Webster, Rannock.

Buckwheat: 1, S. J. Woods; 2, D. Cumming, Russell.

Field Beans: 1, S. J. Woods; 2, E. Brien & Sons. Ridgetown; 3, L. D. Brien, Ridgetown; 4, A. Watson. Potatoes (long white): 1, Jas. Snetsinger,

Camer's Corners; 2, S. J. Woods. Potatoes (round, white): 1, A. Schmidt, Mildway; 2, Wm. Naismith, Falkenberg; 3, S, J.

Woods; 4, D. B. Stewart. Potatoes (rose type): 1, Andrew Schmidt; 2, Wm. Naismith; 3, Jas. Snetsinger; 4, S. J.

Corn (8-rowed flint): 1, F. A. Smith, Aylmer ; L. D. Hankinson, Aylmer; 3, A. S. Manard; E. Brien & Sons.

Corn (12-rowed flint): 1, F. A. Smith; 2, A. S. Manard; 1 and 4, J. D. Brien.

Milton F. Mickle; 3, L. D. Hankinson; 4, F. A. Smith. Corn (early yellow dent): 1, J. A. Fletcher; 2, W. J. Fletcher; 3, L. D. Hankinson; 4, F.

(Corn (early white dent): 1, E. J. Mullins;

A. Smith. Timothy: 1, E. Brien & Sons; 2, D. Cumming; 3, S. G. Gourley; 4, J. A. Fletcher.

Red Clover: 2, W. J. Fletcher; 3, J. A. Fletcher.

Alsike: 2, J. A. Fletcher.

POULTRY NUMEROUS AND QUALITY HIGH. With an entry list almost up to the recordbreaker of 1911, the poultry exhibit was a credit to the exhibitors and to the exhibition. Although there were a few less entries than a year ago, there were, owing to the fact that more pens of five birds each were on exhibition, actually more birds out this year than upon that occasion. The utility classes were very strong, especially Barred Plymouth Rocks and White Leghorns, which were most numerous and of outstanding quality. The quality of the exhibit throughout was pronounced by experts to be the best ever seen in Eastern Ontario. All the Asiatic breeds were of exceptionally high standard, and the classes were well filled; Hamburgs were particularly strong; Silver Grey Dorkings, Colored and White Dorkings all above the standard set at former shows, and Houdans excelled anything previously seen at this show, the winning cock and hen being about the best ever seen in America. All classes of Wyandottes were on a high plane as were the Orpingtons, particularly the white variety. Rhode Island Reds scored another success. Turkeys made a good showing, another success. Turkeys made a good showing, and water fowl were stronger than in 1911. All the ornamental classes were well filled.

A Bank Review of 1912.

From the profits of black fox ranching in the Province of Prince Edward Island to the accumulations of the National Insurance Fund in Great Britain, no material factor in the preparation of its annual review of the business conditions prevailing during 1912 in North America and Great Britain seems to have escaped the ken of the management of the Canadian Bank of Commerce. The results of this survey, prepared in connection with the recent annual meeting, appear in the form of a fifty page pamphlet conveniently arranged in eight sections according to the territories where the bank is actively respresented by managers or superintendents, viz., The Maritime Provinces and Newfoundland, Quebec, Ontario, Manitoba, Saskatchewan and Alberta, British Columbia and The Yukon, The United States, Mexico and Great Britain. The bank is doing a large business in expanding fields of enterprise with which the management aim to keep closely in touch. Particularly is this so in regard to agricultural matters, and it shows how supremely important, in the mind of the banker, must be the condition and progress of farming. On nearly every page is this in evidence. New railways into undeveloped districts, with other improved transportation facilities, are infusing a fresh spirit of enterprise into the Maritime Provinces and Newfoundland. Some people, living further west, may be interested to learn that little Prince Edward Island has about \$10,000,000 in saving's deposits, and is, per capita, probably of the year upon which we have just entered.

the richest rural community in Canada. Farmer's Advocate readers are aware black fox rearing is the most notable recent business development there. The present breeding stock of some 400, being four-fifths of the total number in captivity in the world, are valued at \$2,800,-000; last year's young foxes being worth \$1,800,-The value of co-operative societies in 000. Maritime orcharding is noted, but live-stock is described as "still very far behind." There appears to be a lack of tonnage to make the export lumber trade as profitable as it might be. investigation of the Conservation Commission and the appointment of a Shell Fish Commission, by the Dominion Government, have given great satisfaction. Quebec, like the more easterly Provinces, has enjoyed its full share of Can-ad an prosperity in 1912. Thousands of dollars are still sent out to Ontario for hog products to f ed the Quebec people, while Eastern Township factories claim to make more money shipping cream to the States than making butter locally. It is regretted that more effective measures are not adopted everywhere in Canada to protect the pure products of the "sugar bush", by prohibiting the labelling and sale of adulterated syrup and sugars as "maple." Indicative of Indicative of lus noss growth, the Montreal bank clearings for 1912 showed an increase of \$476,000,000 over 1911, reaching the greatest total on record, \$2,845,470,000. With an eye continually on the practical the report points out that a great deal of money will be made by Ontario farmers individually, and saved to the country generally by the more general adoption of the silo. Western farm methods are described as being, in many ways, "crude and harmful" and the decline of cattle raising is noted with apprehension, but in view of the high price for meat and the losses to grain growing, through frost and wet, the time seems opportune to promote diversified farming. The report admits the existence of extensive speculation in real estate, but appears to minify its seriousness in the case of farming lands. There seems to be no abatement of the signs of British Columbia prosperity, the record price per foot frontage having been reached in Vancouver of \$6,000. Gold production in the Yukon exceeded the output of 1911 by about \$800,000, the total being about \$5,000,000. Despite the Presidental election, unusual activity and strength appear to characterise American business conditions. wheat crop in the great States of Washington. Idaho, Oregon and California is falling off, and the Oriental demand for their flour is feeling the competition of Australia. Judged by the space devoted to that section, the Bank sees a large future in Mexico where, apart from other industries, there is a petroleum oil zone of some 12,-000 square miles, the development of which is destined to affect the world's commerce through the use of crude oil in the internal combustion engine in naval and other navigation. Another factor is the Panama Canal opening. It must be profoundly gratifying to Canadians

to know that, notwithstanding strickes, political unrest and war scares, there has been no cessation of the steady and remarkable advance in the trade of Great Britain which, for the ten months ending October last, showed larger figures than were ever before reached in the history of the country; and better still the outlook continues favorable. With such an expansion in the volume and value of business done money has naturally been in demand, and at this point the report strikes a cautionary note, expressive of the banker's view, that "the price" of capital is rising," and that the coming year does not hold out much prospect of improvement from the borrower's point of view. Canada has enjoyed first place in the favor of the British investor, but Canadian provincial and municipal loan issues have, been heavy with large offerings of such securities still in prospect. Borrowers of this class will therefore be well advised in exercising great caution in embarking in costly projects for which capital must be sought abroad, because securities will probably have to be issued at lower prices to attract investors. One favorable feature, which should help to maintain the prices of gilt-edged securities, is the fact that the immense sums to be collected, on account of the new British National Insurance Fund, will have to be invested. It is estimated that the annual collection will amount to about £20,000,000, and it is hoped the securities of the Canadian provinces will be

included in the approved list. One other point from this report may be mentioned, viz., the scarcity of farm labor in nearly every part of Canada. Other industries are handicapped for want of skilled and ordinary labor, but none so seriously as farming. Towards the solution, of this the most serious of all farm problems, the report does not undertake to shed light. Readers of "The Farmer's Advocate" will find in this review, no doubt, obtainable from the head offices of the Bank of Commerce, Toronto, a lucid, readable and informing account of the business affairs of the year past, that will tend to a clearer understanding of the conditions

MARKETS

Toronto.

REVIEW OF LAST WEEK'S MARKETS At West Toronto, on Monday, January 20, receipts of live stock numbered 102 cars, comprising 1,852 cattle, 1,043 hogs, 612 sheep and lambs, and 90 calves; no business transacted. Packers quote hogs at \$8.25 fed and watered, and \$7.90 f. o. b. cars.

Receipts of live stock at the City and Union Stock yards last week were as

Cars Cattle Hogs Sheep	City. 26 297 195 538	Union. 393 5,760 7,330 2,411	Total. 419 6,057 8,025 2 949	
Calves	538 18	2,411	2,949	
Horses		206	304	

The total receipts of live stock at the two markets for the corresponding week of 1912 were as follows

	City.	Union.	Total.	
Cars	122	196	g 818	
Cattle	1,744	2,927	4,671	
Hogs	2,312	3,006	5,318	
Sheep ,	911	1,227	2,138	
Calves	124	61		
Horses	2	38	40	

. The combined receipts at the two yards for the past week, show an increase of 101 cars, 1,386 cattle, 2,707 hogs, 811 sheep and lambs, 119 calves; but a decrease of 31 horses, compared with the corresponding week of 1912.

As will be seen by the above figures, the receipts of live stock were liberal, but not greater than the demand. Trade was active, and prices firm throughout the week for all classes of live stock, excepting hogs, which were slightly easier, under a strong demand. Sheep and lambs sold at higher prices than at ony time this year.

Exporters.—There were none bought for export! Several lots of steers of export weights and quality, sold from \$6.75 to \$7.35, but they were bought by the local abattoirs.

Butchers'.—Choice picked lots, and even loads; sold from \$6.60 to \$6.90; good, \$6 to \$6.50; medium, \$5.40 to \$5.90; sommon, \$5 to \$5.80; inferior, \$4.75 to \$5; cows, choice, \$5.25 to \$5.60; medium to good cows, \$4.50 to \$4.75; common, \$3.50 to \$3.75; canners and cutters, \$2.75 to \$3.25; common to medium bulls, \$3.75 to \$4.50; heavy bulls, \$5 to \$5.50, and a few of extra-fine quality sold at \$5.60 to \$5.75, and even \$6 was paid for two or three.

Stockers and Feeders.-Stockers, 600 to 700 lbs. each, are worth from \$4.75 to \$5.15; feeders, steers, 800 to 900 lbs., are worth from \$5.25 to \$5.50. Not many of either class are coming for-

Milke Springers.—Receipts milkers and springers were fairly liberal, and good to choice cows were in good demand, but common to medium were slow sale, and at unchanged prices. Common and medium cows sold at \$40 to \$55 each, while good sold at \$60 to \$75, and a few of extra quality brought \$80, \$85, and \$90 each, but only two at the latter figure.

Weal Calves.—Calves were in demand, and prices advanced about 25c. per cwt. Common, Eastern calves, sold at \$4.50 to \$5; heavy calves, \$6 to \$6.50; medium quality veals, \$7 to \$7.50, and good at \$8 to \$8.50, while choice, new-milkfed veals sold at \$9 to \$9.50 per cwt.

Sheep and Lambs.—Receipts of sheep and lambs were moderate, while the demand was strong, the result being that prices advanced from 25c. to 40c. per cwt. Sheep-Ewes sold at \$4.75 to \$5.50; rams and culls at \$3.50 to \$4.25. Lambs sold from \$8 to \$9 per cwt., the bulk of sales being made at \$8.75.

Hogs.-Packers were determined to get hogs at lower prices, as they consider that they have been paying too high, compared with the outside markets. Canadian prices being over \$1 per cwt. higher than the Chicago and Buffalo quotations. The bulk of the hogs were bought at \$8.50, fed and watered, and \$8.15, f. o. b. cars, although \$8.60 was paid for about 700 hogs during the week.

Horses.-The market for horses last week was a little more active, and for the first time this winter there was con sales."

siderable inquiry by Western dealers, but prices seem to be too strong to suit them. Prices, however, are reported a little easier. Several car lots were sold at the Union Horse Exchange, the bulk of which were for the local trade, one car lot of 18 going to Montreal. Prices were as follows: Drafters, \$260 to \$300; general-purpose horses, \$225 to \$260; express and wagon horses, \$200 to \$240; drivers, \$100 to \$175; serviceably sound, \$30 to \$100.

BREADSTUFFS.

Wheat.-Ontario, No. 2 red, white or mixed, 92c. to 93c., outside. Manitoba. No. 1 northern, 95ic.; No. 2 northern, 93c., track, lake ports; feed wheat, 66ic., lake ports. Oats-Ontario, No. 2, 33c. to 34c., outside; 38c., track, To-Manitoba oats-No. 2, 411c.; No. 3, 40c., lake ports. Rye-No. 2, 73c. to 75c., outside. Peas-No. 2, \$1.15 to \$1.20, outside. Buckwheat-51c. to 52c., outside. Barley-For malting, 60c. to 65c.; for feed, 40c. to 50c. outside. Corn-No. 3 yellow, 56c., track, Toronto, all-rail shipment. Flour-Ontario winter-wheat flour, \$4.05 to \$4.15. delivered. Manitoba flour-Prices at Toronto are: First patents, \$5.30; second patents, \$4.80; in cotton, 10c. more; strong bakers', \$4.60, in jute.

HAY AND MILLFEED. Hay.-Baled, car lots, track, Toronto, No. 1, \$13.50 to \$14; No. 2, \$11 to \$12 per ton.

Straw.-Baled, car lots, track, Toronto, \$10 per ton.

Bran.-Manitoba, \$19 to \$20 per ton; shorts, \$22 to \$23; Ontario bran, \$19 to \$20 in bags; shorts, \$22 to \$23, car lots, track, Toronto.

COUNTRY PRODUCE. Butter.-Market about steady. Creamery pound rolls, 32c. to 34c.; creamery solids, 30c.; separator dairy, 28c. to 30c.; store lots, 24c. Eggs.-New-laid, 30c.; cold-storage, 26c.

to 27c. Honey.-Extracted, No. 1 clover honey, 121c. per lb.; combs, per dozen sections,

\$2.75 to \$3. Cheese.-Large, 14c.; twins, 15c. Potatoes.—Market unchanged. Ontario, car lots, track, Toronto, 85c.; New Brunswick Delawares, 90c. per bag, car

lots, track, Toronto. Beans.-Market easier. Primes, \$2.50 to \$2.55; and \$2.60 to \$2.65 for hand-

Poultry.-Receipts were moderate, but quite equal to the demand. Prices ruled steady to strong, as follows: Turkeys, 22c. to 25c.; geese, 14c. to 16c.; ducks, 16c. to 18c.; chickens, 16c. to 17c.; fowl, 12c. to 13c.

TORONTO SEED MARKET.

Alsike No. 1, per bushel, \$11.50 to \$12.50; alsike No. 2, per bushel, \$10.50 to \$11; alsike No. 3, per bushel, \$9.50 to \$10; red-clover seed, Ontario-grown, \$7 to \$9 per bushel; timothy No. 1, per oushel, \$1.90 to \$2.25; timothy No per bushel, \$1.25 to \$1.60.

HIDES AND SKINS. No. 1 inspected steers and cows, 14c.; No. 2 inspected steers and cows, 13c.; No. 3 inspected steers, cows and bulls, 13c.; country hides, cured, 12c.; country hides, green, 11c.; calf skins. per lb., 15c.; lamb skins, \$1 to \$1.25; horse hides, No. 1, \$3.50 each; horse hair, per

lb., 37c.; tallow, No. 1, per lb., 51c. to 6 c. FRUITS AND VEGETABLES.

Fruits and vegetables are still coming forward freely at reasonable prices. Apples—Spies, No. 1, \$3.50 to \$3.75; Spies, No. 2, \$2.50 to \$2.75; Greenings. \$2.50 to \$3 per barrel; fall apples, \$2 to \$2.75; cabbage, '40c. to 50c. per dozen; beets, per bag, 75c.; carrots, per bag, 75c.; turnips, per bag, 40c. to 50c.; parsnips, per bag, 60c.; celery, per dozen, 50c. to \$1; hot-house tomatoes, 28c. per lb.; wax beans, imported, \$5 per hamper; grape fruit, per box, \$3 to \$3.50; hot-house cucumbers, per dozen, \$2.25 to \$2.50.

John Miller, Brougham, Ont., in or dering a change of his advertisement. writes: "I have had a very good demand for sheep, and have only what I want for breeding purposes left. The young Shorthorn bulls I am offering for sale are a fine lot, good enough to head the very best berds class feeding steers from. Am quoting very low prices in order to make quick

Montreal.

Live Stock .- A very fair trade took place in cattle last week, and prices held about steady. Best steers sold at 61c. to 64c, per lb., while fine brought about 5ac., medium 5c. to 5ac., and common ranged from 4c. to 5c. Canning stock sold down to about 3c. per lb., and there was a fair export demand for them, several carloads being shipped to the United States. Lambs held steady. at about 71c. to 71c. per lb., and sheep at from 4c. to 51c., according to quality. Calves sold at \$3 to \$6 for common, and up to \$12 for fine. Hogs showed little change, selects selling at 94c. to 94c. per lb., weighed off cars.

Horses.-The demand for horses was very light, but the supply was not large. so that prices were steady, as follows: Heavy draft, weighing from 1,500 to 1,700 lbs., \$300 to \$400; light draft. 1,400 to 1,500 lbs., \$225 to \$300; light horses, 1,000 to 1.100 lbs., \$125 to \$200; broken-down animals, \$75 to \$125, and choice saddle and carriage animals, \$350 to \$500 each.

Poultry.-Recent mild weather took the heart out of the poultry men. However, prices showed very little alteration. being as follows: Turkeys, choicest sold at 22c. to 23c. per lb.; ducks, 15c. to 17c.; fowl, 11c. to 13c.; geese, 13c. to 14c., and chickens, 14c. to 16c.

Dressed Hogs.-Abattoir-dressed, freshkilled hogs, sold at 13 c. to 13 c. per lb., and country-dressed at 12%c. to 18c. for light weights, and 12c. to 12ic. for heavy.

Potatoes.-Green Mountains have been coming forward more freely, possibly because of the mild weather, and the market showed a tendency to ease off a little. Car lots sold at 75c. to 80c. per 90 lbs.; Quebec grades at 75c, to 80c., track. In a jobbing way, prices were about 20c. more than these figures. Eggs.-The market showed a rather easier tendency, and it was stated there had been importations of Americans to this market. Fresh-laid stock was not so scarce, and prices not very definite. Select stock could be had at about 29c. to 30c. per dozen, while No. 1 storage stock was about 25c. to 26c. or 27c.

per dozen. Syrup and Honey.-White-clover comb honey sold at 16c. to 17c. per lb., extracted being 111c. to 12c. Dark comb honey was 14c. to 141c., and extracted. 8c. to 9c. per lb. Maple syrup, 8c. to 8ic. per lb., in tins, and 6ic. to 7c., in wood. Sugar, 81c. to 9c.

Butter.-The mild weather had a rather weakening effect upon this market also. Choicest makes were 29c. to 30c., and next quality at about 28c. to 29c., while the fresh makes were about 26c. to 27c. and dairies around 25c. to 26c.

Grain.-The tone of the market for oats was a shade firmer, being $42\frac{1}{3}c$. t_0 48c. per bushel, for No. 2 Canadian Western. car lots. ex store; erican yellow corn, about 61c. per bushel.

Flour.-Manitoba spring wheat, first patents were steady, at \$5.40 per barrel, in bags, seconds being \$4.90, and strong bakers' being \$4.70. Ontario patents were \$5.35, in wood, and straight rollers, \$4.95 to \$5, wood being 30c. dearer than jute.

Millfeed.—Bran held steady, at \$20 per ton, and shorts at \$22, in bags, while middlings were \$27. Demand was very fair for feeding purposes.

Hay .- This market was reported unchanged. Carloads, track, Montreal, for press d hay: No. 1 hay, \$14 to \$14.50 per ton; No. 2 extra, \$13 to \$13.50 per ton; No. 2 ordinary, \$12 to \$12.50; No. 3 hay and clover mixture, \$10 to \$11 per ton.

Hides.—Beef hides were 1c. down, at $12\frac{1}{2}c.$, $13\frac{1}{2}c.$ and $14\frac{1}{2}c.$ per lb. for Nos. 3, 2 and 1; calf skins, 1c. down, being 14c. for No. 2, and 16c. for No. Sheep skins were 10c. up, being \$1 each. Horse hides were steady, being \$1.75 each for No. 2, and \$2.50 for No. 1. Tallow steady, at 6c. to 6½c. per lb. for refined, and 1½c, to 3c, for rough.

Chicago.

Cattle.—Beeves, \$5.85 to \$9.20; Texas steers, \$1.70 to \$5.70; Western steers \$5,40 to \$7.15; stockers and feeders. \$4.30 to \$7.60; cows and heifers, \$2.75 to \$7.40; calves, \$7 to \$11.

Hogs.—Light, \$7.30 to \$7.57½; mixed \$7.30 to \$7.60; heavy, \$7.10 to \$7.60;

rough, \$7.10 to \$7.25; pigs, \$6 to \$7.45.

Sheep and Lambs .- Sheep, native, \$4.65 to \$6.25; Western, \$4.75 to \$6.25; yearlings, \$6.40 to \$8.15; lambs, native. \$6.70 to \$9; Western, \$6.70 to \$9.

Buffalo.

Cattle.-Prime steers, \$8.75 to \$9; butchers', \$6 to \$8.70; bulls, \$4.50 to \$6.50; stockers and heifers, \$4 to \$4.50; shipping, \$7.50 to \$8; heifers, \$4.75 to to \$8; cows, \$3.25 to \$7; stockers and feeders, \$4.50 to \$6.75; fresh cows and springers, \$35 to \$78.

Veals.-\$4 to \$12. Hogs.-Heavy, \$7.75 to \$7.85; mixed, \$7.85 to \$8; Yorkers and pigs, \$7.90 to \$8; roughs, \$6.90 to \$7.10; stags, \$5.50 to \$6.50; dairies. \$7.60 to \$7.90.

Sheep and Lambs.-Lambs, \$6 to \$9.25; yearlings, \$5 to \$8.25; a few. \$8.35; wethers, \$6 to \$6.40; ewes, \$3.50 to \$5.75; sheep, mixed, \$4.50 to \$6.

GOSSIP.

SALE DATES CLAIMED. Jan. 31st.—John Semple, Milverton,

Ont.; Clydesdales. 5th.-Annual Consignment Sale, Toronto: Shorthorns.

Feb. 5th.-T. H. Hassard, Markham, Ont., sale at Toronto; Percherons and Clydesdales. Feb. 7th.—Graham - Renfrew Co., Bedford

Park, Ont., at Burns & Shephard's Repository, Toronto; Clydes and Hackneys.

Feb. 12th.-Fred Bogart, Kettleby, Ont.; Shorthorns.

Feb. 25th and 26th.—Union Stock-yards Co., Ltd., Toronto; Clydesdales and Percherons.

March 5th.—Annual Contribution Sale of pure-bred cattle, at Guelph, Ont. March 6th .- James Cowan, Seaforth, Ont.; Shorthorns.

A HOLSTEIN PEACE CELEBRATION. J. E. K. Herrick, Abbotsford, Que., President of the Holstein-Friesian Association of Canada, sends "The Farmer's Advocate" a memorandum stating that the Holstein-Friesian breeders of Canada and the United States have become infected with the peace centennial jubilee spirit of the mother country, and are completing arrangements for a peace jubilee that promises unity of action and harmony of purpose in the way of co-operation in perfecting rules of entry, registration fees, and custom-house regulations. The recent plan suggested by leading Holstein-Friesian breeders of the Dominion to refer all matters of difference between the Canadian Herdbook Associations to a joint committee composed of three members of each organization, is commended as a move in the right direction. Mr Ho

ses a resolution sug gested for adoption at the annual meeting of the Canadian Holstein-Friesian Association. This resolution proposes to invite the American Commission to appoint a conference committee of three to confer with a like committee from the Canadian Association. A final clause proposes to establish that such rules relating to registration and fees on animals passing the border line between Canada and the United States as may be fixed by the said conference committee shall remain in force until annulled by a two-thirds vote of either association at a regular annual meeting. The matter will doubtless come up at the forthcoming annual meeting in Toronto.

TRADE TOPICS.

Elsewhere in this issue appears the annual meeting report of the Canadian Bank of Commerce, which merits a careful perusal by our readers, not only because of the remarkable progress of this great monetary institution, but on account of the keen public interest in banking subjects at the present time.

Attention is called to the new advertisement of "Ontario Seed Co. Successors," of Waterloo, Ont., in which it is stated that the mangel, "Ideal," which has shown the highest comparative value and yield per acre, as shown in the tabulated report of co-operative experiments which appeared in our January 16th issue, page 87, can be had only from the above-named firm.

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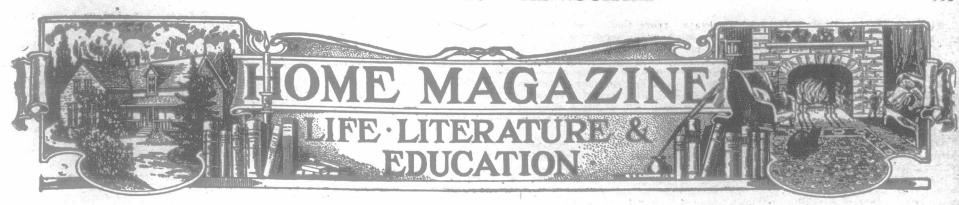
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The Author of "Rebecca of Sunnybrook Farm."

By Alice Blythe Tucker Wilcox.

Not long ago I was talking to a friend who had lately met Kate Douglas Wiggin. "Did you like her?" I asked, knowing pretty well what the answer would be. "Like her? Why, I loved her at once. Who could help it?"

The words of my friend voice the opinion of all who know the gifted author of "Rebecca of Sunnybrook Farm," and other charming stories. Her kindness of heart and the charm of manner that results from it, win everyone. Unlike many successful writers, Kate Douglas Wiggin meets you directly and simply, without affectation and without posing. And she does not save herself for literary people; in New York she is known personally by all classes, rich and poor, old and young, and in her country home, in a farming district of Maine, she is beloved by all. It was her childhood home, and naturally everyone is very proud of her. To the old people she is still the "Kate" of years ago, while the young look up to her as the gracious embodiment of their best ideals.

One would know from her books that Kate Douglas Wiggin's greatest interest in life is found in children and young people. Although denied children of her own, she is one of the biggest - hearted mothers I have ever known. Indeed, someone has called her "The childless mother of America's motherless chil-Any child appeals to her, but it is the motherless waifs that touch most keenly her kind heart. She is a constant visitor at, and helper in, the kindergarten of New York's East Side, and it is characteristic of her, that, for the poor little ones who seldom see beauty in any form, she dresses in her prettiest and best. One can imagine what it means to these tots of the tenements to have such a beautiful, radiant, and helpful visitor, and one who never leaves without leading in a game or telling a story. For Kate Douglas Wigherself, is an expert kindergartener having founded and taught the first Free Kindergarten in San Francisco many years ago when she was only a young girl. It was to get money to rent a larger room for her classes that she ventured to write "The Bild's Christmas Carol." So successful was this, her first book, that she decided that she could best meet the needs of the little children in the city on the Pacific slope by giving up actual teaching and devoting all her time to writing stories, the proceeds of which would go toward expanding the free-kindergarten work. Since then, book has followed book, some not so laughter-provoking, and yet heart.touching as "The Bird's Christmas Carol," but all charming, and gll dealing with phases of child life. Her greatest success was reached when "Rehecca of Sunnybrook Farm' made its appearance. The little girl wearing her coarse and homely dress, buttoned down the front, that no time might be lost from a busy life in the process of dressing, but clutching her cherished pink parasolsuggesting the inherent love of beauty and idealism in the child that no poverty had power to destroy-has made herself known and beloved everywhere.

One of the very interesting things about "Rebecca" is that she has made an actual place for herself in the author's home. Last winter I was having luncheon with Kate Douglas Wiggin in her New York apartment. It was served in the library, as no other guest but myself was present. Photographs of Relecca as she is characteristically em- what Carlyle's wife said to him when,

west, were everywhere on wall spaces, and on tables, and from where I sat I could see on the piano in the next room Rebecca's identical pink parasol, while not far from it was the hat she wore on the stage journey from Sunnybrook

"She might be a daughter gone out for a while," I remarked.

"And to think that when I brought her into the world I was so discouraged about her!" exclaimed my hostess. "My experience helps to prove that it is hard for an author to estimate rightly her said, "Kate, this book is by far the

dramatized version of the story, which read to her his finished Sartor Resartus. has appeared north, south, east, and "It is a work of genius, dear," she assured her husband. Although the book received, at first, no recognition, time has confirmed Mrs. Carlyle's verdict. Surely it is good to know that, as in these cases, husbands and wives are often so bound together in sympathy that an insight into the true value of each other's achievements is given without the encouragement of which the world would be left the poorer by much that it now considers worth while.

By the way, Kate Douglas Wiggin's married name is Mrs. George Riggs, her for an author to estimate rightly her husband being a well-to-do business man own work. It was my husband who of New York. Every spring, Mr. and Mrs. Riggs go abroad for a few weeks, best you have ever written. It will be returning in the early summer to the your greatest success." I shook my farm house in Maine, where "Rebecca"

bodied by Edith Talliaferro in the sick and discouraged over his work, he Perhaps you know I have actually edited a cook-book !"

As she spoke, she took from a table a book of some hundred pages, attractively bound in blue and white, and proceeded to write in it, "From Kate Douglas Wiggin—better editor than cook l''
But, as I told her then, and as I think even more strongly since I have tried some of the recipes that appear under her own name, "I has ma doots o'

For the author of "Rebecca of Sunaybrook Farm" is one of those interesting and seldom-met women who combine in a remarkable degree the qualities and talents which one thinks of as purely feminine-possibly, in this case, a result of her New England upbringing - with the artistic and literary insight, and the power of close application that help to make the successful author. Of course, Kate Douglas Wiggin is, first and foremost, the writer-and glad and thankful we all are for this-but she is also what we still like to think of as the womanly woman, one whose heart finds satisfaction in the life of the home. And she has unbounded faith in the influence of the home on character. Indeed, this is the theme of her latest book, "Mother Carey's Chickens." And those who wish Carey's Chickens." And those who wish to know her as she is in mind and heart, could not do better than to read this book, for "Mother Carey" is an unconsciously drawn, but none the less faithful study of the the author herself, doing exactly what one knows she would do if placed amid circumstances similar to those in the story.

Someone says Kate Douglas Wiggin could not depict a villain if she triedunder her touch he would gradually become a delightful person, whom we all should perforce love. In truth, her stories prove that she believes in the innate goodness of human nature, and it is this belief that makes both her and her books powerful influences for good.



Kate Douglas Wiggin. Author of "Rebecca of Sunnybrook Farm," and other stories.

country about my little Rebecca would York. seem to prove that my husband was right."

Then the author told me further of to write had meant to her-of how he had constantly encouraged and helped her by his advice and sympathy. The story was similar to that which another gifted writer had told me only a short time before, and it also reminded me of

head despondently enough, but the let- and many other books have been writters I still receive from all over the ten. The winters are spent in New

"Here I do very little writing," the author told me. "Mr. Riggs and I have so much to see and hear, so many to what her husband's faith in her power visit and be visited by, so much interesting work for children to get in touch with, that I can find time for only a stray article now and then. "And, of course," she added, "I have my housekeeping duties here, for, unlike many who spend only a few months of the winter in New York, I really keep house.

The Windrow.

R. W. Service, the poet of the Klondike, has been for some weeks in the Balkans, where he went in search of new literary material.

The doctors and dentists of Winnipeg have been demanding that the Legislature take steps to prevent the sale of "comforts" for babies.

district to all the weeks of the second A paper cloth, to be known as "textilose," is to be manufactured on a large scale at Manchester, England.

. . . . Nine theaters in New York are dispensing with their orchestra and installing organs, which are veritable orchestras in themselves, being fitted with attachments to produce the effect of all the instruments in an orchestra.

. At this late date, it has been decided to erect, in Salem, Mass., a statue of Nathaniel Hawthorne. The long neglect has been due to the fact that Hawthorne, never popular during his lifetime because of his extreme shyness and reticence, embittered the people of Salem by his writings, in which, they declared, he had "slandered" some of the Salem folk. Now the descendants of these same folk are beginning to recognize that "lazy Nat Hawthorne" was, in truth, a very great genius, and that upon his memory alone the fame of Salem rests. The statue, as planned by Bela L. Pratt, will represent the author sitting on a rock covered with seaweed, as though looking out to sea, resting, as he did so often, on the long, solitary

the New England coast.

Angeles, California, the credit for havcity or district in the United States. To begin with, the lowest classes, the kindergarten, have been turned right out of doors, the only structure approaching a class-room being a platform, provided with a roof and sliding sides, which may be drawn in case of a storm. The mildness of the climate permits of the use of such class - rooms during the entire One department of the school is devoted to study of the child himself, with the aim of finding out, by experiment, what he is good for, and what special activity he most enjoys. This department has been instituted for the purpose of preventing missits in life.

A hygienic department has also been installed. Hygiene is a part of the curriculum. The child is taught to be healthy. There are seven school physiclans, four of them men and three women, and there are seven school nurses. The physician in charge has elaborately equipped medical offices, and his work covers all phases of medicine and surgery, nervous, as well as purely physical disturbances, being cared for: Here is a solution of the sex problem. It is not yet safe to put this in the hands of untrained teachers, but a school department of hygiene covers the case. The board has even erected a hospital, where those children can remain and be provided for whose cases cannot be cared for in a single day.

Hope's Quiet Hour.

Faithful unto Death.

He that is faithful in that which is least is faithful also in much : and he that is unjust in the least is unjust also in much.—S. Luke xvi.: 10.

"In Life's small things be reselute and great,

keep thy muscle trained : knowest thou when Fate Thy measure takes, or when she'll say

to thee, "I find thee worthy; do this thing for me?' -Lowell.

A young man once applied to an old friend of his father's for a position in his store. He was offered work which seemed very trivial and below his powers, but accepted the situation with cheery good will. The e was no slihad to work with his because he hands, in tend of sepping at once into the more important brain-work for which his natural talents and thorough education had prepared him. Week after week he attended faithfully to his various unimportant duties, and apparently his employer had forgotten his existence. Six months slipped by, and-like a new

broom-he still "swept cean." Then he was unexpectedly offered a splendid position in the business. His employer had been quietly "taking his measure," and was convinced that a man who was so steadily faithful in little things, could be depended on in larger matters. A straw shows, far better than a cathedral, which way the wind blows. If you want to judge character, study men in their way of doing little things. Our Lord knew human nature thoroughly, and He has told us that one who is faithful in trifles will be faithful in important matters; and one who is unfaithful in trivial matters is not to be depended upon in

anything. What a splendid recommendation it is of any one when people say of him: "He is absolutely reliable, and to be depended on." They never say that about the person who is often late for an appointment - carelessly stealing the preclous time of others-or who constantly neglects to return small loans, or who forgets a promise as soon as it is made. Such a person may be very faithful in the performance of some important work which he knows will be noticed. To do a conspicuous thing splendidly does not

walks which he was wont to take along always prove that a man is faithful. Sometimes it is only the outward sign of his ignoble ambition to be admired. "A man really is what he is when An article in the Independent, entitled alone," not what he appears to be when "The Ideal School System," gives Los he is wearing company manners. A Angeles, California, the credit for have wise men said many centuries ago: ing established a school system more 'Most men will proclaim every one his nearly perfect than that of any other own goodness: but a faithful man who can find?"

It is not strange that God takes notice of such small kindnesses as the giving of a cup of cold water to one who is thirsty. It is always the motive prompting the act which makes the act beautiful or otherwise; and there is little chance of self-display in such a small

on the right hand of the King are blessed because they gave to the rich and great. It is their gifts to "the least" of His brethren that especially please the King. So, also, those condemned because they had neglected "the least," may possibly have attended very diligently to other things which they considered important.

Life is built up entirely of little things. A great tree owes its greatness to many little acts done by its small and insignificant members. Day after day, year after year, the leaves and roots and drops of life-giving sap did their unnoticed work, secretly and faithfully. It seemed so little for each one to do, but



The Study at "Quillcote," where "Rebecca" was Written.

especially kind to the people who go from door to door trying to sell small articles. She was poor, and could not buy much from them; but she spoke in friendly fashion-instead of saying curtly: "I don't want anything to-day." Sometimes when they looked very weary and sad, she would ask them to rest, and would offer a drink of water or a cup of tea. Such a beautiful servicehidden from the world-must be very dear to the King, Who accepts as a gift to Himself any real kindness shown to one of the least of His brethren. In Matt. xxv.), we are not told that those must be upon precept, precept upon pre-

kindness. A woman once decided to be if it had not been done there would have been no splendid tree. No baby can become a man by one great effort. takes years of faithful work done by the hidden servants - lungs, heart, etc .- to novelty wore off, and the work became build a man. No one can become a thing else of importance—unless he goes through a lot of patient drudgery. The city of Jericho was taken by Joshua's army; but not until the army had marched round and round the walls, day after day, patiently and faithfully. An a few volunteers were absolutely reliable, ignorant child may become a learned man, but the great result can only come the story of the Last Great Day (S. from years of faithful work. "Precept able to attend.

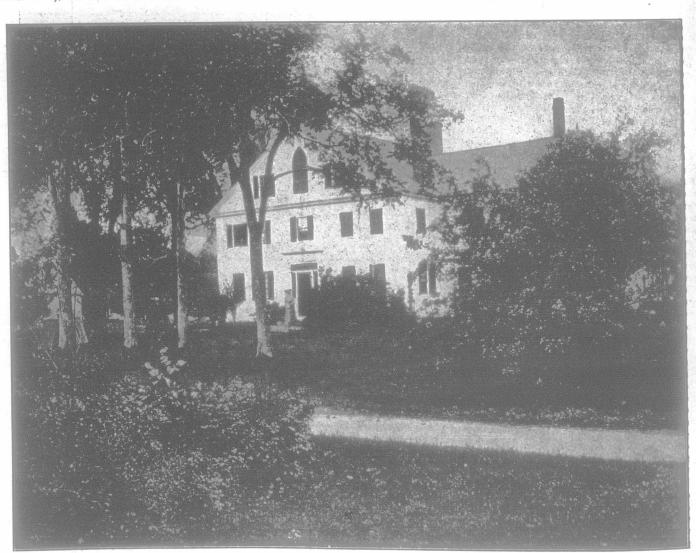
cept; line upon line, line upon line; here a little, and there a little."

We are beginning another year, and we desire earnestly to make it a precious and beautiful gift to God, and of real value to our fellows. Don't let us feel discouraged if the work pressing upon us each day seems trivial and unimportant. The one thing of real importance is that we should do it faithfully. Christ could easily feed the five thousand hungry peoule, but the five little loaves and two small fishes must be given freely if great things were to be done by their means. God could multiply the loaves-that was easy-but it was a fine thing for the lad to give away food he needed for his own hunger. He might easily have said: "My loaves will be enough for Me, but they are not worth giving away." Even St. Andrew, who had been so long used to his Master's power, thought that the lad's gift of loaves and fishes was not worth considering: "What are they among so many?" he asked, faithfully. But JESUS answered his despairing question promptly and hopefully: "Make the men sit down." He had asked: "Whence shall we buy bread, that these may eat?" and the lad's whole-hearted offering of his scanty supply of food was all the answer He needed. The feast was ready-let the men sit down.

We are so disappointed if we have to "waste" our lives in doing unimportant work. How blind we are! God can easily do the "large" things-through our gifts or without our help-but He can never force our faithful service. If He did, the service would be no longer faithful. We have the power to give Him something of priceless value-our faithful service unto death. The kind of service that can be depended on.

When I was in charge of a social settlement, the volunteer workers were a constant problem. Some of them were very enthusiastic at first, clever and interested and eager. But when the monotonous and uninteresting, some of scholar, a musician, a painter-or any- them became careless and unfaithful. The weather, a headache, or another engagement, would be considered sufficient excuse for neglecting the work they had undertaken. One stormy day I had to look after seven classes at once. But I was confident that they would be on hand, rain or shine, unless absolutely un-

Genius, beauty, or charm of manner,



"Quillcote," Maine, the Summer Home of Kate Douglas Wiggin.

ED 1866

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THE FARMER'S ADVOCATE.

are of small value as compared with everyday faithfulness.

It is said that when the Emperor of Japan was going on a railway journey, not long ago, he insisted that all the men who were on his train must be Christians. It was not that he was a Christian himself, but he knew that Christians-in Japan-could be depended on. There was no temptation for a man to be a Christian only in name.

What a grand thing it would be if the name of Christian were a guarantee of faithfulness—in small things as well as in large-all the world over.

What will our year be like? Probably it will be much the same as last yearoutwardly.

"A New Year? Well, we will call it so, But each new shower is the same old rain :

And the New Year, some of us happen to know, Is only the old one over again."

That is the outside. What will the inside be like? Shall we put new gladness and faithfulness into the doing of the old tasks, being especially faithful when no one but God will notice? Then He will be able to do great things with our lives, as the ready gift of the boy to Christ was used to feed a multitude then, and has inspired millions

since.

Yesterday I heard a very tiny boy on the street say to a still smaller comrade: "I know what policemans is for. They guards the world while people are asleep, so no thieves can get into the houses and steal things." The English was faulty, but the words were an inspiration. On duty while others slept, faithful with none to see, safeguarding the property of others! There is romance in the life of a policeman on night duty, and God showed it to me through a little child. We lie down in peace and yield ourselves to the helpless unconsciousness of sleep, while the silent policeman - unnoticed and unthanked guards our interests. He is doing the work of God, Whose glory is his faithfulness. How do we know that these cold winter days will be followed by spring and summer? How do we know that the darkness of night will die before the glory of day? How do we know that life is waiting for us on the other side of death? We know, because God has proved Himself faithful-He has never failed us yet. He is faithful to reward righteousness with gladness, and to check wrongdoing by making the way of transgressors very hard and painful. His law of gravitation holds the great worlds in their places, and is never unfaithful to the most insignificant scrap of dust. He faithfully bestows beauty on the wayside flower, although the evening star has to be lighted, The flower is not neglected, even though no human eye may see its delicate coloring and give praise to its Maker and its

That last word is the key to real faithfulness. If we are to win the "Well done!" of our Lord, we must love His service. The cup of cold water must be gladly given. His love for us is so great that anything which interests us is important in His eyes. Even the hairs of our head are numbered. The grass is green and the sky is blue for our sake. Even each separate snowflake is perfect in its star-like beauty, and Jack Frost paints pictures on our

God-our Father-has always been and will always be faithful to us. Let us resolve this year to be more faithful than ever before, and especially faithful in little things which no one but God will notice.

soul-

The old year was done;

'Dear Father, hast Thou a New Year for me?

I've spoiled this one?' He took the old year, stained and T is for Tooth-brush, used three times

blotted. Kind gave me a new one all unspotted,

And into my sad heart smiled— 'Do better now, My child.''

The Beaver Circle.

OUR SENIOR BEAVERS.

[For all pupils from Senior Third to A Boy's Life on the Farm. Continuation Classes, inclusive.]

Health Alphabet.

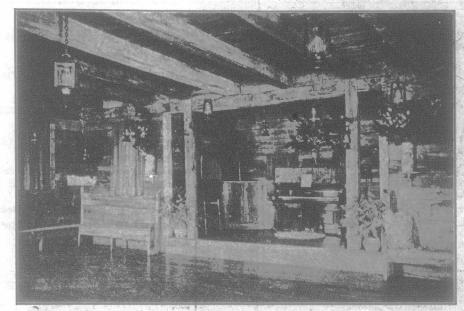
A is for Adenoids, which no child should

B for right Breathing, to give the lungs tone.

Z is for Zest. Help the good work -The Survey.

Ever since I was big enough to get the cows and do such small chores as feeding hens and carrying wood, I have had a busy life.

Since I was about six years of age I have had my regular chores, getting the cows and carrying wood. Of course, I thought it was too much for a small



The Barn at Ouillcote.

As Mrs. Riggs has had it made over for an amusement hall for the boys and girls who live near her summer home.

neglect,

D for the Dentist, who finds tooth defect, E is for Evils of foul air and dirt, F is for Fresh Air - too much cannot

hurt, is for Gardens, where boys and girls play,

H is for Hardiness gained in that way. is Infection from foul drinking-cups, J is for Joy in the bubbling taps, K is for Knowledge of rules of good

L is for Lungs, whose soundness wealth.

health.

feelings.

Then the time came when I wanted to learn to milk. I was refused a few times, but at last I got started, milking one cow. This was not as easy as I had thought, so I wanted to quit, but my father and mother said no, I must stick with the job. I did, and, of course, learned to milk, and was glad when winter came, and that cow "dried up." My work through the winter was very slack, as I was not asked to do much, but the next summer was a busy

is for Cough, which we should not boy, but it never hurt anything but my

We had some spring calves runone.



Three Jolly Little Lads are We. (Photo by B. Serles, Burford, Ont.)

"I went to the Throne with quivering M is for Milk; it must be quite pure,

N is for Nurses, your health to insure, O is for Oxygen, not found in a crowd.

P is for Pencils-in mouths not allowed. Q is for Quiet, which sick people need,

R is for Rest-as part of our creed, S is for Sunshine to drive germs away,

a day, U is for Useful health rules in the school,

V is the Value of learning these rules,

DORA FARNCOMB. W is Worry, which always does harm,

ning in an orchard next to the house, and I undertook breaking them in. This was good practice for me, as the calves were wild. My older brother made me a singletree, and after I had got one calf pretty well broken in, I got a harness and drew all the brush from the

The older I got the more I wanted to do, so when I was about ten years old my father allowed me to break in the spring colt. I started when he was about a week old. I was not allowed

orchard after it was trimmed.

X is 'Xcess-indulge in no form, to use a whip, but had a halter, and Y is for Youth, the time to grow strong, a plowline which was made into a breeching shape. I can well remember the first colt I broke. My father took the plowline, and, doubling it in the center, he then tied a knot so that the loop would be around the colt's hip and the knot on his back, then the ends were put each side of his neck and through the shank ring, then, when he stopped, I would pull on the plowline and he would come right along.

I still use the same method, and find jerking and whipping quite unnecessary. I have now broken in six colts, and last fall had the pleasure of seeing three take prizes at the Sutton Fair, and three at Queensville, the two oldest, three and four, taking first as agricultural team, and the year-old taking second, as general-purpose. This was the Sutton record. At Queensville, the team took second out of class of one- and twoyear-old Percherons.

The farm that we work contains 150 acres. , In the back field we have a gravel - pit of about 1 or 11 acres, and from 15 to 20 feet deep. It is fine gravel, and a lot is used for comentmaking. There is a spring on the farm, and the horses and cattle can have a drink whenever they want it. We have no rough pasture-field or hush, so have to keep seeding down different fields. We have only two hills on the farm, and only two obstacles to work around. These are two shade trees,

The barn has a windmill on it, and with this we grind our feed, pulp our roots, run the cutting-box and the grind-

The grain is unloaded with slings, and we have a rack-lifter to take the rack off the wagon. In the fall when we are drawing in roots, we take the two racklifter ropes and fasten them together under the front of the wagon-box (the root cellar is under the barn floor), then we take up the door, and after putting a screen under the back end of box, we remove the end-board and let the horse draw up the front of box, then down go the turnips or mangels into the

Our stables are under-ground, and are certainly handy. The root cellar is in the center. The stock all stand facing it. The cows are at the north and cast, the horses at the south, and there is a row of stalls along the west for either cows or colts. Behind the stock is a hallway seven or eight feet wide-This runs all the way around the outside. . For cleaning out the stable we have a high stone-boat. We hitch a horse to it, and some in the east door behind the horses and clean out the cow stable. The first load can be taken from the west and north side and out of the cow-stable door, which is also at the east; then we come in the horsestable deer and go along the east side nd back to the horse stable. This is almost as good as a litter-carrier. stone-beat being high, it can easily he upoet ever any small lump. We have n small, black dog, that rides in the under part of the stone-boat when he feels like it.

I am well satisfied with my farm life, and intend to stay at it.

WILLIE KING.

Belhaven, Ont. We think this letter worth a prize, Willie, so are sending you one.

Senior Beavers' Letter Box

Dear Puck,-Thank you very, very much, for that lovely prize I received for the doll's dress competition. I thought two or three times, when I was making the dress, I would give up, but I am glad I didn't. It pays to try, try again, "If at first you don't succeed." I think it is just beautiful.

MABLE SOLLITT (age 11, Class IV.). Uxbridge, Ont.

Bear Puck and Beavers,-I have seen your letters in "The Farmer's Advocate," and enjoy reading them. I five on a farm. 'We have about seventyfive acres. We had a sale a year ago. and I worked out last summer at "a place where the man had two nice little colts. I worked there about two months, and have them pretty well trained, especially the eldest one. It



Add water to milk-You weaken the milk. Add soft wheat to flour-You weaken your flour.

Cheapens it too.

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Soft wheat costs less—worth less. Soft wheat flour has less gluten less nutriment.

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Use Manitoba flour-Manitoba hard wheat flour.

Having everything the soft stuff lacks. Five Roses is all Manitoba. Without a grain of cheaper wheat. Strengthen your food values.

Not Bleached

is so well halter-broken that I can lead it with a piece of binder twine. ROLAND ATKIN.

(Age 13 years, Sr. IV.) Atkin P. O., Ont.

Dear Puck and Beavers,-My father has taken "The Farmer's Advocate" for aearly ten years, and I have been reading over the letters in it and thought I would like to join the Beaver Circle. For pets I have a dog named Rover, who will come every time you call him, and a horse that we call Dolly. She will shake hands with me, and eat sugar out of my hands. I guess this will be all. Wishing the Circle every success.

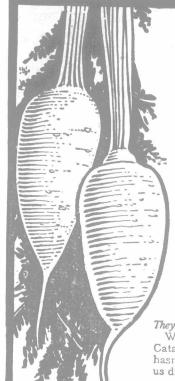
ALBERTA ALLISON. (Age 12, Sr. III. Class.)

Moffat, Ont.

Dear Puck and Beavers,-This is the first I have written to your Circle, and would like to join. I like reading the letters very much. We threshed in November, and the engine couldn't pull the separator up the hill, so they hitched on three teams of horses to pull it up. I have a cow; I call her Daisy. She is white in color. I can get on her back when she is standing up or lying down. I milk her sometimes. We have the stanchions, and a litter - carrier in the stable, and the cows are as happy in the stanchions as in a large clover field. My father keeps bees. We have lots of fun when we extract. We get the wax and honey that is cut off the frame. am in the Senior Third Class. I passed my exams. at midsummer. I will close, wishing the Beavers every success. If I see this in print I will write again.

FLORENCE CULHAM. (Age 10, Book Sr. III.) .Summerville, Ont.

Dear Puck and Beavers,-As this is my first letter to your Circle, I hope it is



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The proverbial "pig in a poke" was not a more uncertain purchase than are garden seeds if you do not know that there is a reliable firm behind them.

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WM. EWING & CO., Seedsmen McGILL ST., MONTREAL.

not for the waste-paper basket. I have called Standon. I am in the Sixth a brother and sister in Canada. My Standard at school. I have one brobrother has been there over a year, and has sent us "The Farmer's Advocate" since Christmas, 1911. I hope to go to Canada when I leave school. We have a new schoolmaster at our school, and Wishing the Beavers every success. he is very sharp to what the old one was. Our school is about one mile from my house, and it is at a place Puckeridge, Herts, England.

ther younger than myself, and he is going to write to you the same time as I. My father is a carman, and drives a wagon and works at hay and straw. JOHN H. SAVAGE.

(Age 11, St. VI.).

Riddles.

What time is it when the clock strikes thirteen? Ans.-Time it was fixed.

Why is spring the most dangerous sea-Ans.—The flowers have pistils (pistols), the leaves are shooting, and the bulrush is out (bull rushes out) .-Jimmie Kerr (age 10), Milverton, Ont.

As I was going through the gate I saw a little green house. In the green house was a white house, in the white house was a red house, and in the red house were a lot of darkies. - Guess the answer.—Sent by Gladys Elsley (age 12), Nassagaweya, Ont.

Why does a cow look over a wall? Ans.-Because she can't see through it. What is the first thing a boy does when he gets into the water? Ans .-He gets wet.

What does a watch do when it is left upstairs? Ans.—It runs down.—Sent by Kathleen Dennis (age 11), Crewson's Corners, Ont.

OUR JUNIOR BEAVERS.

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

Junior Beavers' Letter Box

Dear Puck and Beavers,-I have always enjoyed the letters of the Beaver Circle, and thought I would write one, too. I have a pet dog; I call him Tossy, and two pet kittens. I go to school every day. I am in the Junior Second Class. My teacher's name is Miss Hogg. I like her very much. My father has taken "The Farmer's Advocate" for ten years. I will close now.

GRAHAM WRAY (age 8, Book II.). Glenfarrow, Ont.

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Book II.).

JANUARY 23, 1913

Dear Puck and Beavers,-I have for a pet a black cat, and its name is Doona. I am a boy eight years old, and I go to school not far from where I live. I have a governess to teach me, and her name is Miss Rose, and I like her very well. My school is connected with Standon school, where my brother John goes, My father has two horses; their names are Boxer and Prince. I hope to see my letter in print, so good-bye.

EDWARD J. SAVAGE (St. II.). Puckeridge, Herts, England.

Dear Puck and Beavers,-This is my second letter to the Beaver Circle. My father has taken "The Farmer's Advocate" for quite a number of years, and I enjoy reading the Beaver Circle very well. I am ten years old, and am in the Senior Second Class. We drive to school. We have two miles to go to school. My youngest brother has a pair of Guinea fowl. My oldest brother has seven rabbits. I am going to buy a pair from him. I will close. Yours truly. STEWART RIVERS. Folden's, Ont.

Dear Puck and Beavers,-My grandfather has been taking "The Farmer's Advocate" for about ten years. I like to read the Beaver Circle. I have a little kitten; I call her Timmy. When we are milking, I get in the manger and pet her. Our hired man came and took her to his place to catch mice. I hope you will enjoy my letter. FRANK HAM (age 9, Jr. III.).

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The Ingle Nook.

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

Dear Ingle Nook Friends,-Do you ever find even a short journey to be a revelation of human nature, sometimes in its beautiful phases, sometimes the very opposite?

This question has been suggested by a few observations made during last holiday-time, for never, perhaps, do people reveal themselves as they really are more clearly than during the holiday season, when trains are crowded, and there are all sorts of opportunities for the exercise of selfishness or otherwise.

At one point, on the little trip in question, we had occasion to change cars, and on going on board the second train, found every seat already occupied, and people standing in the aisles. More and more came, until there were perhaps fifteen or more who were unable to find seats, and among them, near the door, a woman with six little childrenyes, six, in these days of small fami-

Three of the smaller ones she managed to range on suit-cases in the aisle; the two eldest stood with her, while she held the youngest, a baby perhaps a year old, in her arms.

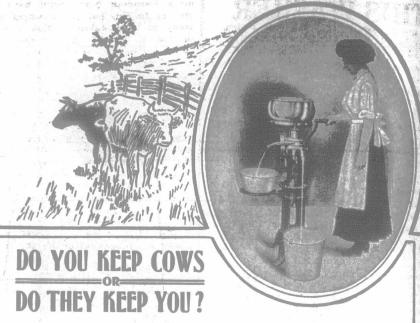
A young man who stood next to me, took out his watch. "They say we shall have to wait here three-quarters of an hour," he remarked, and I glanced to the end of the car where stood the woman with the six children. In double seats at her left sat four men, four fairly young, strong, able-bodied men, who were, apparently, having a hilarious time. Directly at her right sat two others of possibly eighteen and twentytwo, "big, husky fellows," at that. "Surely," I thought, "some of them will sous give up a seat to that woman and her babies."

But don't you ever think that they did! Until the three-quarters of an hour were nearly up, there they sat in a "what-we-have-we-hold attitude," and there the woman stood, looking more and more fagged as the minutes wore "Gentlemen seem plentiful in this country," remarked the young man next to me, sarcastically,-evidently an American, from the fact that he carried Washington time; and could one blame him for his sarcasm Could one do other than wonder where those five 'men" had been brought up, and what sort of training they had had?

To bring my story to an end, when the half-hour had been passed, the husof the woman came in. Taking i the situation at a glance, he whispered something to the two younger men. The light of intelligence at last broke over their faces. Apparently such a thing had never entered their heads before, but they now got up, willingly enough to all appearance, and so the mother and part of her little brood were at last comfortably settled.

Query: Is such callousness, or cadishness, or chumpishness, typical of any considerable proportion of the masses in Canada ?--- I have just loo'ed up that word "chump" in the dictionary, and find that, whether slang at first or not, it has now been accorded a place in reputable English. Isn't it expressive?

4. 4. 4. 4 A little farther down the line, after having secured a seat, I wanted a drink of water, oh, so much. There was still a group of boys standing near the door, and I wondered how I could reach the tank. Deciding at last to request that my drinking-cup might be passed along, I took it out, rather resolutely. Immediately a young man sitting across the aisle, raised his hat and asked if he might be permitted to bring me a drink. Returning, he gave me the cup of water, raised his hat again, and sat down. "A gentleman," was my mental note, "with lady-mother's training." I wish I could say that this young man was a Canadian, but he was not. He was, undoubtedly, English, both in appearance and speech. Of course, I know that



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TREAL

THIS WASHER

A MAN tried to sell me a horse once. He said it was a fine horse and had nothing the matter with it. I wanted a fine horse, but, I didn't horses much. And I didn't know the man very well either.

know the man very well
either.
So I told him I wanted to
try the horse for a month.
He sald "All right." but
pay me first, and I'll give
you back your money if
the norse isn't all right."
Well, I didn't like that.
I was afraid the horse
was'nt "all right," and that
I might have to whistle for
my money if I once parted
with it. So I didn't buy the
horse, although I wanted
it badly. Now, this set me
thinking,
You see I make Washing Machines—the "1900
Gravity" Washine & "1900
Gravity" Washine Machine as I thought about
the horse, and about the man who owned it.
But I'd never know, because they wouldn't
write and tell me. You see I sell my Washine

the horse, and about the man who owned it.
But I'd never know, because they wouldn't write and tell me. You see I sell my Washing Machines by mail. I have sold over half a million that way. So, thought I, it is only fair enough to let people try my Washing Machines for a month, before they pay for them, just as I wanted to try the horse.

Now, I know what our "1900 Gravity" Washer will do. I know it will wash the clothes, without wearing or tearing them, in less than half the time they can be washed by hand or by ary other machine.

ime they can be washed by hand or by any other machine.

I know it will wash a tub full of very dirty clothes in Six Minutes. I know no other machine ever invented can do that, without wearing the clothes. Our "1900 Gravity" Washer does the work so easy that a child can run it almost as well as a strong woman, and it don't wear the clothes, fray the edges, nor break buttons, the way all other machines do.

It just drives soapy water clear through the fibres of the clothes like a force pump might.

So, said I to myself, I will do with my "1900 Gravity" Washer what I wanted the man to do with the horse. Only I won't wait for people to ask me. I'll offer first, and I'll make good the offer every time.

Let me send you a "1900 Gravity" Washer on a month's free trial. I'll pay the freight out of my own pocket, and if you don't want the machine after you've used it a month, I'll take it back and pay the freight too. Surely that is fair enough, isn't it.

Doesn't it prove that the "1900 Gravity" Washer must be all that I say it is?

Doesn't it prove that the "1900 Gravity"
Washer must be all that I say it is? Washer must be all that I say it is?

And you can pay me out of what it saves for you. It will save its whole cost in a few months in wear and tear on the clothes alone. And then it will save 50 to 75 cents a week over that in washwoman's wages. If you keep the machine after the month's trial, I'll let you pay for it out of what it saves you. If it saves you 60 cents a week, send me 60 cents a week 'till paid for. I'll take that cheerfully, and I'll wait for my money until the machine itself earns the balance.

Drop me a line to-day, and let me send you a book about the "1900 Gravity" Washer, that washes clothes in six minutes.

Address me personally

Address me personally: A. S. MORRIS, Manager 1900 Washer

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many Canadian boys would have acted just as he did, but the question is, how many of them, taken as they come, out of the thousand? Surely the manners of a gentleman should be universal. There should be no class of society exempted from the privilege of gentle-

One more observation: A woman got up, took her little girl down to the tank, and gave her a drink from the general drinking - cup. The sight of it was enough to make one squirm. Didn't she know anything about germs! Did she never suspect that someone afflicted with tuberculosis, or with some of the loathsome diseases, might have drunk already from that very cup? How is it that it is so hard to knock into the heads of the general public the few simplest rules for health-preservation? A collapsible drinking-cup occupies but little space in a hand-bag; one can be bought for fifteen cents at Knox's; then why should anyone go, on even a short journey, unprovided with one?

On some of the trains the general drinking-cup has already been abolished. It is also being driven out, slowly, but surely, from the schools, and children are being required to use their own cups, and no others. In this, however, one difficulty has been encountered: It has been discovered that the children will insist on "lending" their cups. To prevent this, some of the United States schools have been supplied with paper cups, which are of no use after one using; in others, piles of paper are kept near the water-tap, and the children are required to make their own cups, by folding, as necessary. In many of the Canadian schools, as well as others, drinking - fountains which "squirt" the water into the mouths of the children, so that no cup at all is required, are being installed. One of these is now being placed in the schoolhouse in my own little home village, much to the satisfaction of the ratepayers. What is the system in your section? JUNIA.

A "BROMIDE."

Dear Junia,-I think it was in "The Farmer's Advocate' that I saw the rhyme, 'I want to be a Bromide.' In another paper, I see a man described as "a prig and a bromide." What does this word "bromide" mean when used in this way?

Lambton Co., Ont.

Looking in the dictionary, you find the definition of "bromide" to be-"A combination of bromine with a base"; that of "sulphite"-"A combination of sulphur with another element of base." Well, then, what possible connection can all this have with the lines of the parody, "I want to be a Bromide," etc.? Looking a little deeper, you find that bromides are given by physicians to quiet the nerves, while sulphur enters into the composition of such explosive substances as gunpowder and friction matches. In the doggerel quoted, then, a Bromide would indicate a conventional, platitudinous person, one who is never excited nor original,-the direct opposite from the Sulphide, or excitable, impulsive person. The words, you see, are used figuratively.

I hope you are not an extreme litera' ist, M. Y. I have taught school, and found out by experience how very difficult it is to explain figures of speech to members of that class. Possibly your failure to understand came from your not knowing the use to which bromides are put in medicine.

HANDKERCHIEF BAG.

Dear Junia,-I have been a silent listener to the chats, in your valuable column. We could not do without "The Farmer's Advocate" in our home very well. Will you please tell me, through your column, how to make a work-bag out of handkerchiels? I have seen some very pretty ones, and would like to make one for myself. Thanking you in ad-

Oxford Co., Ont. Can anyone answer?

CAKES AND BREAD.

Will you kindly let me have a few recipes for cake-making, also one for bread? Thanking you in advance. Chambly Co., Ont. MRS. G.

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Proof against Fire, Weather Lightning and Vermin

The best steel shingle made and the

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can be laid easily and quickly by any

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Corrugated Iron Siding and Roofing.

For barns, sheds, granaries, outbuildings, etc., can be covered at a low cost. No wood sheeting necessary.

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It will pay you to send a postal card to us and let us know your requirements. We sha'l be pleased to offer you plans and suggestions that will help you.

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Into the pockets of the users of The Peerless Way last year went five million dollars made from the poultry these people raised. Yet chickens are scarce in Canada and eggs are the scarcest of all food commodities. That is positively the fact.

To-day there are not enough Canadian CHICKENS or EGGS to go around. Thousands of chickens and hundreds of thousands of dozens of eggs are being shipped into Canada from the United States and other countries to help meet the demand.



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Now is the time to take advantage of this situation and make money out of it yourself. You can raise and sell 600 chickens this next year, and you will find a quick and sure market for every one of them. You can get the top notch price for all the hundreds of dozens of eggs that your poultry lay.

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Poultry raising is the best business for any farmer, any farmer's wife or farmer's child. The poultry crop is the one crop that never fails. It pays better for the time and money invested; the profit is surest; it isn't overcrowded and never will be.

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THIS culvert is made in sizes from

8 inches up to 7 ft. It is very

frost, freshets, and corrosion.

It saves road troubles and

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excavating. Does your

strong. It is proof against ice,





Put the small sizes in your open drains like this everywhere needed on your



Or use it under your gateway bridge, or as a well curbing, if desired.

Write us at our nearest branch for full details for our Free Sample of Pedlar Culvert and Book to-day to the nearest branch below.

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made in ordinary

metal, and do not

corrode. Toncan is a

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108 Alexander St. 434 Kingston St.

WRITE NEAREST BRANCH FOR CULVERT BOOK 250

You will find, from time to time, many excellent recipes for cakes in these columns. In the meantime, here is the very best layer-cake recipe that I know. It has appeared before in the Ingle Nook.

EDMONTON. 563 3rd St. W.

Beat together 1 cup butter and 2 cups sugar. Next beat in 3 well-beaten eggs, then 1 cup sweet milk, and, last of all. 3 cups (level) of flour with which have been sifted 2 rounded teaspoons baking powder or 1 teaspoon cream of tartar and 1 teaspoon soda. This may be baked in square tins in two layers.

Split each calle in two and put together with plain custard flavored with vanilla, with orange, or banana custard. ielly, or custard mixed with shredded cocoanut. Cover the top with icing of any kind, or with whipped cream sweetened and flavored.

Another variation may be secured by dividing the batter in two parts and mixing, with one part, melted chocolate or cocoa. The finished cake then consists of two layers, one white, the other brown, and may be covered with chocolate or cocoa icing.

If preferred, the batter may be baked in one thick layer, but mixed with chopped nuts to make a "nut" cake.

If you wish to have a very finegrained cake, be sure to cream the butter well before you add the sugar, and use cream of tartar and soda.

Never have the oven too hot when you put a cake into it, as, if so, the cake

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AND IS SENT ON 10 DAYS' FREE TRIAL

The new sound-regulating Acousticon is a marvellous improvement in hearing devices, for by moving a tiny lever the degree of sound may be instantly regulated. It will magnify sound upwards or downwards to exactly suit the needs of the affected ears, and the conditions under which you are listening.

It has been so unfailingly successful that we feel we can well afford to say to all those who are deaf, "Give us one opportunity to make you hear." If you are not convenient to our offices, take the New Sound-Regulating Acousticon and try in your home for 10 days. If it does not make you hear, return it, and you will owe us nothing.

The sound-regulating feature of the Acousticon is a recent achievement, but the proof that even without this great improvement the instrument was most efficient, lies in the fact that

about ten days' free trial of the Acousti-THE ACOUSTICON

is now being used by over 70,000 deaf people and over 500 churches, theatres and public buildings. So if you are hard of hearing, or above all, if you have made up your mind that nothing will make you hear—just fill in the coupon to-day, and at least prove to your own satisfaction, and without cost or penalty of any kind, whether this sound-regulating Acousticon will do it or not. We are sure that it will, or we would not make you have in the Farmer's Ad-Name GENERAL ACOUSTIC CO.

OF CANADA, LIMITED 468 Yonge St., Toronto, Ont.

Address..... City...

will harden over the top and refuse to rise as it should.

When pouring layer-cake batter into the pans, always even it well over the top,

making the batter slightly thicker at the sides than in the center.

A fruit cake bakes much better if the pan is set inside a second pan partly filled with boiling water.

There are many ways for making bread, some requiring "perpetual" yeast, others yeast cake. Here are two in which Royal yeast cake (I suppose any other would do) are called for.

(1) Soak the yeast cake i hour in 1 pint lukewarm water, then stir in enough flour to make a batter, cover, and set in a warm (not hot) place to rise. Do this rather early in the afternoon. When light, add 1 quart warm water, or scalded milk and water, if you want to have the bread more nutritious, and flour enough to make a batter. Beat all briskly for 15 minutes, and set again in a warm place over night. In the morning, add salt, and mix in flour to form a dough. Knead well on a board, and let rise again, then mould into loaves. Let rise, and bake in a moderate oven from # to 1 hour. In cold weather, have all your flour warm, and add the salt in the morning. In hot weather, add the salt to the sponge at night, as it retards fermentation somewhat, and will help to prevent the bread from souring. A gentle, even warmth, is necessary to make good bread. Chilling will make it heavy and soggy; too much heat will make it sour, because of over-fermentation.

Another: (Highly recommended).-Into 2 quarts sifted flour rub one large tablespoonful of lard, the same of fine sugar, and a scanty spoonful of salt. Blend half a cake of yeast with a little warm water, and add more warm water, enough to make the flour into a stiff batter. Cover, and let rise over night. In the morning, work in flour enough to mould up, using as little as possible, just enough to have it free from the hands, then knead until the dough is very smooth. Bread dough requires thorough kneading. Allow it to rise in a warm place until light, then divide into two loaves, handling as little and as lightly as possible, and put in baking pans. Let rise again until quite light, in a warm place, then, with a knife, score the topy of the loaves to prevent cracking, and bake one hour in a moderate oven. If more bread is required, double the quantities.

CROCHETED HUG-ME-TIGHT.

Dear Junia,-Iike so many others, I come for help. I would like to get the pattern for a crocheted "hug-me-tight," laced with ribbon under the arms. Thanking you in advance.

MRS. M. R.

P. Q. The very thing you want appeared in our issue of October 5th, 1911. If you have not that number of the paper, probably some of your neighbors have it. If not, kindly let me know. As a rule, we do not care to repeat so soon.

Midwinter Cookery.

Meat and suet dishes may be indulged in during cold weather more than at any other time of the year. Fat, you must understand, is a heat-producer.

Brisket is one of the cheaper cuts of beef, yet it may be made into a very appetizing dish, as follows: Into a saucepan put 4 slices of bacon, and on top lay 3 lbs. brisket. Put in along with the meat 2 carrots, 1 onion, herbs to season, then cover with cold water. Cover the stewpan closely, and let come slowly to the boil, and then simmer (not boil) for 4 hours. Before serving, take out a little of the liquid and thicken for gravy, adding caramel (burnt sugar) to brown. Add this to the rest. Garnish the meat with the carrots cut into slices, and serve at once. For a small family, reduce the quantities for this dish. Keep in mind that "a stew boiled is a stew spoiled." The secret of delicious stews is slow and steady cooking. Done in this way, the cheapest pieces of meat are quite as appetizing and nutritious as the dearer

Bacon, a fine heat-producer, should be used even more than it is during cold weather. Owing to its peculiar granular formation, it is quite digestible, and can be eaten by those who cannot touch pork in any other form. It may be broiled nicely as follows: Put the slices thicker at

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on a wire gridiron or toaster, and set in a very hot oven over a pan. and brown lightly and quickly. Serve, if you choose, with eggs, or veal cut-

Larded Fillet of Beef .- Have a fillet of beef larded at the butcher-shop. it on a rack in a pan, sprinkle with salt and pepper, dredge with flour, and put small slices of pork on the bottom of the pan. Bake in a hot oven 20 to 30 minutes, basting frequently.

Steamed Suet Pudding .- Chop 1 lb. suet very fine. Sift into a bowl 1 pint flour, 2 teaspoons baking powder, 1 teaspoon salt. Add a pint sugar, then stir in the chopped suet. Make a hole in the center. Put in yolks of 3 eggs, well beaten, gradually add } pint milk, and stir all into a smooth batter, then add the whites of the eggs beaten to a stiff froth. Stir through the batter over a cupful of drained apricots, stewed dried peaches, or raisins, to suit the taste, then turn all into a buttered mould. Cover tightly, and steam 21 Serve with cream and sugar, hours. with a little nutmeg grated in, or with pudding sauce.

Vanilla Sauce.-Half-cup butter, 1 cup sugar, 2 cups water, 1 large tablespoon flour mixed with the sugar or a little water. Cook, then flavor with vanilla.

Cream Sauce.-Half-cup butter, 1 cup powdered sugar, } cup cream, 1 teaspoon vanilla. Stir over hot water until creamed.

Uncle Tom Pudding.-To 1 cup flour add 1 small cup minced suet, a tablespoonful brown sugar, 2 cups dark molasses, 1 teaspoon ground ginger, 1 of cinnamon, 1 of allspice, 1 of soda. Beat up 2 eggs, mix with 1 cup milk, and add. Beat well, pour into a buttered mould, and steam 21 or 8 hours. Serve with sweet butter sauce, made by beating butter and sugar together.

An Easy Fruit Pudding.-Make oatmeal porridge and add to it a little black molasses, spice and fruit to taste. Boil again, thicken a little with flour if you choose, and serve with sauce. Oatmeal, also a heat-producer, should be served frequently during cold weather.

CELERY RELISH.

Having seen in a recent issue of "The Farmer's Advocate" a query re celery relish, will send a recipe which we have found very good.

One peck green tomatoes, 6 heads celery, 12 sour apples, 6 large onions. Chop all fine, then add the following: Four cups brown sugar, i cup mustard, 3 tablespoons cassia, 4 tablespoons salt, 1 tablespoon curry powder, 1 teaspoon pepper, 8 pints good vinegar. Boil all together for one hour.

Hoping this will be of help, I remain, Bruce Co., Ont. SEAMSTRESS.

News of the Week.

CANADIAN.

At the Carnegie Hero Fund meeting, held recently in the United States, the two Carnegie silver medals awarded for conspicuous heroism during a certain time, were passed over to Canada. One, with \$2,000 for educational purposes, was awarded to Doris Lewis, a girl of fourteen, who, under particularly difficult circumstances, at Cowansville, Que., on November 25th, 1911, saved Benjamin Draper, a boy of seven, from drowning. The other was given to the father of Frank Beamont, age 36, farmer and boatman, who lost his life on July 27, 1912, when trying to save a nephew from drowning in Muskoka Lake.

. A remarkable award of \$20,000 was last week awarded, in Calgary, to Miss Louise Collard, a school-teacher of Nanton. who sued Martin James Armstrong, of the Nanton Valley Ranch, for breach of promise.

Both Houses of Parliament reassembled in Ottawa on January 14th, after the four weeks' Christmas adjournment. * * * *

There is a scheme afoot for securing a large tract of land in the Maritime



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Buy our famous, superior home-grown and imported seeds. Ask for catalogue. Order our famous Special Collections.

Farm garden collection, 26 selected varieties, \$1 postpaid. Trial collection, 18 selected varieties, 50c. postpaid. Children's collection, 15 selected varieties, 25c. postpaid.

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Yellow Mangel "Our Ideal"

leads them all. It is the new mangel with the greatest future. An easy harvester and a keeper of highest feeding value. The 1912 report of the Ontario Agricultural & Experimental Union in the competing co-operative experiments, shows the "Ideal" as the leading variety, with 100 value and 32.40 tons per acre.

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Our Hurst Sprayers are the best.

Ask for Catalogue



Looking for Trouble

Every farmer who allows an outside privy to remain on his farm is Looking for Trouble-disease and illness-for himself and his entire family.

It Has Been Proved

That nine out of every ten cases of illness on the farms are directly traceable to the outside privy-that horrible sink of disease and filth.

Just think! You allow this horror to remain within a few steps of your home—and force your family—your wife and daughter to use it—in all weathers—winter and summer.

Why, man, it's outrageous! Especially when you consider how little it would cost you to instal a Good Health Sanitary Closet—right in your own home. Imagine how your family will appreciate its privacy and convenience. Make up your mind now to get rid of that outside privy. We Coupon will show you how.

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Gentlemen, - Please send me literature giv-THE GOOD HEALTH ing full particulars of the Good Health Sanitary Closet

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BUCKEYE TRACTION

Go into the contract ditching business for yourself. You couldn't find a more live, steady, profitable business. It will net you a clear profit of from \$15 to \$18 a day, and keep you busy nine to ten months in the year.

With the BUCKEYE you can easily cut 100 to 150 rods a day, according to the soil. And every ditch will be cut clean, uniform size and perfect to grade. The BUCKEYE pulverizes the dirt too, so back filling can be easily and quickly done.

You can get a BUCKEYE with either gasoline or steam power. Either machine is extremely simple to operage, and is economical both in first and final cost.

We can give you some good, hard facts about the BUCKEYE and the ditching business that will more than interest you.

Write for Catalogue T to-day.

THE BUCKEYE TRACTION DITCHER CO. Findlay, Ohio.

HACKNEY AUTO - PLOW

"The Great One-Man Outlet"
The only "One-Man" Machine on the masket that can be used successfully for plowing, ensuing, haweathng, threshing, as a tractor for heuling loads, road grader, and as a sentionary engine for all power purposes.

Send for illustrated catalogue and testimonials.

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A yeast cake may be made any size by Iding "fillers." White Swan Yeast cakes are made just the right size, and contain the strength to raise more sweet, wholesome bread than any other yeast made. Send for free sample. White Swan Spices & Cereal Co., Ltd., Toronto.



is of greatest value. Besides its many household uses, it is just the thing for cleaning and scouring milk pails, the cream separator, the churn and everything connected with the dairy. Makes everything clean, sweet, sanitary.

Many uses and full directions on large Sifter-Can, 10c.





GUNN'S SHUR-GAIN FEEDS FOR STOCK and POULTRY

GUNN'S

40 years' experience behind them. Write for Price List and booklet.

Gunn's Pork and Beef Packers WEST TORONTO

Provinces, to be used as training ground.

BRITISH AND FOREIGN.

The Sick Benefits clause of the British Insurance Act came into force on January 18th.

The five new battleships now being built by Great Britain will burn oil fuel alone. Should this example be followed by coal-burning manufactories, the prediction may come true that a new avenue for production, that of raising oil-bearing plants, will be afforded to farmers.

The claims against the White Star Line for Titanic losses amount to more than \$10,000,000. The highest was put in by Mrs. Irene Harris, who asks \$1,000,000 for the loss of her husband, a theater manager.

By the details of the new educational scheme for Great Britain, it is explained that it will henceforth be made possible for any man to climb to the top, through his mental capacity, rather than through cash. The curriculum is to be broadened to include manual training and technical instruction. Schools for mothers are also to be established.

M. Poincare has been chosen President of the French Republic, to succeed M. Fallieres.

After a hot debate, the Home Rule Bill was passed in the British House of Commons, on January 16th, by a majority of 110. It was then sent to the House of Lords.

The interior of Mexico has been cut off from the Capital by the rebels.

The telephone system of Great Britain is to be operated henceforth by the British Government. The sum of \$62,-576,320 was paid to the National Telephone Company for the transference.

TRADE TOPICS. .

"The wonderful era of prosperity that is now being enjoyed in Canada is exemplified by the report of the 'Salada' Tea Co., which states that, during the year just ended, there were 1,223,437 pounds more 'Salada' tea sold than in 1911. This increase would supply every household in the Dominion with one pound of tea.."

SPECIAL CRUISE AROUND THE WORLD

Empresses of "Russia" and "Asia" (New C. P. R. Pacific Steamships)

The Empress of Russia will leave Liverpool April 1st, calling at Gibraltar, Villefranche and Port Said, proceeding via Suez, Colombo, Singa-pore, Hong Kong, Shanghai, Nagasaki, Kobe and Yokohama, arriving Vancouver June 7th, 1013

and Yokohama, arriving Value 1913.

Vessel remains 16 days at Hong Kong.

Empress of Asia will sail from Liverpool June 18th, particulars of trip will be announced later.

Most direct connection for April 1st sailing is via "Empress of Britain" from St. John, N. B., March 21st.

Rate for Entire Cruise, \$639.10 Exclusive of maintenance between arrival time in England and departure of "Empress of Russia," and stop over at Hong Kong. Particulars from Canadian Pacific agents, or write M. G. MURPHY, D.P.A., C.P.R., Toronto.

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It's easy to incure a bumper crop

Costs little to do so, because—You can make that and large profits equally certain with a

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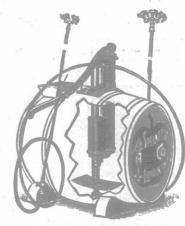
A machine that will return the money invested in it every year and then some.

A HAND POWER SPRAMOTOR sprays an acre of potatoes effectively in 30 minutes annihilates bugs, germs and pests and makes the blight impossible-Making your work vastly more profitable than ever

The Hand Spramotor has two lines of 10 foot hose—cuplings attached, patent valves, two bamboo extension rods with internal brass tube, brass cupped ends, patent drip guard and two nozzle clusters.

A durable machine for all purposes --destroying weeds, spraying orchards and can be used effectively for white washing or painting the buildings about the farm.

NOTE:-There's a Spramotor built for your exact



requirements.Prices range from \$6.00 to \$350.00. You owe it to yourself to find out all there is to know about it. We forward you the facts with our treatise on "Crop Diseases" without placing you under any obligation to buy.

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Cake Meal

-then the cows will give more and richer milk-the beef cattle will fatten faster and make juicier beef of finer flavor.

"Maple Leaf" Oil Cake Meal will put quality into both beef and dairy products. And for quality the old world clamors more and more.

For indoor feeding "Maple Leaf" Oil Cake Meal fits every condition. It can be mixed with any other kind of feed on hand, and is very economical.

And its fertilizing or manurial value must also be remembered. It enriches everything with which it comes in contact.

But when you go to buy it, be sure to ask for "Maple Leaf" Oil Cake Meal, the kind produced by The Canada Linseed Oil Mills, Ltd., at their big modern mills in Montreal and

Our book, "Facts to Feeders," will be mailed free on request. Get "Maple Leaf" Oil Cake Meal from your dealer, or direct from our nearest mill.

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CHOICE pure-bred R. C. Rhode Island Red cockerels, \$2 each. Eggs in season. Henry Dodge, Cairngorm, Ont.

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CHOICE White Wyandotte cockerels \$1.50 each.
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FOR SALE—Brown Leghtrus, indian Gaines, Buff Leghorns, Dark Brahmas, also come very fine large White Wyandottes. Sunnyside roultry Yards, Highgate, Ont.

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A LL kinds of Farms Fruit Farms a specialty. W. B. Calder, Grimsby.

ORRAM WANTED — We guarantee highest prices, correct weights, accurate tests, prompt puturns. Write for free cans and try a few shipments. Toronto Creamery Co. Limited, Toronto.

COPIES of the photograph of the Western Ontario Dairymens' Convention will be mailed on approval from Round's Studio, Woodstock. The photograph which is 10 x 42 inches is without doubt the best the Association has ever had. ARM Wanted—Wanted to rent, 150 to 200

Farmer, care of Review, Paris, Ont. FARM Minager wanted, Ontario, seven nundred acres, strictly temperate. Experienced, up-to-date methods. Dairy cattle, horses and general farm. Capable of handling men with large implements, getting results least cost, give references, experience, salary expected. Also two farmers with large families, own houses provided. Apply P. O. Box 182, St Catharines, Ont.

FARM for Sale—100 acres in the Township of Ancaster, County of Wentworth, 10 miles west of Hamilton, on stone road, ½ mile of school, store, church, blacksmith shop, two stations. Rural mail, telephone and everything else up-to-date. Stanley Templar, Copetown, Ont.

FOR Sale—Farm store and stock, \$4,000. Telephone and post office in connection. Station, two sidings centre farm. Louis Garnett, Isbester,

WANTED—Cash paid for MilitaryLand Grants in Northern Ontario. Please state price and location. Box 88, Brantford.

WANTED—Farmer and wife to assist in management of farm. He must be thoroughly experienced in all farm work and have knowledge of good stock. She must be good housekeeper and understand care of milk. Both must be willing to do the practical work on the place. Engagement for April 1st. Apply to Frank Cockshutt, Brantford, Ont.

ANTED to Rent—About 100 acres, good land, good buildings; in County of Middlesex or Perth, with option of buying. Address: Farmer, Farmer's Advocate, London.

WANTED-CUSTOM TANNING - Send me your cattle and horse hides, and have them tanned and made into robes and coats. Deerskins tanned for buckskin, also made into mitts and gloves. We tan all kinds of hides, skins and furs. Send them to me and have them dressed right. B. F. BELL, DELHI, ONT.

FOR ONTARIO FARMS Arriving February, March, April. Apply: BOYS' FARMER LEAGUE, Winona, Ont.



Potash for Potatoes

The Potato is the most important vegetable that the farmer grows, and the demand for it is always increasing. It is also one of the crops that responds most generously to the application of commercial fertilizers. In the Potato-growing districts of New Brunswick, the farmers apply fertilizers to the extent of, approximately, \$30 per acre. This expenditure covers a very heavy application, but the growers are satisfied, as they obtain very large yields.

It has been proved by analysis that a crop of 300 bushels removes from the soil, approximately, 60 lbs. nitrogen, 80 lbs. phosphoric acid, and 105 lbs. POT-ASH. These essential plant foods must be returned to the soil in some form if fertility is to be maintained. This can be done by the application of artificial fertilizers, either as supplements to or substitutes for barnyard manure.

From the figures given above, it can be seen that POTASH, must be the dominant ingredient in a fertilizer for potatoes, and no mixture should be bought to fertilize this crop unless it contains 8 per cent to 10 per cent. POTASH. Should the farmer mix his materials on the farm, the following quantities would suffice: 150 lbs. nitrate of soda (a crop of clover plowed under will supply the necessary nitrogen), 800 lbs. acid phosphate, and 210 lbs. sulphate of potash. POTASH in the form of sulphate of potash should be used as it gives better results than in other forms.

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MONTREAL

Rebecca of Sunnybrook Farm.

By Kate Douglas Wiggins.

Serial rights secured from Houghton Mifflin Publishing Company, New York.

CHAPTER XIV.

Mr. Aladdin.

A single hour's experience of the vicissitudes incident to a business career clouded the children's spirits just the least bit. They did not accompany each other to the doors of their chosen victims, feeling sure that together they could not approach the subject seriously; but they parted at the gate of each house, the one holding the horse while the other took the soap samples and interviewed any one who seemed of a coming-on disposition. Emma Jane had disposed of three single cakes, Rebecca of three small boxes; for a difference in their ability to persuade the public was clearly defined at the start, though neither of them ascribed either success or defeat to anything but the imperious force of circumstances. Housewives looked at Emma Jane and desired no soap; listened to her description of its merits, and still desired none. Other stars in their courses governed Rebecca's doings. The people whom she interviewed either remembered their present need of soap, or reminded themselves that they would need it in the future; the notable point in the case being that lucky Rebecca accomplished, with almost no effort, results that poor little Emma Jane failed to attain by hard and conscientious labor.

"It's your turn, Rebecca, and I'm glad, too," said Emma Jane, drawing up to a gateway and indicating a house that was set a considerable distance from the road. "I haven't got over trembling from the last place yet." (A lady had put her head out of the upstairs window and called, "Go away, little girl; whatever you have in your box we don't want any.") "I don't know who lives here, and the blinds are all shut in front. If there's nobody at home you mustn't count it, but take the next house as yours.'

Rebecca walked up the lane and went to the side door. There was a porch there, and seated in a rocking chair, husking corn, was a good-looking young man, or was he middle-aged? Rebecca could not make up her mind. At all events he had an air of the city about him,—well-shaven face, well-trimmed mustache, well-fitting clothes. Rebecca was a trifle shy at this unexpected encounter, but there was nothing to be done but evol sence, so she asked, "Is the lady of the house at home?"

"I am the lady of the house at present," said the stranger, with a whimsical smile. 'What can I do for you?"

"Have you ever heard of the-would you like, or I mean—do you need any soap?" queried Rebecca.
"Do I look as if I did?" he responded

unexpectedly. Rebecca dimpled. "I didn't mean that;

I have some soap to sell; I mean I would like to introduce to you a very remarkable soap, the best now on the market. It is called the"-"Oh! I must know that soap," said

the gentleman genially. "Made out of pure vegetable fats, isn't it?"
"The very purest," corroborated Re-

becca.

"No acid in it?"

"Not a trace.

"And yet a child could do the Monday washing with it and use no force."
"A babe," corrected Rebecca.

"Oh! a babe, eh? That child grows younger every year, instead of older-wise child!"

This was great good fortune, to find a customer who knew all the virtues of the article in advance. Rebecca dimpled more and more, and at her new friend's invitation sat down on a stool at his side near the edge of the porch. The beauties of the ornamental box which held the Rose-Red were disclosed, and the prices of both that and the Snow-White were unfolded. Presently she forgot all about her silent partner at the gate and was talking as if she

had known this grand personage all her

"I'm keeping house to-day, but I don't live here," explained the delightful gentle-man. "I'm just on a visit to my aunt, who has gone to Portland. I used to be here as a boy, and I am very fond of the

"I don't think anything takes the place of the farm where one lived when one was a child," observed Rebecca, nearly bursting with pride at having at last successfully used the indefinite pronoun in general conversation.

The man darted a look at her and put down his ear of corn. "So you consider your childhood a thing of the past, do you. young lady?'

"I can still remember it," answered Rebecca gravely, "though it seems a long time ago. "I can remember mine well enough, and particularly unpleasant one it was, said

the stranger.
"So was mine," sighed Rebecca.

"What was your worst trouble?"
"Lack of food and clothes principally." "Oh!" exclaimed Rebecca sympatheti-"mine was no shoes and too many babies and not enough books. But you're all right and happy now, aren't you?" she asked doubtfully, for though he looked handsome, well-fed, and prosperous, any child could see that his eyes were tired and his mouth was sad when he

was not speaking.
"I'm doing pretty well, thank you," said the man, with a delightful smile.
"Now tell me, how much soap ought I to buy to-day?

How much has your aunt on hand now?" suggested the very modest and in-experienced agent; "and how much would

she need?"

"Oh, I don't know about that; soap keeps, doesn't it?"

"I'm not certain," said Rebecca conscientiously, "but I'll look in the circular—it's sure to tell;" and she drew the

document from her pocket.
"What are you going to do with the magnificent profits you get from this busi-

"We are not selling for our own benefit," said Rebecca confidentially. "My friend who is holding the horse at the gate is the daughter of a very rich blacksmith, and doesn't need any money. I am poor, but I live with my aunts in a brick house, and of course they wouldn't like me to be a peddler. We are trying to get a premium for some friends of our " for some friends of ours.

Rebecca had never thought of ever alluding to the circumstances with her previous customers, but unexpectedly she found herself describing Mr. Simpson, Mrs. Simpson, and the Simpson family; their poverty, their joyless life, and their abject need of a banquet lamp to brighten

their existence.
"You needn't argue that point,"laughed the man, as he stood up to get a glimpse of the "rich blacksmith's daughter" at the gate. "I can see that they ought to have it if they want it, and especially if you want them to have it. I've known what it was myself to do without a banquet lamp. Now give me the circular, and let's do some figuring. How much do the Simpsons lack at this moment?

"If they sell two hundred more cakes this month and next, they can have the lamp by Christmas," Rebecca answered. "and they can get a shade by summer time; but I'm afraid I can't help very much after to-day, because my aunt Miranda may not like to have me."
"I see. Well, that's all right. I'll take

three hundred cakes, and that will give them shade and all."

Rebecca had been seated on a stool very near to the edge of the porch, and at this remark she made a sudden movement, tipped over, and disappeared into a clump of lilac bushes. It was a very short distance, fortunately, and the amused capitalist picked her up, set her on her feet, and brushed her off. "You should never seem surprised when you have taken a large order," said he; "you ought to have replied 'Can't you make it three hundred and fifty?' instead of capsizing in that unbusinesslike way."

in that unbusinesslike way. Oh, I could never say anything like that!" exclaimed Rebecca, who was blushing crimson at her awkward fall. "But it doesn't seem right for you to buy so

much. Are you sure you can afford it?"
"If I can't, I'll save on something returned the jocose philanthropist. "What if your aunt shouldn't like the kind of soap?" queried Rebecca nervously.

'My aunt always likes what I like, he returned.

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"Mine doesn't!" exclaimed Rebecca. "Then there's something wrong with your aunt!"

"Or with me," laughed Rebecca. "What is you name, young lady?"

"Rebecca Rowena Randall, sir." "What?" with an amused smile."Both?

Your mother was generous. "She couldn't bear to give up either of

the names she says.' "Do you want to hear my name?"

"I think I know already," answered Rebecca, with a bright glance. "I'm sure you must be Mr. Aladdin in the Arabian Nights. Oh, please, can I run down and tell Emma Jane? She must be so tired waiting, and she will be so glad!"

At the man's nod of assent Rebecca sped down the lane, crying irrepressibly as she neared the wagon, "Oh, Emma Jane! we are sold out!"

Mr. Aladdin followed smilingly to corrobate this astonishing, unbelievable statement; lifted all their boxes from the back of the wagon, and taking the circular, promised to write to the Excelsior Company that night concerning the premium.

"If you could contrive to keep a secret,
—you two little girls,—it would be r ther
a nice surprise to have the lamp arrive at
the Simpsons' on Thanksgiving Day,
wouldn't it?" he asked, as he tucked
the old lap robe cosily over their feet.

They gladly assented, and broke into a chorus of excited thanks, during which tears of joy stood in Rebecca's eyes.
"Oh, don't mention it!" laughed Mr.
Aladdin, lifting his hat. "I was a sort
o commercial traveler myself once,—

years ago,—and I like to see the thing well done. Good-by, Miss Rebecca Rowena! Just let me know whenever you have anything to sell, for I'm certain before-hand I shall want it." 'Good-by, Mr. Aladdin! I surely will!"

cried Rebecca, tossing back her dark braids delightedly and waving her hand. "Oh, Rebecca!" said Emma Jane in an awe-struck whisper. "He raised his hat to us, and we not thirteen! It'll be five

years before we're ladies."
"Never mind," answered Rebecca; "we are the beginnings of ladies, even now." "He tucked the lap robe round us, too,"

continued Emma Jane, in an ecstasy of reminiscence. "Oh! isn't he perfectly elegant? And wasn't it lovely of him to buy us out? And just think of having both the lamp and the shade for one day's work." work! Aren't you glad you wore your pink gingham now, even if mother did make you put on flannel underneath? You do look so pretty in pink and red, Rebecca, and so homely in drab and brown!"

'I know it," sighed Rebecca. "I wish I was like you—pretty in all colors!" And Rebecca looked longingly at Emma Jane's fat, rosy cheeks; at her blue eyes, which said nothing; at her neat nose, which had no character; at her red lips, from between which no word worth listening to had ever issued.

"Never mind!" said Emma Jane comfortingly. "Everybody says you're awful bright and smart, and mother thinks you'll be better looking all the time as you grow older. You wouldn't believe it, but was a dreadful homely baby, and homely right along till just a year ago, when my red hair began to grow dark. What was the nice man's name?"

"I never thought to ask!" ejaculated Rebecca. "Aunt Miranda would say that was just like me, and it is. But I called him Mr. Aladdin because he gave us a lamp. You know the story of Aladdin and the wonderful lamp?

"Oh, Rebecca! how could you call him a nickname the very first time you ever

saw him?"
"Aladdin isn't a nickname exactly anyway, he laughed and seemed to like it. By dint of superhuman effort, and putting such a seal upon their lips as never mortals put before, the two girls succeeded in keeping their wonderful news to them-selves; although it was obvious to all beholders that they were in an extraordinary and abnormal state of mind.

On Thanksgiving the lamp arrived in a large packing box, and was taken out and set up by See-Saw Simpson, who suddenly began to admire and respect the business ability of his sisters. Rebecca had heard the news of its arrival, but waited until nearly dark before asking permission to go to the Simpsons', so that she might see the gorgeous trophy lighted and sending a blaze of crimson glory through its red crepe paper shade.

(To be continued).

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Miscellaneous.

DRIVEN WELL PROBLEM.

Water is found at a depth of four feet, in a sandy-loam soil, and rises to within one foot of the surface. Well was dug in June, 1912, and water has not failed since-good, clear, sweet water, not very hard. Composition of soil is loam (dark brown), for fifteen inches, then yellow sand for twelve inches, small, hard gravel for nine inches, and remainder, to present depth, white sand, almost like quicksand, which silts up about three inches in three months.

1. Would it be profitable to drive a well to a greater depth, say, 15 or 20 feet, in order to get below the frost line; and do you think there would be another water-bearing strata of sand probably at 20-feet depth, or would the top strata of water-bearing sand prove to be the only one in such soil? the white sand at 31-foot depth be likely to continue much lower than present depth, with water still present, or would it drop off, and the second strata of water-sand be more prolific in water?

2. What is the best method of driving a well-pipe with a drive-point; and is there any better method of ascertaining depth of the water-bearing sand, by ordinary, inexpensive means? The rock shows up about 80 rods to the south of well, and the land has a very gentle slope northwards, about 1 foot in 200 FARMER'S BOY.

Ans.-1. It is impossible to tell from the data given, to what depth the whitesand stratum would extend, or whether another porous layer would be found lower down. One thing is certain, namely, that this stratum of sand will be water-bearing down as far as it goes, and the way to tell this depth would be to drive a well-point. If this porous sand goes a considerable distance down, then there would be no objection whatever to having your well-point the full depth of the layer. Indeed, there would be an advantage, as you would have a greater supply of water, and you would be below the frost line. The correct depth in each case can be settled only by a pumping test to determine the quantity of water the well gives before it is pumped dry, and the time it takes

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to fill again. If the quantity of water is not sufficient, the pipe may be driven down a foot or so and another test made. Where the porous stratum is shallow, the point is sometimes driven through it into a non-porous stratum, which, of course, shuts off the supply of water. If this should happen, the pipe may be drawn up again, as follows: A collar is made of two stout timbers. notched to fit the pipe, and bolted together around the pipe below the drivecap; the lifting is done by means of two jack-screws, one under each end of the collar. If the pipe sticks, a twist or two with a pipe-wrench will generally loosen, it. If, when the bottom of the white-sand stratum is reached, you are not satisfied with the depth, you might drive further in the hope of striking another porous layer, failing which you might draw the point up to the whitesand stratum.

2. To drive a well, the perforated drive-point is screwed to one end of a length of pipe and a drive-cap to the other. The pipe and drive-point are then driven into the ground with sledgehammers, or with a drop weight similar to that of a pile-driver. The drive-cap is then removed, another length of pipe screwed to the first pipe, the drive-cap screwed to the new length, the pipe driven down, and so on, until water is found. A plummet is let down inside the pipe from time to time; if it comes up wet, water has been struck. The point must then be driven down somewhat deeper to insure a good flow of water from the porous stratum. The The drive-cap is heavier nary pipe-cap, and the thread is cut to the top of the cap, so that when it is screwed home, the edge of the pipe touches the top of the cap, and thus the strain of the driving falls on the edge of the pipe, and not on the thread.

CEMENT TANK FOR MAPLE SAP.

Will you kindly give me any information you can about a cement cistern to store maple sap.

1. Would it spoil the flavor of syrup. or color it?

2. Would it be necessary to fill it with water for two or three weeks before using, and also to keep water in it during su nmer?

Ans.-1. We do not think it would do

2. If properly made, and frequently sprinkled with water for, say, a week, it should not be necessary to fill it with water, though that might insure harder and more impervious walls. It would not be necessary to keep it filled with

water over summer. The supports of such a tank should be down below frost line, and its construction in frosty weather should not be undertaken. Directions that have been given in "The Farmer's Advocate" frequently for the construction of cement water tanks, will be applicable in this case. The experience of readers who have used cement sap tanks, or who have built cement arches for boiling sap, would be useful at this time.

THE CANADIAN BANK OF COMMERCE ANNUAL MEETING

At the annual meeting of The Cana- building programme could be curtailed, dian Bank of Commerce held in Toronto on 14th instant, the statement presented showed profits for the year of \$2,811,-806.42, the best in the history of the Bank, which has grown rapidly during the past few years. During the year the paid-up capital of the Bank has been increased to \$15,000,000 and \$2,742,180 has been added to Rest, bringing that account up to \$12,500,000. The total assets of the Bank are now \$246,571,000 as compared with \$113,683,000 five years ago. The Bank has this year adopted the plan of issuing a "Review of Business Conditions in 1912," as a supplement to its Annual Report. This review covers the various Provinces of Newfoundland, the United States, Mexico, and Great Britain, in all of which countries the Bank now does business. It consists of a highlyinteresting series of reports, and is written by trained bankers who are thoroughly familiar with conditions in those acctions of the country about which they write. A copy will be sent to any address on application to the Head Office

of the Bank. After the reading of the Report, the General Manager, Mr. Alexander Laird, addressed the shareholders, saying:

We have closed another year with a record of uninterrupted prosperity, and we take pleasure in submittiog a report which will compare favorably with any previous statement in the Bank's history. In reviewing the business of the early part of the year we have to note a steady development. Great industrial activity, accompanied by large orders for manufactured goods of all kinds, gave an impetus to business which at once arrested our attention and produced a feeling of concern lest we should have difficulty in meeting the requirements of our customers. There was apparently a sound and healthy basis for this activity, and the money market was for a time comparatively easy, but we had to look forward to the harvesting of a large crop, and were naturally desirous of doing our full share in moving it. necessity for a close supervision of credits was never so obvious, and this period, usually one of dull and inactive business, proved to be a time for the exercise of great caution.

We had expected the gradual return of better conditions in the great financial centers which, by permitting the marketing of a large amount of first-class securities, would enlarge the supply of available capital, but untoward events in Continental Europe and the uncertainty surrounding an exciting Presidential campaign in the United States made this impossible. The latter half of the year was therefore a time of of the Eastern Townships Bank amalgagreat stringency, and consequent high rates for money, and it became increasingly difficult to satisfy legitimate demands, notwithstanding the inherent soundness of business generally.

With the amalgamation of the Eastern Townships Bank, our capital was increased to \$15,000,000. The average capital employed during the year was \$14,210,437, and the net earnings on this amount were \$2,811,806.42, an increase ol \$506,397 over last year, being at the rate of 19.73 per cent. This result was attained after making the usual provision for all bad and doubtful debts, and a thorough revelation of the entire assets of the Bank.

We are pleased to report that an examination of the accounts of the Eastern Townships Bank leaves us no reason to doubt the value of our purchase, and we record our appreciation of the zeal and hearty co-operation of our associates in the difficult task incident to the adjustment of so important an acquisition.

We disbursed in dividends \$1,368,-622.43, being at the rate of 10 per cent. per annum, and an extra bonus dividend of 1 per cent. for the year. The policy of paying bonus dividends until such time as we are confident of being able to maintain a higher rate, would seem to be a wise precaution, in view of the extraordinary development of our business, and the desirability of making ample provision for any con-

tingency likely to rise. We had expressed the hope that our

but the acquisition of the large territory covered by our Eastern branches, and the continued growth in the West, necessitated the opening of a considerable number of branches requiring the building and remodelling of offices on an extensive scale. We have also a serious problem to face in the changes absolutely essential for the proper accommodation of Head Office and Toronto branch, our present premises having been for several years quite inadequate. Bank Premises account has been increased to \$4,423,993.07, which includes premises acquired from the Eastern Townships Bank, and we have written off \$500,000, keeping the account at approximately 50 per cent. of the value of our properties. The increase of the staff, now number-

ing 8,000, required the appropriation of \$75,000 for the Pension Fund. We have added \$2,742,180 to Rest Account, and carry forward a balance of \$771,578.88 in Profit and Loss. The Bank's Circulation Account showed important fluctuations during the year, the minimum reached in January being \$10,403,322. and the maximum in November, \$16,-660,709. We had occasion to take advantage of the emergency provisions of the Bank Act amendment of 1908 early in October, and we closed our statement with a circulation of \$1,422,864 in excess of the amount of our paid - up capital.

If the Bank Act introduced at this session of Parliament should be passed in its present form, and a "Central Gold Reserve' established, there will be no apprehension of a scarcity of currency at a time when the emergency provisions are not operative; for with the deposit of gold or Dominion notes in the custody of trustees, the bank will have the privilege of issuing their own notes to the full amount thus deposited. This will undoubtedly be a very important step towards ensuring that the business of the country should not be embarrassed through lack of currency. It is evident, however, that there will be no profit to the banks in availing themselves of the suggested privilege, and as we have reached the time when the need of currency is beyond the present limits of the bank's power to supply, it is desirable that in addition to the adventitious aids so wisely provided in the new Bank Act, the banks should anticipate an increasing demand for bank-note currency by the issue of additional

During the year, our deposits increased \$51,651,727. There was a considerable accession of special amounts which will be withdrawn in due course, and we received \$19,111,119 as a result mation. The ordinary deposits show a very handsome increase. Current loans and discounts increased \$52,758,947, and call and short loans \$2,757,730, compared with last report. Investments in Government bonds, municipal, and other securities, were increased by \$2,821,024, and cash resources by \$1,625,271.

You will notice from the report of the Board of Directors the large increase in the number of our branches. We fully realize our responsibility in undertaking to control so many units in a great bank, and the importance of arranging for a complete organization of competent and loyal associates, with geographical divisions which thoroughly cover the field of our operations. endeavor as far as possible to clothe our Superintendents and Managers with authority for a prompt discharge of the duties of management, and believe we have succeeded in perfecting a system which meets every reasonable require-The distribution of branches at ment. the close of the year was as follows:

Alberta	49
British Columbia	42
Manitoba	23
New Brunswick	2
Nova Scotia	13
Ontario	79
Prince Edward Island	5
Quebec	91
Saskatchewan	53
Yukon	2

Total in Canada	359	
Newfoundland	1	
London, Eng	1	
United States	4	
Mexico	1	
	-	
Total number of Branches	366	

The number of the Bank's shareholders has increased during the year from 4,142 to 5,656, the increase being principally due to the taking over of the Eastern Townships Bank. The stock of the Bank is now quite widely distributed, not only in Canada, but abroad, as will be seen from the following figures compiled as at the close of our year:

. 1	40. Of	
	Share-	Amount
- b	olders.	held.
Ontario	1,388	\$4.087.500
Quebec	1,127	3,213,650
Maritime Provinces	702	1,544,450
Western Provinces	118	242,950
Great Britain	1,569	3,204,400
United States	669	2,549,950
Other countries	83	157.100
	-	

5,636 \$15,000,000

We have referred to the provisions of the new Bank Act for increased note circulation, and would like to advert to the proposal that is now being considered, of creating a system of independent audit to supplement what has always been regarded as complete and satisfactory in every well-organized bank. There can be no question as to the importance of a strict supervision of all matters pertaining to our banks, and we should welcome any plan which makes for more efficient management, and a proper recognition of the great responsibilities we are called upon to assume. We are disposed to believe that with the cooperation of the Canadian Bankers' Association, working through the various Bank Clearing Houses, effective service could be rendered in the correction of abuses and the perfecting of methods for the encouragement of sound banking. We have possibly not taken advantage of our opportunities in this respect.

The Bank Act, will probably sanction. under proper liens and assignments, the loaning of money to farmers and ranchers on the security of grain and cattle and other live stock in their possession. This will undoubtedly be a great advantage in many instances, and will at least legalize a practice already quite common, and probably tend to prevent hasty marketing of produce. As a matter of fact, large advances are made to farmers on the security of notes, but actually upon what they possess in the way of products of agriculture, and their reputation for honesty and ability, always an essential consideration when lending money. We have no hesitation in stating that our farmer customers are, alwithout exception, satisfactory borrowers. Our aggregate advances to farmers run into large figures, estimated at \$15,000,000 for the Western Prov-

Despite the money stringency during the closing months of 1912, and the fear that we may feel the pinch for some time to come, there are offsetting influences at work. The wonderful revival of trade in every branch, the bountiful harvests throughout the land, and the consequent enormous increases in traffic on the railways, afford excellent grounds for the assumption that the unusual prosperity we are enjoying is on a sound There is therefore some warrant for the belief that with reasonable care and judgment in measuring our commitments there will be a continuance of prosperous conditions for the coming year. We must, of course, reckon with the adverse circumstances prevailing abroad, for in conducting a world-wide business we are sensitive to these influences. We are hopeful that with the settlement of present difficulties in Europe, and the return of the mal channels, any apprehension for the dispelled. We Europe, and the return of trade to norimmediate future will be dispelled. are likely to experience on the part of investors a very decided reluctance to pay fancy prices when we come to dispose of the securities now awaiting a favorable market, and we should be prepared for a revaluation which will probably mean a higher yield for the purchaser.

The adoption of the Report was then

moved by the President of the Bank, Sir Edmund Walker, C.V.O., who spoke

PRESIDENT'S ADDRESS.

The area of Canada in which the Bank is directly interested has become so large that we have decided to present information collected regarding its industrial position in a new form. We shall hereafter include in the statement made to our shareholders, reports from those senior officers of the Bank who have charge under the General Manager of the various geographical divisions of the Bank, and who are better qualified than we are to set forth the facts regarding such districts.

The year has been one marked, even in comparison with recent years of large expansion, by a continued increase in immigration, in building operations of all kinds, especially in connection with railroads, in foreign and domestic trade, in bank deposits, indeed, in almost everything connected with the prosperity of a country. Our object in stating what is so well known is that we may consider the causes of our rapid growth, and whether in the methods of our expansion there is anything which needs to be checked. Our financial requirements are mainly determined by the volume of immigration. It is because of this that we must build so largely, and this also is the main cause of the excess of our imports over our exports. The immigration for the calendar year, December, being estimated, was 894,784, an increase over the record year of 1911 of 18 per cent. The immigrants came to us from forty - one countries, and were divided as follows: British, 144,880; American, 140,456; from other countries, 109,498. In order to transport them to their inland destination, 800 passenger trains of ten cars each, averaging 50 persons to each car, would be required. In the last two years we have added nearly 10 new people to each 100 people already in Canada, taken as a whole, but as over half of these immigrants have gone to the Western Provinces, the proportion of newcomers to these Provinces in the same period has been about 20 to each 100. The population of Saskatchewan has increased five-fold in ten years. Clearly this is proportionately the largest immigration problem ever handled by any company. In order to house, settle, and arrange transportation for these people, we must borrow very largely, and as long as such streams of newcomers continue, we are likely to be borrowers on a large scale, at least for many decades to In the excess of imports over exports, and in the volume of our securities sold abroad in order to settle that difference, one can clearly see the strain put upon Canada by this enormous accession of new people. The total of our foreign trade for the fiscal year end-March, 1912, Was \$874,588,000. Our imports were \$559,220,000, and our exports \$315,317,000, the balance against us being \$243,903,000, and the figures for the half-year ending September, 1912, show imports on an even larger scale The imports of iron and steel in various forms, from raw material to highly-complicated manufactures,, amount in value to \$95,000,000. Almost all these articles are already being made in Canada, but not in sufficient quantities, or not of high enough quality, to satisfy our It is to the last degree requirements. desirable that such articles should be made at home, and to the extent of \$50,000,000 or \$60,000,000 they clearly should be. With the exception of motor cars and parts to the extent of \$7,887,000, and a few other items, the whole of this amount may be safely attributed to the erection of new structures or the opening up of new farm It is this large difference belands. tween our exports and imports which causes us to send so many securities to the London market; and if it were true that we are offering too many securities, it would mean that we are importing too many goods or exporting too little, or both. Doubtless, some Canadian securities are offered which should not have been created, and doubtless our imports are unwisely increased to some extent by the extravagance of an unusually prosperous people, but the main cause each year is the same. We need more than ever new mileage of railways, vast quantities of new rolling stock,

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warehouse and port facilities, municipal expenditures in hundreds of new towns, and an enlarged scale of improvements in all the older municipalities, the building of ordinary roads, bridges, etc., in many new areas of settlement, the creation of plants for new industries, and the general increase of existing plants throughout all Canada, the erection of private dwellings in greater numbers, and of more permanent construction than in the past, and many other forms of betterment which need not be detailed. But while our needs are mainly measured by our immigration, we are apt to forget that it is the investor in our securities who has the Power to determine finally the pace of our expansion. For every dollar we wish to fix in permanent improvements, somebohy should have saved a dollar, and at this extravagant moment the borrowers throughout the world exceed those whose savings take the form of loanable capital. It is for us, therefore, to consider not so much our needs as the opinion of the investor regarding our securities, and the condition of the world's money market. If we do this, we must conclude to restrict our building operations as much as possible for the moment, and we must expect to pay a higher rate of interest for our requirements. Men with business experience before entering upon building operations, large or small, assure themselves that the needed money is available. It is only our municipalities and reckless promoters who incur large obligations before they are sure of the necessary investor in the securities they propose to offer. Many of our towns and cities who have refused to consult the banks, find themselves embarrassed as a result, and improvements which may be wise and much needed, must be postponed for the moment. The existing securities will doubtless be absorbed in the near future, but at lower prices than heretofore, in order to meet the investors' expectations of a higher return. Our municipalities, however, should seriously consider whether, during periods of such rapid expansion, the tax rate should not be largely increased. In the days of Western expansion in the United States, 25 and 30 mills on a fairly high valuation of property, were not uncommon rates. Again, should we not pay for local improvements in a far shorter time than we do? The Western cities of the United States make their local improvements by the issue of short-term securities, the average life of which is usually not more than five years. Such securities often carry six per cent. interest, and do not appeal to the same class of investors as do long - term municipal debentures. We can easily see the bad effect on the credit of our municipalities of adding the heavy cost of local improvements, spread over long terms, to the ordinary general debt. Such a system as that followed in the United States would probably not find favor with the subdivision promoter, because it would be a powerful check on all speculative realestate schemes. At least a year ago it became generally known that there were many Canadian securities in existence which had not been absorbed by the investor, and that real-estate speculation was proceeding at too rapid a pace. Undoubtedly the knowledge of these facts has exercised some restraint upon our people. Transactions in inside city properties have probably been larger than ever, but the sub-division promoter has not prospered. Direct investments of British capital in agricultural lands to be re-sold have been made in both the East and West on a large scale.

In common with the rest of the world we are living in a time of high prices, and the incidence of these prices on those who have fixed incomes or earnings is so heavy as to constitute the greatest economic difficulty we have to face. I shall not attempt to deal fully with a subject which is being studied by Government Commissioners in many leading countries, and which will, let us hope, be referred to an international commission. There are some forces which affect the general trend of prices, others which may cause any particular commodity to go above or below the line of the general trend, and again of modern life which increase the food others which are local, and produce such apparent anomalies as higher prices for foodstuffs in cities nearer sources of cheap production as compared with more land which may help to correct this disremote centers of consumption. Without, proportion, but while the quantity of

larged and cheapened supply of gold, the enormous increase of credit partly made possible thereby, and the effect of many other forces causing a general upward trend of prices, we may profitably consider some local causes which put the people of Canada at an unnecessary disadvantage. One of the most powerful and inexcusable local causes for the high price of food is the condition of our country roads. It must be clear that if a farmer has to travel ten or twenty miles to a city to sell his produce every hour of delay to himself and his horses and wagon, every bushel or pound less he is able to carry, every day lost in the length of the life of his horses and wagon, cause just so much increase in the cost of the article he has to sell. To the extent that this needless and cruel loss might, if avoided, partly add to the farmers' profits, and partly lessen the cost to the consumer, the state of our roads is little short of a crime. If the bad roads around a city cause the price of food to be much higher than it need be, one of the results is to enable producers, hundreds, perhaps thousands, of miles away, to enter into competition with the farmer in his own county, because the cost in transit over one mile of bad wagon road will cover the cost over many miles of good railroad. This competition may help the consumer by keeping prices from rising still higher, but it will not bring the price below the point fixed by the extra cost from the bad local roads. It will not do any good for those of us who live in well-paved cities to blame the farmers for bad roads. They cannot be expected to build good roads entirely at their own expense, and good roads will not come so long as we wait for anything as unfair as this. It is not that we do not know how to construct good roads. We know fairly well what we should do, but we hesitate to do it. In the excellent report on Highway Improvements in Ontario for 1911. there is a sufficient abstract of the systems adopted by the various countries of the world, and by thirty-three States in the United States; of these, that in use in the State of New York seems to be the most complete. Under this system roads are classified as follows: (1) State roads built at the entire

cost of the State.

(2) County roads to which the State contributes one-half, the county 35 per cent., and the township 15 per centf For maintenance, the State collects from the townships \$50 per mile per annum,

of construction.

the remainder being contributed by the (3) Township roads, to which the State contributes one-third of the cost

Can the people of Canada be made to realize that every man, woman and child suffers from the evil of bad roads whether they use the roads directly or not? Have we not as much intelligence as the citizens of these thirty-three neighboring States?

Another cause of high prices is the general inefficiency of most kinds of Employment is so easily oblabor. tained, and the worker is so apt to be so lacking in training for the particular calling it falls to his lot to occupy, that for this reason alone, three men are often needed to do the work of two. The necessity of buying food for three families instead of two, clearly raises the price of food, and every non-producer of food in Canada therefore suffers from this inefficiency of labor. Still another evil, tending to high prices and growing rapidly in these extravagant times, is the waste in the use of food. As seen in a modern hotel or dining-car, this shocks most of us, but in countless families the waste is nearly as bad proportionately. If three animals are bought where only two are really needed, the I must apologize for repeating facts price of meat is raised for everybody. which are so palpable, but in our desire to blame someone else for the suffering caused by high prices, we often refuse to see local causes which largely contribute to it, and which we could at least moderate if we chose.

We have often spoken of the tendencies consumers out of proportion to the food producers, and it is pleasing to see some slight evidence of a return to the

therefore, discussing the effect of an en- fruit, vegetables and cereals grown may immediately be increased so as to affect prices, the state of the cattle industry of North America is so serious that some years must pass before we may hope for a return of normal conditions. It looks as if the United States would soon cease to export beef, and unless we at once change our course we may be in a similar condition. We must increase the number of beef cattle, sheep, and swine, on the land very largely if our annual consumption is to be supplied without depleting the herds. We shall hope the Commission regarding our cattle ranges will produce good results, and that the assurance of high prices for meat for some time to come may induce mixed farming to a degree not yet accomplished. Since 1908, while there has been a small increase in the number of horses in Canada, there has been a serious decline in the numger of milch cows beef cattle, sheep, and swine. There should have been a very large increase, and unless every possible effort to arrest the decrease is made, this class of food will grow steadily dearer in price. The falling off is most noticeable in Ontario, while the only important gains are in Saskatchewan and Alberta.

> The Clearing House statements again give ample evidence of our rapid growth. The returns of twenty Clearing Houses for 1911 made a total of \$7,391,868,000, while for 1912 the figures were \$9,146,-286,000, a gain of 23.74 per cent. Once more we have to record a gain in every Clearing House in Canada.

> The building permits of the four chief cities were as follows:

	1911.	1912.
Montreal	14,530,000	\$19,642,000
Toronto	24,374,000	27,401,000
Winnipeg	17,550,000	20,475,000
Vancouver	17,652,000	19,388,000

Representative Dudley M. Hughes, of Georgia, is called a farmer statesman. and devotes much of his time to the agricultural interests of his district. He has requests for many new kinds of seeds, and a time ago received this

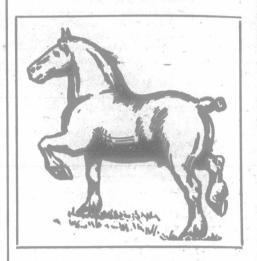
"Dear Dud,-Sam Yopp's been tellin" me of a new seedless tomatter the Guvment is growin'. I'm writing to you in hopes you will send me some of the seeds."

Official records of 261 Holstein-Friesian cows were accepted for entry in the American Advanced Registry, from December 8th to December 23rd, 1912. This herd of 261 animals, of which much over onehalf were heifers with first or second calves, produced in seven consecutive days, 99,078.5 lbs. of milk, containing 3,486.011 lbs. of butter-fat; thus show ing an average of 3.52 per cent. fat. The average production for each animal was 379.6 lbs. milk, containing 13.356 lbs. of butter-fat; equivalent to 54.23 lbs. or 25.8 quarts of milk per day, and 15.6 lbs. of the best commercial butter per week.

A. T. Spingate, Gorey, Jersey, Europe, breeder and exporter of Jersey cattle, in his advertisement, offers for sale cows, heifers, and bulls, pedigree and registered stock. Representative of his herd is the two-year-old heifer whose picture appears on another page in this paper, and which, for her age (less than three years when photographed), gives promise of an extra-good producer when matured, judging from her approved dairy and breed type, and well-balanced

At the auction sale on January 15th, of grade Holsteins, the property of D. Campbell, Komoka, Ont., excellent prices were obtained, the sale being one of the best for grades ever held in Western Ontario. The highest price reached was \$150. Seven others brought from \$90 to \$125 each. Sixteen cows and heifers that had been milked, and will freshen in March and April principally, sold for an average of over \$93 each. Eleven grade yearling heifers, due to freshen in the spring, averaged \$70 each, and thirty-three head, including six calves. made an average of \$71.30. The success attending Mr. Campbell's efforts with high-class grades is an assurance that, with pure-breds, to which he is now devoting exclusive attention, he will build up a herd on the basis of merit and profit.

SALE



Clydesdales Percherons

TUESDAY AND WEDNESDAY

Feb. 25 & 26

Union Stock Yards, TORONTO

125

Heavy Draught Horses, Stallions, Mares, Mares in foal, and Fillies

75 Clydesdales—TUESDAY

50 Percherons—WEDNESDAY

Imported and Canadian Bred

This will undoubtedly be the largest sale of the year, and anyone interested should make it a point to attend.

If you have anything to sell, write for terms and particulars.

Remember the Date

UNION STOCK YARDS OF TORONTO, LIMITED

HORSE DEPARTMENT

DED 1866

NESDAY

Yards,

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ONTARIO TORONTO ASK FOR NO. 3 BULLETIN

UR Stallion Policies, covering against loss by Death through Accident or Disease, are more liberal and afford more

protection to owners than any issued by Competing Company. They contain no vexatious clauses, having been drafted to cover the special conditions met with in this Country. They cover the horse no matter where he might be and not merely in his own stable, as certain Companies do. This is very important during

All kinds of live stock insurance transacted.

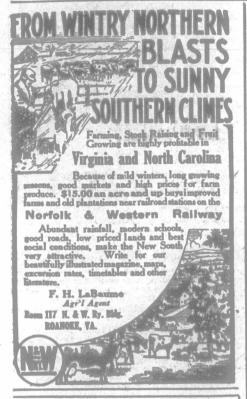
the Breeding Season as the horse might die while being on the road. Do not take any chances by insuring with others, insure with us;

The insurance premium represents only a small proportion of the service fees earned. Better risk the loss of the premium than the purchase price of your beast if it dies without insurance. INSURANCE

Better have and not need than need and not have.

Write for particulars and address of nearest agent.

THE GENERAL ANIMALS INSURANCE CO. OF CANADA. Head Office: 71a ST. JAMES STREET, MONTREAL, Que.





Put T-A Wheels Your Wagons

Wheels are so constructed that they roll smoothly over the roughest roads, without tiring your horses. And they are absolutely accident proof—yet cheaper than

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Tudhope-Anderson Co., Ltd. Orillia, Ontario

ese Wide-Tire Steel

Our Handy Farm Wagons are built low—making them easy to load and unload—and are especially designed to meet the requirements of the man who wants a light, strong wagon tor all kinds of work on the farm.

Let us send you our catalogue. It will give you complete information.



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Canadian Independent

Cream—Sweet or sour, bought at highest Toronto prices, at any point in Ontario. We furnish cans, pay promptly—haven't paid less than 32 cents for weeks. Write:

TORONTO CREAMERY CO., Ltd., Toronto

OUESTIONS AND ANSWERS. Miscellaneous.

FURNACE PIPES SWEATING. I have been using a new hot-air furnace in my house for one month, and have been very greatly troubled with the pipes sweating. Would like to know the cause, and also what one could do to prevent the sweating of the pipes. The brick chimney is in first-class condition. P. A. B.

Ans.—The trouble is that the pipes become too cold, and, consequently, the water vapor and gases in the smoke condense on the inside of the pipe. Apparently, the draft for some reason or other, is too slow. This may be because the chimney flue is too small or not the right shape, or because your pipes run too far horizontally, or s combination of two or more of these causes. A long, narrow flue in the chimney is not desirable. It should be square, and some larger than the pipe. A nine-inch flue is not too large for a good furnace chimney. I am inclined to think that the trouble is with your chimney. If, however, it is because the horizontal section of the pipe is too long, I suppose this cannot be altered, as your furnace is set. A false pipe outside the smoke pipe would probably overcome the difficulty. Sometimes sweating is overcome by admitting air into the smoke pipe near the stove or furnace. Sometimes again a galvanizediron trough is suspended just below the pipe to catch the drip, which is not a remedy, but merely a device for overcoming the disagreeable mess caused by the black drippings. If the fault is in the chimney, it is not likely you will ever have real satisfaction until it is altered. Sometimes surrounding buildings or trees make the draft slow. With so many possible causes, it is difficult to single out the one that is really responsible without more minute description. If none of these suggestions seem to strike the root of the matter. it might be well to write the manufacturers of the furnace. W. H. D.

LIVE-STOCK ASSOCIATION MEET-

Following are the dates fixed for annual meetings of live-stock association members in Toronto. Members from east of Port Arthur should purchase single-fare tickets to Toronto, and secure standard certificate receipt from their ticket agent. On these being vised in Toronto, the holders will be returned

Dominion Cattle - breeders' Association, at the Walker House, Monday, February

3rd, 3 p. m. Berkshire - breeders' Society, at the Walker House, Tuesday, February 4th, 9 a. m.

Ontario Large Yorkshire Swine-breeders' Society, Walker House, Tuesday, February 4th, 11 a. m.

Dominion Shorthorn Association, Tuesday, February 4th. Dominion Swine-breeders' Association, in Temple Building (corner Bay and

Richmond streets), room 2, 4th floor, Tuesday, February 4th, 2 p. m.
Ontario Horse - breeders' Association,

Walker House, Thursday, February 6th, 10 a. m. Ontario Sheep - breeders' Association, Walker House, Thursday, February 6th,

8 p. m. Dominion Sheep - breeders' Association, Temple Building (corner Bay and Richmond streets), room 2, 4th floor, Friday,

February 7th, 9 a. m.
Canadian Shire Horse Association,, King Edward Hotel, Friday, February

Imported Clydesdales and Percherons

On FEBRUARY 5TH, 1913

MAHER'S HORSE EXCHANGE, TORONTO 16-28 Hayden Street

T. H. Hassard, Markham, Ont., will sell at Auction, 25 Imported Clydesdale and Percheron Fillies, and 6 Clydesdale and Percheron Stallions. These mares are sired by such well-known horses as Baron of Buchlyvie, the \$47,500 champion sire, Baron Gibson, Baron Rothschild, Baron Albion, Baron Nelson Moncrieffe Marquis Pacific, The Bruce, Royal Fashion, Montrave Ronald, Musilino, Homer's Kyle and many others, and have been highly successful at the leading show

Some of these Percheron Mares were prizewinners at the Canadian National, Toronto, 1912, and first and champion at London, 1912. A three-year-old won the open mare class at Guelph, 1912.

The stallions are all young, up to good size, with lots of substance and quality and bred in the purple.

Owing to our barns being overstocked these all will be sold to the highest bidder.

Catalogues will be ready on Jan. 20, 1913, and may be obtained from either JAS. TORRANCE, Markham, Ont., THE MAHER'S HORSE EXCHANGE, 16-28 Hayden Street, Toronto, Ont.

T. H. HASSARD

MARKHAM, ONTARIO

Clydesdales & Shorthorns

FOR OUICK SALE

6 Imported Stallions-4 two-year-olds and 2 yearlings.

Also a number of in-foal mares and fillies, sired by Royal Edward, Hillhead Chief, Farmer's Counsel and Baron Lomond. The stallions are by such sires as Baron of Buchlyvie, Pride of Blacon, Baron Beaulieu, Cimaroon and Brigadier General.

IN SHORTHORNS: One young bull fit for service, sired by (Imp.) Rob Roy; also a few heifers. Prices reasonable. Address:

W. W. HOGG. Thamesford, Ont.

COLUMBUS CLYDESDALES AT HOME

To our past customers and intending purchasers, we wish to say that we can show you something really worth while in Canadian-bred and imported Clydesdale stallions and mares. Our aim is to please you.

SMITH & RICHARDSON,

Columbus, Ontario Phone connections. Stations: Oshawa G.T.R. and C.N.R., Brooklin G.T.R., Myrtle C.P.R.



CLYDESDALES OF SHOW CALIBRE

We have stallions and fillies of our 1912 importation that have won many first prizes and championships. This type, quality and breeding is unexcelled. Prices as low as any, championships. This ty and terms the best. ROBT. NESS & SON, Howick, Que.

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REPLACE the posts ulres to drove, as mising and so flushing tem. Have city con-lesces in year home.

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NO MORE WET OR COLD FEET!!

With Health Brand Clogs on, the man or woman who works in the wettest, coldest places always has warm, dry and comfortable feet. Try a pair yourself this



Higher 3 buckles High-legged Wellingtons ... \$2.75 and 3.25 Children's lace, 7's to 2's ... 1.25 Or if you wish to learn more about these wonderful Clogs before ordering, write to us for catalogue booklet, telling how Health Brand Clogs are made, etc., etc. Dealers, write for proposition.

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You can remove every one of them. We guarantee to kill and bring from the body, dead, in from 18 to 24 hours, all pin worms and bots, with the safe and sure remedy.

NEWVERMIFUGE

Absolutely harmless. Can be given to mares in foal before the eighth month. Horse owners write us that Newvermifuge has removed from 500 to 800 bots and worms from a single horse. An animal that is wormy can't help but be ugly and thin. If your horses are troubled with worms send us your order today.
6 Capsules \$1.25. 12 for \$2.00. Postage paid. Farmer's Horse Remedy Company, Dept. C2

THICK, SWOLLEN GLANDS

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that make a horse Wheeze, Roar, have Thick Wind or Choke-down, can be removed with ABSORBINE

blister, no hair gone, and horse kept at work. 22 per bottle, delivered. Book 3 E free.

ABSORBINE, JR., liniment for mankind.
Reduces Goitre, Tumors, Wens, Painful, Knotted
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DR.BELL'S Veterinary Medical Wonder. 10,000 \$1.00 bottles
FREE to horsemen who will give The Wonder a
fair trial. Guaranteed to cure Inflammation,
Colic, Coughs, Colds, Distemper, Fevers, etc.
Agents wanted. DR. BELL, V.S., Kingston, Ont.

Clydesdales, Standard-breds, and Short-horns. Our herd numbers about 40 head. Headed by the great stock bull, Trout Creek Wonder. Ten bulls for sale, from 6 to 14 months old; all good colors and good individuals. DUNCAN BROWN & SONS, Walnut Grove Stock Farm, Iona, Ont.

GOSSIP.

President Runciman, of the British Board of Agriculture, informed Captain Campbell in the House of Commons last week that the Government did not contemplate the removal of the embargo on Canadian cattle. During the past two years, he said, glanders, sheep - scab, rabies, and tuberculosis, had existed among Canadian stock.

T. H. Hassard, Markham, Ont., the well-known importer of Clydesdales and Percherons, announces in his advertisement in this issue, that owing to his barns being overstocked, he will, on Feb. five imported Clydesdale and Percheron fillies, and six Clydesdale and Percheron stallions. The Clydesdale mares are daughters of some of the best sires in daughters of some of the best sires in the clydesdale and percheron stallions. The clydesdale mares are daughters of some of the best sires in the clydesdale mares are daughters of some of the best sires in the clydesdale mares are daughters of some of the best sires in the clydesdale mares are daughters of some of the best sires in the clydesdale mares are daughters of some of the best sires in the clydesdale mare are daughters of some of the best sires in the clydesdale mare are daughters of some of the best sires in the clydesdale mare are daughters of some of the best sires in the clydesdale mare are daughters of some of the best sires in the clydesdale mare are daughters of some of the best sires in the clydesdale mare are daughters of some of the best sires in the clydesdale mare are daughters of some of the best sires in the clydesdale mare are daughters of some of the best sires in the clydesdale mare are daughters of some of the best sires in the clydesdale mare are daughters of some of the best sires in the clydesdale mare are daughters of some of the best sires in the clydesdale mare are daughters of some of the best sires in the clydesdale mare are daughters of some of the best sires in the clydesdale mare are daughters of some of the best sires in the clydesdale mare are daughters of some of the best sires in the clydesdale mare are daughters. Scotland, and were prizewinners at the leading shows in Ontario last year. James Torrance, of Markham, is also consigning three high-class fillies, all granddaughters of the invincible, Baron's Pride. The stallions to be sold in this sale are young, of good size, with plenty of substance and quality, and first-class breeding.

R. Honey & Sons, Minster Farm, Brickley, Ont., breeders of Holsteins and Yorkshires, in ordering a change in their advertisement, write: The young, light-colored bull we are offering is from the R. O. P. cow, Queen's Pride of De Kol, whose junior two-year-old record is 9,718½ lbs. milk, and 295.837 lbs. fat. Her sire is Katie's Iosco De Kol. He has two R. O. P. daughters to date, and a four-year-old with a record of 12,300 lbs. milk in nine months. Her dam is Queen of Minster. She gave 84 lbs. milk per day. The calf's sire is Lake view Burke Fayne. His dam and sire's dam average 23.14 lbs. butter in seven days, and his sire has ten sisters that average 30.63 lbs. butter in seven days, and eleven sisters that gave 100 lbs. milk per day. The eight nearest tested dams of this calf averaged 24.16 lbs. butter in seven days. We are also offering other calves of similar breeding.

MORN ON THE FARM.

"Where reason fails, the poet reaches the truth by inspiration." How beautifully the city poet is inspired to write of rural scenes.

The rising sun peeps o'er the western hill.

The ripen'd wheat appears a sea of

green ; that babbles upward past The stream

the mill With tacit murmurs, charms the urban

The cock has risen from his nest, and

scene.

Bids welcome to the silver orb of day;

The ducks aroused, down flutter from the bough,

The farmer goes to bind his sheaves of hay.

High in the branches of the peanut tree, Sir Bob White nestles on his eggs of blue:

The sportive ewes now toss their horns in glee,

The farmer's wife has nothing now

to do.

The rye is ageing in the well-filled barn, The martingales are twittering from

The farmer's daughter spins her doubtful yarn, She soon will knead the corn-flower

into bread.

Before reading this aloud to the company, ask, "What poem seems to be

imitated in these lines?" After reading, ask, "Did you notice any

Manager (five-and-ten-cent store)--What did that lady who just went out want? Shopgirl-She inquired if we had a shoe department.

AND UPWARD

SENT ON TRIAL FULLY GUARANTEED.

barns being overstocked, he will, on Feb.

5th, sell at auction, in Toronto, twentyThousands In Use justifies your investigating

Our Twenty-Year Guarantee Protects You Our wonderfully low prices and high quality on all sizes and

generous terms of trial will astonish you. Whether your dairy is large or small, do not fail to get our great offer. Our richly illustrated catalog, sent free of charge on request, is the most complete, elaborate and expensive book on Cream Separators issued by any concern in the world.

Shipments made promptly from
Winnipeg, Man., St. John, N. B., and Toronto, Ont.

Write today for our catalog and see for symmetry what a hig money.

Write today for our catalog and see for yourself what a big money saving proposition we will make you. Address, AMERICAN SEPARATOR CO., BAINBRIDGE, N. Y.

To Prospective Stallion and Mare Buyers We have at our barns the largest and finest bunch of imported approved Percheron stallions and mares ever brought into this country. Our stallions range in age from two-year-olds to six, and are all the large, drafty, heavy-boned type and good movers. Our mares, of which only a few are left, range rom two to five

As we buy for cash direct from the small French farmer, we are able to sell at prices that will save any buyer from \$200 to \$500 on a stallion, and give more quality and breeding.

To all parties contemplating buying a stallion, we feel confident that it will be to their advantage to inspect our stock, as we sell below connections.

below competition.

Correspondence invited from all interested parties.

R. HAMILTON & SON, SIMCOE, ONTARIO

ercheron Stallions and

years old, and are all in foal.

We have a large stock of imported stallions and mares to choose from. Our stallions are all Government inspected and approved, and are guaranteed foal getters. We have mares all ages, some nice matched pairs in a lot and a good many in foal. At the Toronto Exhibition and Guelph Fat Stock Shows our Percherons won more ribbons than any other firms in the business. Intending purchasers write for catalogue.

HODGKINSON & TISDALE - BEAVERTON, ONT. G. T. R. and C. N. O. Railways Long Dist. Bell 'Phone No. 18

ORMSBY GRANGE STOCK FARM, Ormstown, P. Que.

As I am feeding no steers this winter I have filled my stables with imported fillies, selected personally in Scotland; many in foal to such sires as Hiawatha, Sir Hugo, King's Champion, Sir Rudolph, etc. Fourteen have been sold, eighteen of the best are still on hand—the selections being made more on account of price than superiority. There are no culls in the lot. Send for pedigrees and particulars

D. MCEACHRAN.

Imported Clydesdale Fillies of "Baron's Pride," "Hiawatha" and "Royal Favorite" strains; also children's ponies. Long-distance 'phone 704 ring 41. ALEX. F. McNIVEN.

CLYDESDALES OF CANADA'S STANDARD

They have arrived—my third importation for 1912, stallions and fillies. I have now the biggest selection in Canada, and a few toppers in stallions. High-class breeding and high-class quality and low prices. G. A. BRODIE, Newmarket P.O.

Clydesdales and Percherons
reality as well as in name. Highest types of the breeds. Stallions and fillies of either breed. Over forty head to select from. Draft horses in Come and see them. Terms

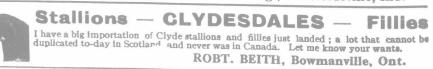


T. D. ELLIOTT & SON, BOLTON, ONTARIO



BARBER BROS., Gatineau Pt., Que., near Ottawa.

Percheron, Belgian and Shire Stallions—Imported and home-bred. Three to four years old, maturing 1,800 to 2,400 lbs. No finer lot in America. Prices and terms reasonable. Barns in city. LEW W. COCHRAN, Office, 205 Ben Hur Bldg., Crawfordsville, Ind.



PERCHERONS, STANDARD-BRED and FRENCH COACHERS

am offering prizewinners and champions in Percheron stallions, Standard-bred stallions, rench Coach stallions and Percheron mares, filly and horse colts. .Prices very low. C. P. R., Ottawa to Montreal line. J. E. ARNOLD, Grenville, Quebec. **DED** 1866

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Buyers

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HORSE OWNERS! USE CAUSTIC BALSAM.

A safe, speedy and positive cure.
The safest, Beet BLISTER ever
used. Removes all bunches from
Herses. Impossible to produce
sear or blemish. Send for circulays. Secoles selves free.
THE LAWRENCE-WILLIAMS CO., Toronto, Canada

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Spavin and Ringbone Paste Use it under our guarantee—your meney refranded if it doesn't make the horse go seund. Most cases cured by a single 45-minute application—occasionally two required. Cures Bone Spavin, Bingbone and Sidebone, new and old cases alike. Write for detailed information and a free copy of Fleming's Vest-Pocket

Veterinary Adviser Minety-six pages, durably bound, indexed and illustrated. Covers over one hundred veterinary subjects. Read this book before you treat any kind of lameness in horses.

FILEMING BROS., Chemists,
75 Church Street. Toronto, Ont.

For the cure of Spavins, Ringbone, Curbs, Splints, Windgalls, Capped Hock, Strains or Bruises, Thick Neck from Distamper, Ring-

worm on cattie, and to remove all unnatural en-largements. This prepa-ration, unlike

is the only pre paration in the world guaranteed to kill a Ringbone or any Spavin, or money refunded, and will not kill the bair. Manufac ured by Dr. Frederick A. Page & Son, 7 and 9 Yorkshire R ad, London, E C. Mailed to any advress upon receipt of price, \$1.00. Canadan agents:

J. A. JOHNSTON & Co., Druggists, 171 King St., B. TOR NTO ONT.

Stallion Inspection and Enrolment

Under the

ONTARIO STALLION ACT

For information communicate at once with

A. P. WESTERVELT,

Sec'y Stallion Enrolment Board Parliament Buildings, TORONTO.

Messrs. HICKMAN & SCRUBY Court Lodge, Egerton, Kent, Eng. EXPORTERS OF

Live Stock of all Descriptions Draft horses of all breeds a specialty. Intending buyers should write us for particulars, as we can place before them the most attractive proposition they have yet experienced. We can send highest ref-erences from satisfied buyers of nearly all breeds

Notice to Importers C. CHABOUDEZ & SON 205 rue La Fayette, PARIS, FRANCE.

If you want to buy Percheron Horses and Mares, I will save you time and money and all trouble with papers and shipment. Will meet importers at any landing port. I am acquainted with all breeders and farmers. Thirty years' experience. Best reference. Correspondence solicited.

For Sale—Registered Clyde Mare, 4 years old, sire Acme (imp.) [6187] (10485), dam Agnes (imp.) 13536; in foal to Lord Charming [2264] 7564. W. H. KER & SON, St. George, Ont., Brant Co.

QUESTIONS AND ANSWERS. Veterinary.

TENDER GUMS.

Filly six months old, weaned in November, when drinking cold water, will take a few swallows, and then stretch her head out and make a noise as though sucking. She will repeat this after a few more mouthfuls. A yellowish material precipitates in her urine. She is doing fairly well. A. H. Y.

Ans.—The filly is getting the third molar tooth in each row, the gums are tender, and the cold water causes pain. She will get over this in a few months more. For her urine, give 1 dram nitrate of potassium three times daily until it becomes clear.

BURSAL ENLARGEMENT.

Colt has a soft lump on fore ankle. I blistered it, and it reduced the lump, but it reappeared. E. G. K.

Ans.—This is a bursal enlargement. These are very liable to reappear after being treated. Blister it every four weeks all winter. This may cause a contraction of the sac so that it will not reappear, but we find a tendency to reappearance in mostly all cases. Another method of treatment is the use of absorbents, as a liniment made of four drams each of iodine and iodide of potassium and four ounces each of alcohol and glycerine. Rub a little in once daily, and continue treatment for at least two months.

DISLOCATION OF PATELLA.

Three-year-old Clyde colt dislocated his stifle last May. The luxation was reduced, and a liniment applied. In September it again became dislocated. It was replaced, and a blister applied, but it does not seem to be fully in place. He drags the leg. Had I better destroy him? J. P.

Ans.—It is probable the patella becomes partially dislocated. It would not be wise to destroy him; as he should at least make a useful animal, even though a complete recovery may not take place. Keep him quiet in a box stall, and blister the front and inside of the joint every four weeks all winter.

TUBERCULIN TEST.

I tested my own cow as per instructions given by you, except that I took the temperatures every two hours instead of three. The highest temperature before injection was 105 degrees, and the highest after 106.2. The cow became sick, refused to eat, and the supply of milk fell off very much. She has had a cough for more than a year. She will calve in a couple of months. Will the calf be all right? Ans.-When the temperature before injection is so much above 103 degrees, and especially when as high as 105 de grees, disease of some nature that has a marked effect upon the temperature is undoubtedly present, and the tuberculin test practically denotes nothing. The test is reliable only in cases that do not show marked increase of normal temperature. The test has no apparent effect whatever on a healthy animal. The fact that your cow showed marked constitutional symptoms, strongly denotes tuberculosis, and the fact that she has coughed for over a year confirms the suspicion. There is practically no doubt that she is tubercular, and it is unsafe to keep her with healthy cattle. It is highly improbable that the calf will be diseased when born, and if not allowed to nurse the dam at all, but raised on pure food, and in non-contaminated stables, will grow up healthy, but if it nurse its dam, it is highly

FRUIT FARMS FOR SALE. Attention is directed to the advertisement of fruit farms for sale in the Garden of Canada, by Melvin Gayman & Co., St. Catharines, Ont. These farms, ranging from eight to sixty acres, are situated in the best section of Canada for the growth of fruit and vegetables, while the facilities for shipping to the best markets are complete, and the church, school, and social privileges, are all that can be desired. If interested, look up the advertisement and write for information, mentioning "The Farmer's Advocate.

probable it will contract the disease. V.

GIVING UP BUSINESS

Imp. Clydesdales and Hackneys

BY AUCTION

Having sold their farm and stables, THE GRAHAM-RENFREW CO., LTD., of Bedford Park, Ont., will, on

Friday, February 7th, 1913

At the Repository of BURNS & SHEPPARD, Toronto, commencing at 11 a.m. sharp,

Hold an absolute dispersion sale of their entire stock of high-class horses, among which are five imp. and one Canadian-bred Clydesdale stallions, two imp. Hackney stallions, seventeen imp. and four Canadian-bred Clydesdale mares and fillies, two Clyde filly foals, two imp. Hackney mares, imp. Hackney and Welsh ponies, several high-class harness horses. Many of these were prizewinners and champions at such exhibitions as Toronto and Ottawa. All are young and in prime condition. Stars for the show-ring or breeding purposes.

Terms: For mares, fillies, ponies and harness horses, cash. For stallions, half cash, balance arranged.

Catalogues on application to

Graham-Renfrew Company, Bedford Park, Ontario

Oat Feed,

Feed Meal

Barley Meal

We can ship you the above in mixed carloads or

In straight carloads

If your dealer does not handle the ARCHIBALD BRAND, write us direct for samples and prices. It will pay you.

ARCHIBALD LIMITED.

WOODSTOCK

ONTARIO

Just Arrived-Clydesdale Stallions and Fillies Bigger and better than ever before is our 1912 importation just arrived. Stallions with size, character, quality and breeding. Fillies of high-class breeding and quality for show or breeding purposes. Come and see them. Terms and prices right. JOHN A. BOAS & SON Queensville P.O. and Sta, on Toronto to Sutton Blectric Line L.-D. Phone.

CLYDESDALES --- A NEW IMPORTATION We have lately landed a shipment of Clyde stallions and fillies, several Scotch winners among them. Their breeding is unsurpassed. Comparison with any others in the country will make you a buyer from us. Our prices are as low as the lowest. L.-D. 'Phone, GOODFELLOW BROS., MACVILLE P. O., ONT.; BOLTON STATION, C. P. R.



QUALITY AND SIZE IN For the best the breed produces in the combination of clyde Stallions and Filles. Prices and terms unequaled.

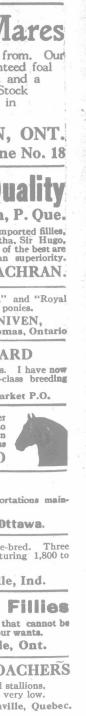
JAMES TORRANCE, MARKHAM,
Locust Hill, C. P. R.

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Rosedale Stock Farm—Breeder and importer of Clydesdale and Shire horses, sheep. Established over 40 years. Always on hand, a big selection of highest quality. Write your wants.

G.T.R. and C.P.R., Electric cars.

J. M. GARDHOUSE, Weston, Ont.



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You Need This

Poultry Experts say it is the most practical helpful book on poultry raising published.

It contains the results of years of experience—tells how the most successful poultrymen make big money—how you can succeed with very little capital—how you can make your own brooder—how to construct your hen houses, coops, etc.—in fact every one of its 112 pages bristle with money making, money saving facts. No manufacturer ever put out such a book before. Think of it—75 of its 112 pages contain no advertising—just helpful information and beautiful illustrations that will interest and instruct.

You Want This Book and we want you to have it. It is Free Just write a postcard for it today. Read Just write a postcard for it today. Read how one man made \$12,000 in one year raising poultry. Get the benefit of the experience of others. Learn how to select your layers—what feeds are best—how to treat diseases, etc. We publish this big book and distribute it free and postpaid because we want every man, woman or child we start in the poultry business to succeed and make money. A little helpful advice and information at the start will prevent serious mistakes. Before you buy an incubator you will surely want to know about the 1913 Prairie State Sand Tray and other new improvements. See for yourself why



hatch and raise strong healthy chicks—the kind that grow into profits last. Prairie State machines are endorsed by the leading experiment stations and agricultural colleges everywhere. Sending for colleges everywhere.

Gunn, Langlois & Co., Ltd. Box 16 Montreal, Canada © fanufacturum of the Prairie State Incubators in Canada.

Calves Without Milk BLATCHFORD'S CALF MEAL

The Complete Milk Substitute The result of over 100 years' experience with calf-raisers. The only Calf Meal made in an exclusive Calf Meal Factory. As rich as new milk at less than half the cost. Makes rapid growth. Stops scouring. Three calves can be raised on it at the cost of one. Get Bulletin, "How to Raise Calves Cheaply and Successfully Without Milk." by sending a post card to



NOTICE TO HORSE IMPORTERS **GERALD POWELL.**

Commission Agent and Interpreter, NOGENT LE ROTROU, FRANCE

Will meet importers at any port in France or Belgium, and assist them to buy Percherons, Belgians, French Coach horses. All information about ahlpping, banking, and pedigrees. Many years experience; best references. Correspondence solicited

Aberdeen-Angus Cattle Mature early, Best of beef Several young bulls for sale. Appl; MANAGER "GRAPE GRANGE" FARM Clarksburg (int

3 Choice Aberdeen-Angus Bulls For Sale, from 8 to 14 months of age.

Glengore Stock Farm, Erin, Ontario R. R. No. 2,

SHORTHORNS and SWINE—Have some choice young bulls for sale, also cows and heifers of show material, some with calves at foot. Also choice Yorkshire and Berkshire sows. ISRAEL GROFF, Elmire, Operation Elmira, Ontario.

PATERIS procured everywhere EGERTON R. CASE, Registered Attorney, Dept. E. Temple Building, Toronto Booklets on request, 20 years' experience. GOSSIP.

Mesars. Hodgkinson & Tisdale, Beaverton, Ont., write: We have just delivered to Levi Good, of Greenock, Bruce County, Ont., that well-known prizewinning Percheron stallion, Jovial (imp.) [3003] (34143). He is a massive, dark gray colt, weighing 1,960 pounds, with lots of quality, and very high action. In breeding he excells, being a son of the greatest living Percheron sire, Etudiant (59291), now at the head of Senator White's Percheron stud at Leesburg, Va. Jovial was the first-prize three-year-old in a very strong class at Toronto last September, and was second in the same class at Guelph in December. Mr. Good is to be complimented on his selection.

The scheme outlined by Hon. Mr. Runciman, President of the British Board of Agriculture, at the Farmers' Club dinner recently, for the granting of premiums to heavy horse stallions of the Shire, Suffolk, and Clydesdale types. has, needless to say, met with a hearty reception among farmer breeders. What was at the back of Mr. Runciman's mind was clear to the close reader of his thoughts. He has obviously realized that what has been done for the heavy horse in the past has been accomplished by private enterprise of the large landowning horse-breeding enthusiast. Times are changing so far as the ownership of the land is concerned, and Mr. Runciman is anticipating what may be the effect of those changes, and is wishful to counteract them. This new scheme of the Board will benefit not only the tenant farmer, but the small landowning farmer and the small holder. These sires are to be under the control of Associations, | some of which already existed, and mere undoubtedly will formed. The sum the Commissioners are prepared to recommend is something like £80 per sire, and this will allow for a certain number of heavy horses to be in use in districts where hitherto they were almost unknown. - Live - Stock Journal.

The Toronto sale of Scotch Shorthorns, on February 5th, further particulars of which are given in our advertising columns, should be kept in mind by those interested in good cattle. Breeders of the first rank assure us that they are offering the best that have gone from their herds. There are a fair proportion of young bulls and tried bulls, as well as cows and heifers of the best breeding and form. There has been no time in the history of cattle in Canada. when it looked so sure that cattle must pay immense profits for breeding and feeding, as does the present time. Cattle are high now, and they are getting shorter in supply every day-we are using more than we are producing. What is worth doing at all, is worth doing well. It will be worth your time and trouble to see this sale, for it is in a class by There are always great bargains there, too. Last year some of the cattle were resold at more than three times their cost. Read the Advertisement and act .- Robert Miller.

About four miles north of Woodstock, in the County of Oxford, now famous as the great Holstein center of Ontario, is another of those noted Holstein herds that has had no small share in the making of the Holstein history of that historic county. This one is the property of W. E. Thompson, R. R. No. 7, Woodstock. A look over his splendid farm, buildings, and stable architecture, is an infallible horoscope of the energetic and business character of the man, never satisfied with any half-way measures either as regards the sanitary and economic plans of his buildings, or the high-class character of his herd of blackand-whites. The herd, now some thirtyodd strong, contains many that are up to a high standard, two-year-olds with official records running along 15 and 16 lbs., and a number of the adults over 20 lbs. Several of the younger ones are daughters of that grandly-bred bull, Hillview Colantha Butter Baron, and are now bred to the present stock bull, Centreview Segis Statesman, whose 22 nearest ancestors have records that average 23.4 lbs., and with that he is a greatgrandson of the renowned King Segis with 65 daughters and 16 sons in the A. R. O. From such breeding as this, Mr. Thompson is offering for sale a few young bulls from 13 months of age down, also a limited number of females.

THE GREAT CANADIAN ANNUAL SALE OF

Shorthorns

Will be held at the UNION STOCK YARDS, TORONTO, ONT.. on

Wednesday, February 5th, 1913

Beginning promptly at 11 o'clock a.m.

W. R. Elliott & Sons, Guelph, Ont., will sell one bull, Climax, by Upperw. R. Elliott & Sons, Gueiph, Ont., will sell one buil, Climax, by Uppermill Omega, from Imported Cinderella 9th, one of the best breeding cows we know, this bull is two years old, and he is one of the best and richest-bred young bulls to be found any place. They also sell three females, two of them are Miss Ramsdens, full sisters, that have won second place in Toronto as produce of and both by the same sire as the great champion heifer that will be sold in this sale, a great pair, worth a lot; the fourth is a Brawith Bud, by same sire and from a Marquis of Zenda mother, a grand heifer, too.

John Miller, Jr., Ashburn, Ont., will contribute seven head, two bulls and five heifers: Duchess of Glosters, one Beauty, one Matchless, one Cruickshank Village and one bull from Imported Fancy. A splendid lot of good going cattle, bred right, full of profit for the buyer, the best young things in his herd.

Robert Miller, Stouffville, Ont., will furnish 22 head, the best lot that have ever left Burnbrae Farm. There are seven bulls, a Broadhooks by Superb Sultan, a Cruickshank Buckingham by same sire, a great son of Imported Ruby 2nd by same sire, a great red bull from a Bruce Mary Lind cow, a Butterfly bull, one of the best we have seen, from imported dam and a Duthie-bred sire, he has full sister one of the best cows living, a brother at the head of one of the greatest herds in Canada. He is worth any price; one Jessamine of great merit. Making all told the greatest lot of bulls ever offered in any sale in Canada.

Mention this paper when you write

ROBERT MILLER.

Stouffville, Ont., catalogue



Go over to the wood let and size up your trees. Every 16-foot log averaging it inches thick will make 100 feet of good lumber. Ten such logs make 1000 feet of lumber worth from \$18 to \$80 (our book teils.) An "American" Saw Mill will saw them at a cost of \$4 to \$5 per 1000 feet. You have the teams, the time and the eugine. It will pay to get the dollars out of those trees. You can do it for your neighbors, too—more profit for you. All you need is an "American" Mill—so simple anyone can run it, so strong it lasts for years. An S'H. P. engine will cut up to \$500 feet per day. Farm lumbering is explained in our new book No. 32 Sent free. Ask our nearest office.

AMERICAN SAW MILL MACHINERY CO.

Makers of Standard Saw Mills of any size or capacity. 112 Hope St., Hackettstown, N. J.

Orchard.-Grove Herefords I have lately made a big importation of fulls, Hellers and Mature Cowe from the leading herds of Hilmela. In my herd you now have 25 Bulls to select from; a big range of Helfers and Cows. High-class show and breeding stock a specialty. L. O. CLIFFORD, Oshawa, Ontario, G.T.R. and C.N.R.



THE MAPLES HEREFORDS Never before have had so choice a lot of bulls and helfers about one year old, including the lst-prise calf herd at Toronto. We can also spare a few older ones. We breed our winners and win with our breeding. Inspection invited. Write us your wants. MRS. W. H. HUNTER & SONS, THE MAPLES, ONTARIO

SHORTHORNS!

something nice in heifers. Catalogue of herd and list of young animals on application. H. Cargill & Son, Props.,
John Clancy, Manager. Cargill, Ont., Bruce Co.



I Have SHORTHORN Bulls and Heifers, SHROPSHIRE and COTSWOLD Rams and Ewes, CLYDESDALE Fillies and Colts that are as good as I have ever had, and that I will sell for prices within the reach of all. We have been in the business 75 years, always in the front rank, and propose to keep that position. You cannot writing us for prices.

ROBERT MILLER, STOUFFVILLE, ONTARIO

1861 Irvine-Side Shorthorns 1912

Offering for sale young bulls and heifers that are the result of over 50 years successful breeding. Pure Scotch, and carrying the best blood of the breed. Few good Oxford Down rams. John Watt & Son, Salem P. O., Ont. Elora Station, G. T. and C. P. R.



If in need of a bull those that we are offering should interest you. They range from 8 to 14 n.onths old, and are nearly all bred direct from imported stock. We also have females of all ages. Bell 'phone. Burlington Junction, G. T. R. W. G. PETTIT & SONS, Freeman, Ontario.





Springhurst Shorthorns
heifer, were all sired by bulls of my breeding. I have now for sale ten young herd HARRY SMITH, HAY P. O., ONT

Shorthorns—Records show that cattle bought from the Salem herd won numerous ribbons the past season. We have others. Several young bulls are priced reasonably. Elora G. T. R. and C. P. R. J. A. WATT, Salem, Ont.

GOSSIP.

A word to the wise is sufficient. T.

D. Elliott, af Bolton, Ont., in his many years' experience as an importer of Clydesdale and Percheron stallions and fillies, was never in so favorable a posi-

tion to supply the discriminating Cana-

dian buyer with the above breeds in

either stallions or fillies as at present. His selection is a large one, and the type, quality and breeding unsurpassed.

he has a number of Toronto and Guelph

winners, his prices are as low as the

same quality can be got for anywhere,

and his terms are to suit the purchaser.

J. B. HOGATE'S SECOND PERCHERON

IMPORTATION.

There are not many men on this side

of the Atlantic that can show the vol-

ume of sales of Percheron stallions and mares equal to that of J. B. Hogate, of Weston, Ont. His big importation of

the fall of 1912, although only landing

in September, went off so fast that he

was compelled to take a second trip to

France to meet the demand. This sec-

ond lot arrived in December, and the

demand is increasing. Mr. Hogate has

been importing horses to Canada for

very many years, and thoroughly under-

stands the requirements of the Canadian

trade. His stable is now full of the

pick of the big French studs, selected

for their superior draft type and quality

of underpinning. Anyone wanting a Toronto, Ottawa, Ogdensburg or Guelph

winner, should visit the stables and

make their own selection while the nection is big and the quality up to the

ROSEDALE STOCK FARM.

For over forty years, one of the leading Canadian breeding centers for Clydesdale and Shire horses, Shetland and Welsh ponies, Shorthorn cattle, and Leicester sheep, the property of J. M.

Gardhouse, Rosedale, is situated a short

distance from Weston, Ont., and con-

nected with Toronto by the G. T. R., C. P. R., and electric cars. The reputation of Mr. Gardhouse as an importer

and breeder of the above lines of stock, and as a keen, discriminating judge, is continental. He is one of the most ex-

tensive breeders and dealers in pure-bred stock in Ontario, his large herd of

Scotch Shorthorns is one of the best in the country, strictly high-class in their

massiveness of flesh, carrying the most

popular blood of the breed, they are cer-

tainly a pleasure to their owner, and

an envy to visitors. No further words of the descriptive quality of the Shires is necessary than to say that at the late Horse Show at Guelph, both the

stallion and mare championships went to the entries of this farm. At the head

of the Clydesdale stud is the big, flashy bay two-year-old, Ryecroft Model (imp.),

a son of the Royal first-prize horse, Ryecroft, dam by Knockavoury. At

Guelph, in a big, sensational class, this colt was placed fourth, with many a

good one below him. He is for sale.

Of all the above lines of stock, Mr.

Gardhouse can always show a big selection to intending purchasers. Write

Jimson was a little, sharp-eyed shoe-

maker with stooped shoulders and a chin

whisker. He lived in a Missouri River town, and whenever he drank too much

he used to wind up by going home and thrashing his wife. She never failed to go over to a neighbor's after a session with the old man and complain bitterly

After a while the neighbors grew weary

of the oft-repeated tale, and remarked: "Well, you seem to like it. You always

take it willingly. Why don't you pick up something and hit him with it the

The wife considered the matter, and the

next time her lord began to beat her she grasped a chair and smashed it over his head. The old man fell back, in stark

him your wants.

of his treatment.

next time he whips you?"

standard it is at present.

Get in touch with him.

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INDED 1866

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Shorthorns a including the champion fat

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ten young nerd P. O., ONT amazement, dropped his hands, and

"Why, Mary! Why, Mary!" he whimpered. "What on earth is the matter with you? You never done this way n, Ont.

Is the most wholly nutritious stock food you can buy. Made of the purest Linseed-by the celebrated Old Patent Process (which makes it

purest Linseed—by the celebrated Old Patent Process (which makes it keep three or four years, if necessary) proved by feeding tests, both practical and scientific, to be 95% digestible.

Even if LIVINGSTON'S OIL CAKE MEAL costs twice as much as the other foods which do not keep and cannot be half digested, it would pay every farmer and dairyman to get LIVINGSTON'S OIL CAKE MEAL. The cost is only a trifle higher.

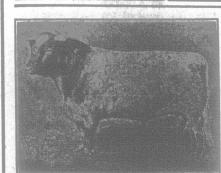
LIVINGSTON'S OIL CAKE MEAL is realy cheapest in the end—quickly increasing and improving the milk and healthily FATTENING CATTLE.

Ask your dealer. If he cannot supply you, write us.

THE DOMINION LINSEED OIL CO. LTD. Manufacturers.

BADEN, ONTARIO.

MONTREAL, QUEBEC.



SHORTHORMS FOR SALE

Two high-class imported yearling bulls. Eighteen bull calves, 8 to 14 months old, by the imported sires Bandsman and Village Duke. Forty heifers and young cows of best Scotch families, bred to imported sires. Some Toronto and London prizewinners, both sexes; also some imp, yearling heifers.

MITCHELL BROS. Burlington, Ontario Farm 14-mile from Burlington Junction Station.

Shorthorns of breeding and quality—Our offering this year in young built and heifers, out of Scotch cow, and sired by our great Mildreds Royal, are put up on show lines, and strictly first-class. GEO, GIER & SON, Grand Valley, Ont., P.O. and Sta-

Woodholme Shorthorns

I have for sale a number of choice young bulls, from 8 to 14 months old (pare Scotch); also a number of beffers, 1 to 2 years old, of this level type, and richest breeding. G. M. FORSYTH, North Claremont, Ont.

SPRING VALLEY SHORTHORNS Herd headed by the two imported bulls, Newton Ringleader, =78788 = and Scottish Pride, =36106 = The females are of the best Scottish families Young stock of both sexes for sale at reasonable rices. Telephone connection.

KYLE BROS. - - Ayr, Ontario.

"The Manor" Scotch Shorthorns

Present offering: Three choice yearling bulls. Young cows in calf. Yearling heifers; Clippers, Minas, Wimples, Julias, etc. Inspection solicited. Prices moderate. 'Phone connection. J.T. GIBSON, DENFIELD, ONTARIO.

1854 Maple Lodge Stock Farm 1912 Have the best lot of young Shorthorn bulls ever in berd at one time. Several from cows that give 50 lbs. milk per day, and sired by "Senator Lavender.", A few excellent Leicester ewes and rams for sale.

A. W. SMITH, Maple Lodge, Ont. Lucan Crossing, G.T.Ry., one Mile.

OAKLAND 50 SHORTHORNS Present offering is eight bulls, including our hampion stock bull, Scotch Grey 72002=; all oans and reds. Also a goodly number of females, il of the dual-purpose strain. Good cattle and big selects. JNO. ELDER & SON, HENSALL, ONTARIO

Fletcher's Shorthorns Our herd of Pure Scotch Sherthorns (Imp.) or direct from imported stock, is headed by the grandly-bred Bruce Mayflower bull. Royal Bruce (Imp.) =55038 = (89009) 278853. Choice young stock for eals. GEO. D. FLETCHER. R. R. No. 2, Brin, Ont. One Shorthorn Bull for sale—Also helfer calf of superior quality and breeding; their dams have been hand milked. Prices right. STEWART M. GRAHAM, Port Perry, Ont.



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N our plans we embody simplicity, strength, durability, roominess.

We show you how to cut your timber to save waste.

We give you bills of material so you will know just what to order from foundation to roof.

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The Metal Shingle & Siding Co., Limited, Preston, Ont.: Please send "Better Buildings" Free.

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This Home-made Cough Syrup Will Surprise You

Stope Even Whooping Cough Quickly. A Family Supply at Small Cost.

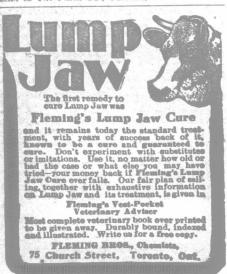
Here is a home-made remedy. 'at takes hold of a cough instantly, and will usually cure the most stubborn case in 24 hours. This recipe makes 16 ounces—enough for a whole family. You couldn't buy as much or as good ready-made cough syrup for \$2.50.

Mix two cups of granulated sugar with one cup of warm water, and stir two minutes. Put 2½ ounces of Pinex (fifty cents' worth) in a 16-ounce bottle, and add the Sugar Svrup. This keeps perfectly and has a pleasant: aste—children like it. Braces up the appetite and is slightly laxative, which helps end a cough.

You probably know the medical value of pine rou propably know the medical value of pine in treating asthma, bronchitis and other throat troubles, sore lungs, etc. There is nothing better. Pinex is the most valuable concentrated compound of Norway white pine extract, rich in guiaicol and all the natural healing pine elements. Other preparations will not work in this formula.

The prompt results from this inexpensive remedy have made friends for it in thousands of homes in the United States and Canada, which explains why the plan has been imitated often, but never success-

A guaranty of absolute satisfaction, or money promptly refunded, goes with this secipe. Your druggist has Pinex, or will get it for you. If not send to The Pinex Co., Toronto, Ont.





Cherrybank Ayrshires

We are offering 5 young bulls fit for service, from dams of 40 lbs. to 50 lbs. daily of 4% milk. Anything else in the herd priced reasonable. This herd won over \$1,200 prize money in 1911. P. D. McArthur, North Georgetown, Quebec

AYRSHIRES FOR SALE!

Seven bulls and a few heifers of different ages, sired by Woodroffe Comrade, whose first heifer in milk gave 11,392 lbs. milk, 480 lbs. butterfat in one year. Prices right. H. C. HAMILL, BOX GROVE P. O., ONT. Markham, G. T. R.; Locust Hill, C. P. R. Bell 'phone connection from Markham.

Hillcrest Ayrshires—At head of herd is Ivanhoe of Tanglewild, a son of the champion Ayrshire cow, Primrose of Tanglewild, R.O.P. test 16,195 lbs. milk and 625.62 lbs. fat; 60 head to select from. Inspection invited.

F. H. HARRIS, Mt. Elgin, Ont.

The building of the Tower of Babel was progressing nicely when suddenly someone asked: "How are we going to solve the trust question ?"

Thence arose such a confusion of tongues that no one has been able to understand anyone else ever since.

Wind in

A CENTINE WITH MICHAL IN

SNA ANTIE TIG AND G EAN

SNAP COMPAN

Chapped Hands Won't Bother You

if instead of soap you use SNAP, the original hand cleaner.

SNAP con-

tains no lye or acids, but glycerine and neutral oils which keep the skin smooth and in splendid condition.

Try SNAP for a week and notice the difference.

Order from your dealer to-day. Save coupons.

OUESTIONS AND ANSWERS. Miscellaneous.

TAX PENALTY.

Can any municipal council charge a percentage on taxes if paid before the year's end? Ontario.

Ans .- Yes; but not exceeding five per cent., and only after provision therefor has been made by by-law.

FARM DRAINAGE.

A owns a hundred acres on the north side of a concession, or highway. owns a hundred acres on the south side same concession or highway. There is a natural water fall from A's farm down across B's farm, and then it empties into a creek. About 1892, A put in a tile drain on his farm and ran it out to the concession, then dug a ditch from his tile to the big tile that crossed the highway. From here he dug a ditch through B's farm, which was woods (here the ditch went 3 x 3 feet), and kept it open as long as the woods remained. Then the council came along and put a new tile in across the road, dug up A's tile for a rod back from the fence, put them in deeper, and ran them up to the big tile, and then filled up the open ditch between A's fence and the big tile so as to make a winter sleigh - road along A's fence. B clears up the woods and makes a field of it, and changes the ditch across his farm, and he makes it about 21 feet wide by about 18 inches deep, where it was 3 x 3 feet. He has been working over the ditch for the past five years, and now it is no better than a good plow furrow for size. There is 21 feet of water standing in the big tile across the road; and water is standing each side of B's ditch for one or two rods. A's tile are covered with 21 feet of water that is standing in the big tile that crosses the highway.

1. A asked B to clean out the ditch so as to drain the water out of the big tile across the highway. B refused, saying he only had to take surface water. Is this correct?

2. If a tile drain were put across B's farm, would A have to help put it in, after digging that open ditch, or will B have to open up an open ditch?

AN ADVOCATE READER.

Ontario. Ans.-1 and 2. There is no hard-andfast rule for it. If the parties cannot agree, and the matter is considered of sufficient importance to warrant the proceedings, steps should be taken to obtain an award by the Engineer of the municipality - under The Ditches and Water-courses Act (Chap. 74, of the Ontario Statutes of 1912).

Veterinary.

ECZEMA.

Cow has an irritation of the skin. She rubs and licks herself, and I noticed two small, bare spots, near root of tail. J. J. F. H.

Ans.-This is eczema. Make a five-percent. solution of creolin or Zenoleum, heat to about 120 degrees Fahr., and give a good washing with a scrubbingbrush. Clothe, and keep warm until dry. Repeat the treatment every four or five days as long as necessary.

MISCELLANEOUS.

1. Pig took sick, refused food, and in about a week turned purple and died. 2. Calf suffered much pain, jerked a great deal, and died. What was the trouble, and how should it have been treated?

3. Calves have chronic diarrhea. feed them skimmed milk and ground flaxsced. MRS. G. C.

Ans.-1. This pig was constipated. A purgation of 2 to 6 ounces Epsom salts, according to size, would probably have saved it.

2. The symptoms given are not sufficiently definite to enable a man to diagnose. This also probably was constipation, and a purgation of Epsom salts or raw linseed oil might have saved it. 3. If possible, feed whole milk for a few days, but whatever milk you give. add to it one-fifth of its bulk of lime water. Feed chopped oats with the hulls s fted out, instead of the linseed



BRANTFORD Sold in Eastern Ontario and Eastern Canada by THE FROST & WOOD CO. LTD. SMITHS FALLS

on hillsides, on the level or on wet ground.

various speeds, either

Montreal, St. John

Sold in Western Ontario and Western Canada by

COCKSHUTT PLOW CO. LTD.

GLENHURST AYRSHIRES ESTABLISHED OVER 50 YEARS AGO, and ever since kept up to a high standard. We can supply females of all ages and young bulls, the result of a lifetime's intelligent breeding; 45 head to select from. Let me know your wants. JAMES BENNING, WILLIAMSTOWN P. O. Summerstown Sta., Glengarry

STOCKWOOD AYRSHIRES This herd is now headed by White Hill Free Trader (imp.) No. 33273, championship bull at Sherbrooke; also headed the 1st-prize aged herd. All ages for sale. Satisfaction guaranteed. D. M. WATT, St. Louis Sta., Que. Telephone in house.

80 Imported and Canadian-bred Avrshires

I am now offering by private sale my entire herd of 80 Ayrshires, imported, imp. in dam and Canadian-bred; big producers, show stock, high-class in quality, with best breeding. L.-D. 'РНОNE. DAVID HUNTER,

MAXVILLE, ONTARIO Stonehouse Ayrshires
Of choicest imported stock and with imp. sires and dams. I am offering young cows, 3, 4
and 5 years of age; a grand bunch of imp. yearling heifers, and a particularly good pair

of young bulls. L.-D. 'Phone. HECTOR GORDON, Howick, Que. Ayrshires and Yorkshires—We now offer at bargams bull calves dropped in July, 1912. All bred from (imp.) sire and from either dams with good records, or their daughters either imported or home bred. Some choice February Alex. Hume & Co., Menie, Ont.

City View Ayrshires Three young bulls fit for service; females from 3 months to ancestors. Always something for sale. Bell 'phone connections; 1½ miles from 5 railroad stations.

JAMES BEGG & SON, R. R. 1, St. Thomas, Ont.

Brampton Jerseys

Bulls fit for service are getting scarce. Just a few left. Year ling heifers in calf are in great demand, 6 for sale; 6 now being bred. Brampton Stockwell the sire. A few good cows and some calves for sale. Production and quality. B. H. BULL & SON, Brampton, Ont.

For Sale—Jersey cows and heifers and bulls
Herd-book stock. For further particulars apply to
A. T. SPRINGATE, Breeder and Exporter,
Gorey, Jersey, Europe.

Balaphorene Farm Jerseys Present offerings:
Choice bull calves
from three to sixteen months, at very reasonable
prices for quick sale. JOSEPH SEABROOK,
Havelock, Ontario. Havelock, Ontario.

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FERTILIZERS

Make Worn-out Soils Yield Bumper Crops



Lump Rock Salt, \$10.00 for ton lots, f.o.b. Toronto Toronto Salt Works, 128 Adelaide Street E. G. J. CLIFF, MANAGER. Toronto Ont.

Maple Grove, Welcome Stock Farms—Motto: Richest breeding, superior individuals, representing the famous Tidy Abbekerk's, the Mercena's, also granddaughters of Pietertje Hengerveld's Count De Kol, and Pontiac Korndyke and other rich producers; 100 head to select from King Lyons Heagerveld and two grandsons of Pontiac Korndyke head the herds.

H. ROLLERT. Tavistock. Ontario

H. BOLLERT, Tavistock, Ontario R. R. No. 1.



PURE - BRED REGISTERED Holstein Cattle

The most profitable dairy breed, greatest in eise, milk, butter-fat and in vitality. Send for FREE illustrated descriptive booklets.

BOLSTEIN - FRIESIAN ASSOCIATION, F. L. Houghton, Sec., Box 127, Battlebore, Vt.

Holsteins of Quality

Write us to-day for our proposition, telling you how any good dairyman may own a registered Holstein bull from a Record-of-Performance cow without investing a cent

for him. MONRO & LAWLESS, "Elmdale Farm"
Thorold, Ontario

The Maples Holsteins I am now offering for sale 10 young bulls, official record backing on both sire's and dam's side. They proof could enough for service, and my prices should

soon sell them. WALBURN RIVERS, Foldens, Ont. Phone. Oxford County.

Maple Holstein-Friesians Special offer-Hill from 1 to 15 months old. The growthy kind that will give good service. One from a son of Ever-green March, and all from Record of Merit dams. Write for particulars. G. W. CLEMONS, St. George, Ont. Bell telephone.

Holsteins and Tamworths I am over-stocked and will sell a lot of young cowe and heifers, winners and bred from winners; officially backed and right good ones. Also Tamworths of all ages.

R. O. Morrow & Son, Hilton P.O., Ont.

Brighton Station. 'Phone.

For Sale Choice Reg. HOLSTEIN HEIFER CALVES, sired by Homestead Colantha Sir Abberkerk 2nd, whose dam and sire's dam average 26.81 butter 7 days and from tested dams; and two yearling heifers, sired by Corinne Calamity Ormsby. W. A. Bryant, Cairngorm, Ont.

HOLSTEINS and YORKSHIRES Minster Farm offers a young bull fit for service in spring, from a R.O.P. dam, whose & nearest tested dams average 24.16 lbs. butter in 7 days. For extended pedigree and particulars, write: Richard Honey & Sons, Brickley, Ont.

For Sale—Registered Holstein Bull, four years old, weighing about 1,800 pounds. Apply:

ROBT. DOBBIE, Harrington, Que.

QUESTIONS AND ANSWERS. Miscellaneous.

BARLEY FOR MARE.

Is rolled barley, mixed with oats and bran, injurious to mares in foal?

Ans.-If the mares are accustomed to the barley, and are not fed too much of it, and are given a good percentage of bran and oats, it should not be injurious. Rolled oats would be better without the barley.

DOG TAXES.

1. Is it possible and lawful to enforce the taxing of dogs in an unorganized district ?

2. If not, what means should be taken by the sattlers to enforce such a law? Ontario.

2. It does not appear to us that there is at present any means open to them wh reby they could impose and collect such a tax.

PASTURE FOR PIGS AND GEESE.

What would make a good pasture to sow in the spring for geese and pigs to

Ans.—Oats and peas make a good pig pasture, and a little rape might perhaps be added with advantage. For geese, an old grass meadow makes the best pasture. If necessary to sow anything, we see no reason why the above mixture should not be all right, but have had no experience on the point.

COLLECTING MONEY.

got from B, in October, 1909, (\$40) forty dollars. He did not give any note. B has never sought to collect till now. Can he do so? OLD SUBSCRIBER. Ontario.

Ans.-It was presumably a loan; and if B can prove, by admission from A, or other evidence, the fact of his having loaned A the money, he can certainly recover the amount, with interest, by suit in the Division Court, provided A has means which can be reached for satisfaction of the judgment when obtained. RURAL-DELIVERY REGISTERED MAIL.

What is the regulation on rural-mail delivery route regarding the delivery of J. M. registered letters?

Ans .-- From the post office where the route starts, a notice is sent to the box-holder of the arrival of registered mail. He may go for it himself, or give order on printed form supplied to the courier, who will bring the letter or parcel on next trip. A standing order may be given the courier to bring all such mail.

CONSTRUCTING STAVE SILO.

I want to build a square silo in my barn. Have a box stall I can use about twelve feet square, stone on two sides. Please inform me how best to construct it. Have plenty of plank.

Ans.-Square siles have gone pretty well out of date, partly for the reason that it is difficult to avoid deterioration, or actual spoiling of the silage in the corners of the silo. We would suggest a round stave silo instead, and for fuller directions than it is expedient to publish here, you might write J. H. Grisdale, Director Experimental Farms, Ottawa, for his bulletin on silo construction.

STATUTE LABOR.

Our township statute labor has been commuted to a stated amount for a number of years. Last municipal election (for 1912) a vote was submitted to the ratepayers for or against the repeal of the Statute-labor By-law, and the bylaw was repealed at said election. have not been notified to perform any statute labor, through the absence of a road overseer. Now the council have instructed the tax collector to collect at the rate of \$1 per day. I have tendered the land tax, but the collector refused to accept the same, minus statute-labor tax. Can the council enforce payment of statute tax?

Ans.-We think so.

HIGHEST PRICE FOR CREAM

T. EATON Co. is now paying 31c per lb. for Butter Fat. We buy cream, sweet or sour, of good flavor. We furnish the cans and pay the express charges within a radius of 250 miles of Toronto.

We test and weigh each can on arrival, and send you a statement for same.

We pay all patrons once a week, and the price is increased as the price of butter advances.

Drop us a card, and we shall be pleased to furnish you with any further information you may require.

CANADA TORONTO

Wholesome, nutritious, palatable, digestible. Feed your milch cows "Malasofat" and increase your profits. "Malasofat" produces maximum results at a minimum cost. Ask your dealer, or send direct for information.

A BALANCED FOOD

PARK FEED MILLING COMPANY, LIMITED

17 River Street

Toronto, Ontario, Canada

AVONDALE STOCK FARM

Herd bulls: Prince Hengerveld Pietje 8230 (50582). Sire, Pietje 22nd Woodcrest Lad, out on Pietje 22nd, 31.00 lbs. butter 7 days; greatest imported cow, and one of the greatest young sires of the herd, having already sired a 35-lb. 4-year-old daughter. Dam, Princess Hengerveld De Kol, 33.02 lbs. butter 7 days, highest record daughter of Hengerveld De Kol, with 116 tested daughters. King Pontiac Artis Canada 10042 (72294). Sire, King of the Pontiacs, greatest living sire of the herd, and sired by the greatest sire of the breed Pontiac Korndyke. Dam, Pontiac Artis, daughter of Hengerveld De Kol. Record, 31.8 lbs. butter 7 days, 128 lbs. 30 days, 1,076 lbs. 365 days. Young bulls from these two great sires for sale, from cows with records up to 29 lbs. Write us, or better come and see them. Visitors always welcome, Address all correspondence to:

A. C. HARDY, Owner.

H. LORNE LOGAN, Mar., Brockville, Ont. H. LORNE LOGAN, Mgr., Brockville, Ont.

A. C. HARDY, Owner.



You can have your choice, at moderate prices, of 52 head—45 females and 7 young bulls; all the female are young, majority of them heifers. They carry the best blood of the breed. The best lot ever offered for sale in Canada. A. H. TEEPLE, Curries P.O. and Station.
L. D. 'Phone from Woodstock.

King Segis Walker The highest pedigreed sire in Canada. Average record of dam, grandama, and g. gr., dams: Butter, 28.36 lbs.; milk, 544.42 lbs.; and Pontiac Pet, record 37.67 lbs., butter and the world's champion; also a built calf whose m is a daughter of Pontiac Korndyke, and just completed a record of 722 lbs. in seven days

A. A. FAREWELL, OSHAWA, ONTARIO

AKEVIEW HOLSTEINS

We have a few bulls left that are ready for service, and must sell them now, as our barns are full. They are sired by Count Hengarveld Fayne De Kol, or out of his daughters by Dutchland Colantha Sir Mona, and all their dams are in the Record of Merit. For immediate sale the prices will be greatly reduced. A post card will bring extended pedigrees by return of mail.

E. F. OSLER.

BRONTE, ONTARIO



OFFERS sons of Pontiac Korndyke 25983, the greatest sire that ever lived, daughters that have made 7-day records above 30 pounds each. Do you want pound next bull to be a brother to such cows as Pontiac Lady Korndyke (38.02), Pontiac Clarking Devices (27.27).

Pet (37.67), Pontiac Clothilde De Kol 2nd (37.21), Sadie Vale Korndyke (36.20), and eight others above 30 pounds? If you do, write me for price on a son of Pontiac Korndyke. I also have sons of Rag Apple Korndyke and Sir Johanna Colantha Gladi. E. H. DOLLAR, HEUVELTON, NEW YORK. Near Prescott.

Summer Hill Holsteins Would you like your next bull to be from the same sire as the helfer that holds the world's record for yearly work, and the same sire as the Champion Cow of Canada in the seven day work, and the same sire as the Champion four-year-old of Canada in the thirty day work? We have bulls of this breeding to offer whose dams have records of over 27 lbs. We have also some extra choire helfers bred to our junior herd bull whose dam has a record of 34.60 lbs. butter in seven days and 111 lbs. milk a day. Yorkshires of all ages. D. C. FLATT & SON, R. R. No. 2, Hamilton, Oat.

HOLSTEINS AND YORKSHIRES We have at present a number of two-year-old heifers, some in calf and some just bred, also our stock bull King Peter Teak sired by Peter Teak O. A. C., dam Queen Mabe. Also some sows safe in pig. A. WATSON & SONS, R. R. NO. 1., ST. THOMAS, ONTARIO.



HOLSTEINS

I can supply a limited number of high-producing and highly-bred females; also young bulls, bred on both sides from high official backing. Let me know your wants. W. E. THOMPSON, R. R. No. 7, Woodstock, Ont.

AMERICAN SHROPSHIRE REGISTRY ASSOCIATION Only Shropshire Association recognized by U. S. Government Largest membership of any live-stock association in the world. Life membership \$5.00. No yearly dues. Write for information. J. M. Wade, Secretary, Lafayette, Indiana



White Hill

3273, cham-

ges for sale.

ne in house.

ves dropped in and from either lenie, Ont. m 3 months to from R. O. P. ilroad stations.

ew left. Year e; 6 now being good cows and

ton, Ont.

Present offerings: Choice bull calves very reasonable EABROOK, lock, Ontario.



Cattle and



A cent spent now may be the means of saving you three calves next fall. Send your name and address for free sample and circular. It is no trouble, and you can judge them for yourself. Write to-day. F. G. JAMES, Bowmanville, Ont.

Oxfords and Hampshires.

The oldest established flock in America. Present offering: a few two-shear and older ewes of both breeds, bred to our imported champion ram.

Also a few nice ewe lambs by imported sires. Prices reasonable. Henry Arkell & Sons, Arkell, Ont. L.-D.'phone in house.

In lamb. Ewe lambs. Chester White Boars about five months old. One Holstein buil 12 months etd. All of the choicest breeding, and will be sold at a bargain to make room.

B. H. HARDING, THORNDALE, ONTARIO Mapleview Farm.

ALLOWAY LODGE

Southdown Sheep Aberdeen - Angus Cattle

A few young bulls and helfers that are right in breeding and quality, will go at farmer's prices. ROBT. McEWEN, 'Phone, R.R. Stn. London.

SPRINGBANK FIFTEEN EWE LAMES OXFORDS ! by imported sires. Pringle right. Order quick WILLIAM BARNET & SONS, LIVING SPRINGS, ONTARIO.

For Sale—A number of young, registered Lincoln Breeding Ewes and Ewe Lambs of choice quality and breeding, and bred to first-class rams. For particulars, apply to S. W. EDWARDS, Watford P.O., Ont. Maple Grove Yorkshires & Holsteins

Bight young boars fit for use; good, long, straight, growthy ones, and young pigs of various ages and both sexes, sired by S. H. Jack (28315) (imp.), for three years champion at Toronto. A few beautiful sows, big enough to breed. One two-year-old Holstein bull—a show animal that has few equals—to be sold very cheaply; out of a heavy milking dam. One yearling Holstein bull, a good one, sired by Dutchland Olantha Sir Abbekerk, and out of a grand young cow; also a helfer calf, just lately dropped, a beautiful, straight calf, out of the same dam; also grade helfer, calves and yearlings. All will be sold at bargain prices.

H. S. McDIARMID, Fingal, Ont. Shedden Station. Large White Yorkshires



Have a choice lot of sows in pig. Boars ready for service and young piguof both sense supplied not akin, as reasonable prices. At breed in g stock imported, or from importes herds. Write or call on

H. J. Davis, Woodstock, Ont C. P. R. and G. T. R. Long-distance phone

Newcastle Tamworths and Shorthorns Present offering: Seven boars from 6 to 10 months eld; boars and sow pigs 6 weeks to 4 months; sows bred and others ready to breed, from such noted stock as Colwill's Choice, Canada's champion boar, 1901, '02, '03 and '05, and Imp. Cholderton Golden Secret.

Also a few choice Shorthorn heifers in calf; beef and milk combined. Show stock a specialty. Prices right L.-D. Phone. A A. Colwill Newcastle Ont.

Duroc Jersey Swine AND JERSEY Grand stock, either sex, constantly for sale. Price reasonable. MACCAMPBELL & SONS, Northwood. Ontarlo.

Morriston Tamworths and Shorthorns Present offering: Four dandy bull calves that will make show winners, from 6 to 10 months old.
Choice Tamworths, both sexes. Chas. Currie, Morriston, Ontario.

TAMWORTHS A few sows bred to farrow in February and March; Also choice pigs from three to five months. Bell 'phone, HERBERT GERMAN, St. George, Ont.

Cloverdale Berkshires Present offering: Sows bred and others ready to breed; also younger stock of both sexes. Prices reasonable.

C. J. LANG, Hampton, Ont. Durham Co. HAMPSHIRE SWINE Both sexes and all ages, from imported stock. Prices reasonable 6. A. POWELL, Arva. Ontarle Four miles north of London

COLD IN HEAD CATARRH
INSTANTLY RELIEVED BY THE DLD
DR. MARSHALL'S
CATARRH SNUFF
25 PAID BY CH. KEITH MER CLEVELAND, OHID

QUESTIONS AND ANSWERS. Miscellaneous.

MAIL ROUTE.

A mail route is starting in this parish, Will the courier be obliged to go off on a concession - line road, about three quarters or a mile, there being three residences on this road, to distribute mail. This is the end of the road. QUEBEC READER.

Ans .- Your enquiry should be sent to the Post-office Inspector of the District or Division in which your parish is situated, and under whose direction we presume the route is being laid out.

BENEFIT UNDER WILL

A makes a will. Willing landed property to B, C, D and E, each to have one-quarter-each part specified in willwith the proviso that in case of D's death, D's share would go to E. D is a party incapable of looking after his own, and would have to be looked after by others. On the land is valuable timber.

1. Could same be sold for D's benefit? 2. In case D outlived E, would E's heirs get his share? Ontario.

Ans.-1. It could probably be so arranged; but certain legal proceedings would have to be taken, and solicitor's services would be requisite. 2. Apparently they would.

THOROUGHPIN.

Mare six years old, about thirteen hundred weight, has thoroughpin on left hind leg, not noticed when working or walking, but shows up when trotting. Lameness appears to be in stifle, but can neither see nor feel anything on it. W. P.

Ans.-If it is thoroughpin, the usual treatment is to apply once daily the following mixture: Three drams each of biniodide of mercury and potassium iodide, and six ounces of water. Clip off the hair, and apply as above. After four or five applications, cease for a week or ten days till the soreness passes away, and repeat. This is an absorbent blister, and will not make the part very sore.

DITCHING.

A, B, C, D, E and F, have a spring creek overflowing a large area of land. A has dug part of his ditch. B has dug part of his, and cannot dig more on account of water being backed up by C and D, E and F having their ditch dug. C being a widow woman, refuses to open the ditch, as the place is rented. Can B force C to open ditch, B offering to dig the ditch if C would pay for it, B also offering to dig half of said ditch if C would dig the other half? C still refuses. Ditch is 40 rods through swampy land, thus flooding 20 acres of ood pasture land on B alone

A SUBSCRIBER. Ontario. Ans.-It is probable that B is in a position to do so. If the matter really cannot be arranged by agreement between all the parties interested (including C), the municipal Engineer should be called in, pursuant to the provisions of The Ditches and Water-courses Act (Ontario Statutes, 1912, Chap. 74).

TRANSPLANTING CEDARS-CEMENT FOR WALL.

1. I have three or four small cedar trees about six feet high. Can I transplant them safely, and what time?

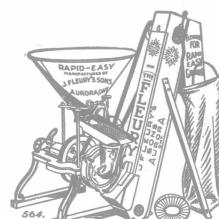
2. How much gravel and cement will it take for the foundation of a barn 30 x 50 feet, about two feet high, and how much for the floor?

Ans.-1. If the cedars are placed on much the same kind of soil as that upon which they now stand, and are carefully looked after, they should do all right. Transplant them in early spring. Soon

after seeding is a good time. 2. If this is just a footing, it would not need to be made of such a high percentage of cement, but we take it that it is for an ordinary wall. For a 12-inch wall, it would require, approximately, ten barrels of cement, and between two and a half and three cords of gravel. The floor would require about sixteen barrels of cement and four cords of gravel. If the bottom is not good, more gravel might be needed to fill in before commencing the cement. These estimates are made for cement mixed 1 to 8.



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"Rapid-Easy" Grinder

which will do most work for you with least power, and will effect for you a marked saving in your production of fat stock.

Rapid-Easy" Grinders

are made in sizes to suit all powers; for custom work or for farm work; may be run with steam or gas engine, tread or sweep power, or windmill. State what power you propose to use, and for about what stock you propose to grind, and we shall be pleased to advise you a machine that will best suit your purpose.

J. FLEURY'S SONS,

Aurora, Ontario

Medals and Diplomas: World's Fairs, Chicago and Paris.

50 young Shropshire ewes of good size and quality, bred to the great breeding ram,
Belvoir Sensation. 40 Cotswold ewes, from one to three shears, bred to choice
rams. Also a few extra good ewe lambs. Get my prices before
you buy, as I have never been able to offer
such good value at a reasonable price

Claremont Stn., C.P.R., 3 miles. Pickering, Stn., G.T.R., 7 miles. JOHN MILLER, Brougham, Ont.

Belmont Shropshires and Sou hdowns

I have a grand lot of rams and ewes for sale, both breeds. Anyone wanting a good ram, or a few good breeding ewes, should write me at once and get the first choice.

C. Hodgson, Brantford, Ont.



COTSWOLDS AND SHROPSHIRES At Toronto I won 1st an flock. champion on both ram and ewe in Cotswolds. I have for sale a big lot of shearling rams and ewes, ram and ewe lambs of both breeds; strictly high-class.

J. MILLER, JR., "BLAIRGOWRIE FARM," ASHBURN P. O., ONTARIO





Present offering: Select sows. Choice boars ready for service; also younger stock, the get of Duke of Somerset, imp., and out of imported dams. Satisfaction and safe delivery guaranteed. H. M. VANDERLIP, Breeder and Importer, CAINSVILLE P.O. Langford station, Brantford and Hamilton Radial.

"The man who buys a Feed without knowing its ingredients would buy a 'pig in a poke' any day."

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We are firm believers in the doctrine, that if your goods are right the fact cannot receive too much publicity.

The value of a Feed is equal to the sumtotal value of its ingredients.

If the ingredients are valuable and rich in feeding qualities, secrecy is unnecessary and undesirable. Publicity is the thing, and the more of it the better.

The proportion of each ingredient entering into the manufacture of Caldwell's Molasses Meal is plainly printed on every tag.

This is for your protection, and we believe it's the main cause of our success.

We are the originators of the Pure Cane Molasses idea in a Molasses Meal, and are the only manufacturers using this ingredient exclusively.

The result is that

is higher in sugar, and lower in fibre than any of the imported competing varieties.

This statement can be easily proven by submitting samples to the Government analyst. In Caldwell's Molasses Meal we offer you a Feed scientifically prepared, highly palatable, very nutritious, possessing a certain therapeutic value and of guaranteed composition.

N. B.—If you haven't tried our Meal and your Feedman does not handle it, just drop a card to the mill to-day, and we will be glad to forward you literature

The CALDWELL FEED COMPANY, Ltd.

DUNDAS, ONTARIO

Silage Would Increase Your Dairy



This winter weather, when dry feeding is reducing your dairy out-put, don't you often wish that you had erected a silo last summer?

If you had done so you would right now be feeding your cows succulent and milk-producing silage, just as good a milk-producing food as green summer pasturage, and getting a good deal more milk and making more profit out of your dairy.

All successful dairymen now-a-days consider a good silo a very necessary part of their dairy equipment and there is no question but that feeding silage greatly increases the milk flow.

If you havn't a silo perhaps you have made up your mind that this is the last year you are going to get along without one.

If so, don't put off ordering it until late next summer and perhaps find yourself in the same fix next year.

Write to-day for 48 page Ideal Green Feed Silo Book.

This book contains much interesting and valuable information about silos, silage and silage feeding, and even if you are not yet ready to buy, you will

find the book interesting and instructive.

More than twice as many Ideal Green Feed Silos were sold last year than in any previous year. If you keep cows you need a Silo. Full specifications are given in the Silo book. Be sure to write for it.

We are exclusive distributors in Canada of the World's Standard De Laval Cream Separators, and also carry a complete line of creamery and dairy machinery and supplies. If interested, write for separate catalogues.

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a cow a minute and everyone milked thoroughly, gently and without any possible chance of injury to even the most sensitive animal. Stop and figure

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the independence it gives you from shiftless unreliable workmen, the freedom from worry and drudgery, the assurance of perfectly clean milk -free from stable air and bacteria, and last but not least, the opportunity to double the size of your herd. Consider all these advantages and you will understand why Mr. Henry Fielden, Supt. of the famous Branford Farms, Groton, Conn., says: "It is one of the most profitable investments we have ever made on this farm." The Sharples Mechanical Milker is the only machine using the patented

"Teat Cup with the Upward Squeeze" The only milking machine that presses the blood back up into circulation after each down stroke, preventing fevers, swelling and congestion. This one great improvement marks the difference between the success and failure of mechanical milkers, It removes the last possible objection to the mechanical milker and explains why it is used on the world's highest priced dairy cows. We will make you a proposition that guarantees satisfaction to you in your own dairy or no sale. Write for Catalog today.

THE SHARPLES SEPARATOR CO.

WINNIPEG, MAN. TORONTO, ONT.

Please Mention The Advocate

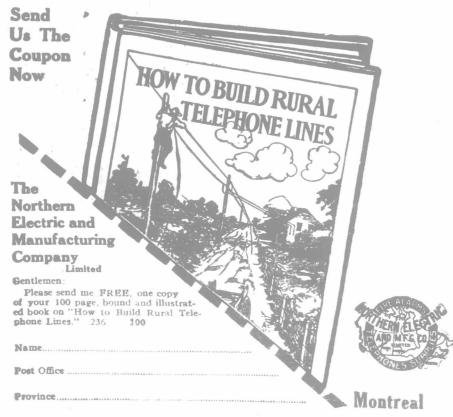
LET US SHOW YOU HOW EASILY YOU AND YOUR NEIGHBORS CAN HAVE A TELEPHONE SYSTEM OF YOUR OWN

OU—you and your neighbors—would have a telephone system for your own community, if you only realized how easily you yourselves could construct it and get it going. If you knew, in detail, how you and the people around you could form, own and control a local, self-maintaining company, for your own use and convenience, you would have such a system. There would be a telephone system in your community to-day if you knew how easily you and your neighbors could build every foot of the line and install every instrument yourselves—and especially if you realized that you do not need very much capital to do it

either. Now, there is no reason why you should not know all these facts; for we stand ready to give you, for the mere asking, every bit of this information, provided only that you are sufficiently interested in the subject to write and ask us for it.

We Send Only On Request

cloth bound book of one hundred pages, full of a carefully indexed mass of information on rural telephones. This book tells everything; with it before you, you can organize your own company and construct your own line. It tells you absolutely everything you need to know, step by step, as you go along. There is no other book in existence that deals so thoroughly with every vital, essential fact. Remember, this book has cost a lot of money and careful study to prepare. We really ought to charge for it. However, we send it free on request—but ONLY on request. To get it you have to send us the coupon and thus signify that you are really interested. The book is too valuable to distribute haphazard.





The Northern Electric is the instrument on the wall of nine out of every ten telephone users in Canada.

We Will Explain

All About Rural

Company Organization

OU do not need experience to organize a telephone company in your own community, when you have our book. It tells you exactly what you have to do and how to do it. All you need to do is to follow the instructions that the book gives and then get out and interest your neighbors. Whether you want to organize a mutual or a stock company, the book will tell you how.

You And Just Your Own Friends Can Build Every Foot Of Line

BUILDING your own line keeps down construction costs. With the help we give you, you do not need to employ expert linemen. The book explains the last word in line construction and contains, in this one chapter alone, thirtyseven diagrams and illustrations, showing how to make every kind of connection necessary, how to route the line, how to put the fittings on the poles, how to guy the poles, how to place the insulators ar string the wires-in fact, how to handle every detail as well as an expert lineman can. On request, we will also tell you of your provincial regulations, what your government requires and what it will do to help you.

The Cost To Operate Your Own Line is Low

OU can readily understand that when you and your friends have the entire management in your own hands, you can regulate the cost of running the line. In the book we explain just exactly what is necessary and you can take your pencil and figure out how little it will cost you to have a telephone on the wall in your own house.

Let Us Explain To You How To Interest Your Neighbors

THE first step in getting started, is to enthuse your neighbors and get them all in with you. When you have read "How to Build Rural Telephone Lines," you will have a mass of information at your finger ends that will enable you to place positive, definite facts before your friends, to enthuse them with the idea of a self-maintaining, community-owned system and to make everybody around you anxious to help. All it needs to get a telephone system started, is for some one progressive man to start the ball rolling. With the information that we will place at your command, you can get everything organized in short order.

There Will Be A Telephone System in Your Locality — Get Posted

SOONER or later someone is going to start a telephone system in your community, just as systems are being started every day in farming centres throughout the Dominion. When this subject comes up, you will want the full particulars before you. Now is the time for you to post yourself. The book tells you everything and, if you are interested, we will be glad to send it to you free. Do you care to sign the coupon and send it to us now?

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