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RURAL HOME

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LEADERS OF AN ORGANIZATION THAT STANDS FOR ALL THAT IS BEST IN RURAL LIFE

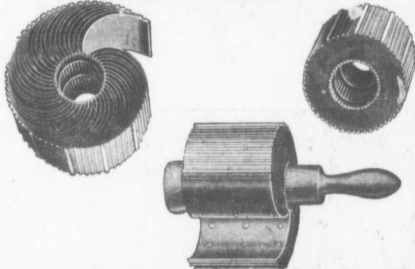
For nearly forty years the Dominion Grange, the only representative farmers' organization in Ontario, has fought the farmers' battles and has striven to better the conditions under which we farmers live and work. As a social centre, as a disseminator of the best agricultural knowledge, but above all, as a champion of progressive legislation, the Grange has performed a grand work for Ontario farmers, and Canadian citizenship in general. The officers herewith to be seen, elected at the recent annual meeting held in Toronto, are inspired by the same high ideals that have made the Grange a power for good. With the hearty co-operation of Ontario farmers, the Grange will more and more exert an influence that is commensurate with the importance of the industry it represents. The names of the officers illustrated herewith will be found on page nine.

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1. Increased capacity of from 30 to 50 per cent. over the most efficient of previous devices, combined with very clean skimming under a wide range of conditions as to milk, temperatures, etc.
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These words to the wise, who will yet recognize their opportunity in our Big ORCHARD AND GARDEN ANNUAL, OUT MARCH 7TH.

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WHERE A LARGE SUM OF HARD EARNED MONEY IS LOST EACH YEAR

It has been estimated that on many farms of one hundred acres the loss due to unnecessary depreciation in the value of farm implements amounts to between \$100 and \$200. Scenes such as the one illustrated by our cartoonist were once more common than they are now but there is still too much indifference among some of our farmers to the proper housing of expensive farm implements. The loss in one year would pay for the erection of a good shed. With so much money locked up in farm implements we cannot afford not to have one. "A penny saved is a penny gained." The gain through housing implements, however, is not measured in pennies but in dollars—in some cases hundreds of dollars.

DAIRYING THE MOST PROGRESSIVE BRANCH OF LIVE STOCK INDUSTRY

A Serious Shortage of Beef Cattle in Canada Reported at the National Live Stock Convention—Sheep Declining—Swine Just Holding Their Own—But Dairying is on the Increase.

CANADA, with its vast areas of agricultural land and a population largely engaged in agricultural pursuits, is rapidly becoming an importing rather than an exporting country so far as meat products are concerned. In almost every province of the Dominion the production of beef cattle, sheep and swine is either standing still or actually declining. In no province is production increasing at the same rate as consumption. Such was the somewhat gloomy conclusion reached by the delegates at the National Live Stock Convention held at Ottawa on Monday and Tuesday of last week. Practically every live stock organization in Canada and every province was represented at the Convention. The conclusion reached by this representative body of men may therefore be taken as a true portrayal of conditions as they exist in the live stock industry. All delegates were agreed that vigorous action will be necessary to put the live stock industry on a basis commensurate with its importance, or even to save it from further decline.

One of the greatest evils that is sure to accompany a decline in the live stock industry is the loss of soil fertility. Speaker after speaker at this Convention pointed out the absolute necessity of live stock on the farm if fertility is to be maintained. Men from every province told of the system of farming being carried on that is resulting in a steady impoverishment of the soil. Dr. J. G. Rutherford, Dominion Live Stock Commissioner, called attention to the enormous waste of animal food in Canada. The pasture grass never made use of and the thousands of tons of straw that are burned each year might all be manufactured into animal products. "People will be wondering," said the Doctor, "one hundred years hence what we were thinking about when we permitted such an enormous waste."

There are, however, a few bright

features in the live stock situation. The horse interests are progressive. The percentage of pure bred live stock is increasing. The most hopeful feature of all is the steady progress that is being made by the dairy industry.

More dairying, as many of the speakers testified, means a returning to the soil of practically all that is taken from it and greater returns per acre to the farmer than from any other branch of live stock farming. In his address on "The Dairy Industry of Canada," Mr. W. F. Stephen, of Huntington, Que., pointed out that in 1901 there were in Canada 2,292,120 milch cows and in 1910 the number was 2,905,902. When the figures for 1911 are available he predicted that they would show 3,000,000 milch cows in Canada. In Ontario the number of milch cows had increased 22 per cent in the last 10 years; in Quebec, 18 per cent, and in the newer western provinces the increase varied from 100 per cent to 150 per cent. Only in Prince Edward Island has there been a decrease, and there the number had dropped five per cent. In four years the value of the dairy output of the country had increased \$10,500,000.

SLOW IMPROVEMENT IN QUALITY. Mr. Stephen admitted that the improvement in the quality of the cattle was not as great as might be desired. The average annual production of cows in 1900 had been 3,200 lbs. of milk, and at the present time it is not over 3,500 lbs. This poor showing he attributed to wrong methods of breeding and feeding. The signs of the times, however, point to improvement. All of our breeders report a great demand for pure bred cattle. There is an increased number of registrations of pure bred dairy cattle and the cow testing movement is extending itself to all parts of the country.

Strong testimony to the value of (Continued on page 8)

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FARM AND DAIRY & RURAL HOME

BETTER PROTECTION NEEDED AGAINST SALE OF ADULTERATED MAPLE PRODUCTS

John H. Grimm, Montreal, P.Q.

Cheap Cane Syrup Sold as the Product of the Maple. A Loss to Both Producers and Consumers of Maple Syrup. A Simple Remedy Proposed

ON behalf of the maple syrup and sugar producers of Canada, I wish to lay before Farm and Dairy readers a matter of great importance as to the law existing regarding the adulteration of maple syrup and maple sugar.

There are about 55,000 growers of maple products in Canada; and of all the agricultural products of Canada there is none other so characteristically Canadian, none other that brings such a large and constant return, with so little expenditure of labor, so small an investment of capital, and so little impoverishment of the soil. To the average intelligent maple grower, the annual revenue from the sap is practically so much "found money." This most profitable industry has in recent years been threatened with extinction, not from natural causes, from failure of the crop, from foreign competition, nor from falling off in the demand, but purely and simply through the failure of the Dominion Parliament to adequately protect the honest grower of maple products from fraudulent competition, and to protect the public against misrepresentation and adulteration.

LEGISLATION WANTED

Over 15,000 of the 55,000 maple syrup and maple sugar producers have signed a petition to the Government, asking for legislative and administrative action to save the industry from extinction. We are convinced that every one of the 55,000 would gladly sign the petition if it were possible to give them an opportunity. The interest of the consumer in this connection is precisely identical with that of the producer; the only interests opposed are those of the few manufacturers engaged in the production of adulterated maple products.

While there can be no objection to the sale of cane or other syrup compounds which are not injurious to health, they should be sold for exactly what they are; and to allow them to be sold as the much-more-expensive product of the maple trees is a fraud upon the consumer, and a great discouragement to the Canadian farmers, who are supplying the market with genuine maple syrup and sugar.

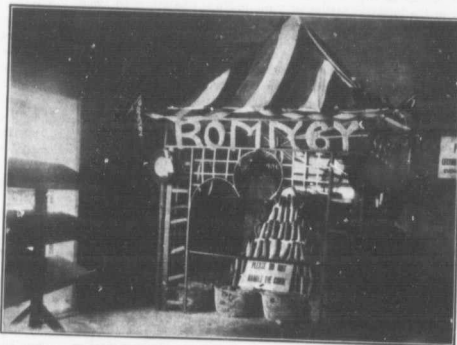
THEY CALL IT MAPLE SYRUP

The market is now flooded with pretended maple syrups, many of which contain absolutely no sap of the maple tree, and others consist of a mixture containing a little of the poorest black maple syrup, and a great deal of cane sugar and other cheaper compounds, and labelled in such a manner as to mislead the public into the belief that they are pure maple syrups; or what means

the same thing to the average buyer, "maple compounds and maple flavors." The extent to which these mixtures are taking the place of the genuine product of the maple tree may be gathered from the number of flavoring mixtures freely advertised and sold for no other possible purpose than to make molasses and other cheap syrups taste something like maple syrup.

NOT MAPLE SYRUP AT ALL

Now, a gallon of molasses with an ounce of maple flavoring or essence in it is not maple syrup. It is molasses, and should be sold as mo-



South Western Ontario is Admirably Adapted to Corn Growing

The natural adaptability of south western Ontario to the production of high class seed corn was strongly emphasized by the splendid exhibits at the corn show held at Tilbury recently. The attractive exhibit of the Romney Farmers' Club, Kent Co., Ont., here shown, was one of the features of the Fair.

lasses, at the price of molasses, plus flavoring. People who are persuaded to buy this concoction under the impression that it is maple syrup are simply swindled. To allow the mixture to be sold under that name, "maple compound or maple flavor" that may lead the purchaser to believe that he is buying a maple tree product, is misleading to the public, and to sanction a gross injustice upon the Canadian farmer who honestly places the genuine article upon the market.

PROHIBIT FREE USE OF WORD "MAPLE"

The conspicuous use of the word "maple" or any of its derivatives such as maple flavor on cans of "compound," should be prohibited; and the use of any of these words on cans containing syrups wholly, or largely composed of substitutes, should be forbidden in any shape or form. If anybody wants to buy and eat cane or beet sugar or molasses, at the price of maple sugar or syrup, by all means let him do it; but do not

allow anyone to swindle him by selling him the inferior and cheaper product under false pretence that it is the better and more expensive one.

For example, 10 samples of maple syrup were recently purchased by a friend of mine in two western towns. Six of these were labelled "pure maple," two "maple compound" and two "maple flavors." One of the six sold as pure contained no genuine maple, while the others contained very little maple. My friend writes that out of 18 grocers visited, about one-third produced the compound when asked for maple syrup. One grocer in Saskatoon insisted on calling a can of mixture pure, even after I called his attention to the label on the can. To put the case as it is here, if a grocer has both the pure and the compound, he will explain to his customers when they ask for maple syrup that he has the pure and the compound, and offer them their choice. On the other hand, if a grocer has only the compound, as is the case with many, he gives out the compound to customers asking for maple syrup without any explanation as to its contents.

HIGH PRICES FOR TRASH

There appears to be very little distinction made in regard to price between syrups sold as pure and those sold as compound or maple flavor. The cans varied considerably in size, but reducing them all to the price per gallon, the six samples sold as pure average \$2.50, the two sold as compound \$1.96, and the two sold as maple flavor \$2.37. I think you will agree with me that this indicates a very unsatisfactory condition in the western trade.

The maple flavor stuff brings within 13 cents of the price of the pure. The compounds, which contain a portion of maple, even if it be but a very small one, sells on an average at \$1.96—or 41¢ per gallon less than the flavored goods that never saw a maple tree. This goes to show that while the ordinary man who understands English may know the meaning of the word flavor, he is not sufficiently conversant with the process of manufacture to be able to tell whether he is paying too much for his goods or not, or whether he is buying an article which is misrepresented.

WHAT SHOULD BE DONE

The new standard for maple syrup and sugar, as proclaimed at Ottawa recently, makes maple syrup illegal when containing more than 35 per cent. of water, and maple sugar 10 per cent. of water. This is by far the best work done by the Department at Ottawa, as it necessitates the maple producer to make a quality of syrup that has a more keeping quality, but this new standard fails to provide for protection to the producer as well as to the consumer against adulteration. What is required is an amendment to the Adulteration Act, making it illegal to use

HOW THE CITY LAND HOLDER TAXES US FARMERS

ARTICLE No. 11

Last week we illustrated the power that, under certain conditions, is involved in the ownership of land. We showed that while 100 men by their productive labor, were creating \$100,000 of wealth, another 10 men by owning the land on which the 100 worked, might have the power to take \$75,000 of that wealth from them. Power, exactly the same as that held by the 10 men, is possessed by those men who own the land in our cities.

THE FORCES THAT CREATE CITIES

In these modern days large cities are a necessity. We farmers ship to them the overplus products of our farms. Because of their central location, and of the railway facilities which cities possess, large business concerns find it necessary to be located in them. Abattoirs are established there to slaughter our live stock and resell the meat thus obtained. Mills are located there to grind our grain. Wholesale commission firms operate there in order that they may handle our eggs and butter, our poultry and cheese, to the best advantage. Dealers send out from their agents to buy our apples and hay and the various other products which we produce. This, however, is only part of the tale. Other firms find it necessary to be located there in order that they may the more readily manufacture those things that we require. Those concerns, great and small, which manufacture our harrows and plows, the boots and clothes we wear, the furniture we use, the books we read, the medicine we must have, the shingles that cover our roofs, the wire fences that protect our fields, are located there. These concerns employ thousands and scores of thousands of people. These people in turn create a new demand. In order that their wants may be met, grocery and butcher stores, and shops in which all manner of goods are retailed, spring into existence. A demand is established for the services of doctors, lawyers, ministers, engineers and professional and business men of all classes. It is thus that our modern cities are developed. But, as they develop new conditions are created. Because of the great congestion of people which results, where thousands are forced to live huddled together, the land becomes tremendously valuable. Where it may be worth \$1,000 an acre on the outskirts of a city, its value increases as the business centers are reached, until it becomes worth in the heart of a city like Toronto or Montreal, \$2,000,000 and \$4,000,000, and even \$6,000,000 an acre.

THE INFLUENCE THAT MAKES LAND VALUABLE

What makes this land so valuable? It is the fact that the men who own it have the same power to tax the rest of the community that the 10 men on the island possess. Let us illustrate. Suppose a man owns a quarter of an acre of land in the business section of Toronto. On it he erects an office building, like the Temple Building or the Traders' Bank. Because he is able to charge high rentals for the hundreds of offices it contains, his quarter of an acre of ground may return him in rentals \$50,000 to \$150,000 a year. Thus, like the 10 men on the island, he need never work. He can, if he choose, appoint an agent to collect his rents for him while he lives in idleness or travels in his automobile or private yacht around the world. But that is not all he earns. Year by year, as the population of the city grows, his land increases in value. During the past two years a sixth of an acre of land on the corner of King and Yonge streets, Toronto, increased in value from \$504,000 to \$800,000, at which figure it was recently sold. The increase in value in this case in less than two years was \$296,000, or at the rate of \$1,576,000 an acre. Thus a person owning such a piece of land need do nothing but take it easy while he rapidly becomes a millionaire. And as his land increases in value he increases the rents he charges. Thus year by year his income swells in volume.

HOW WE FARMERS HELP PAY THE BILLS

But, you ask, how does that affect us farmers? The answer is simple. It affects us grievously for the hundreds of thousands, yes millions of dollars these city land holders get every year in rentals, is taken out of us and the common people in the city, in a hundred different ways. This is how it is done. Let us suppose that 10 pieces of land in a city are occupied respectively by a produce merchant handling butter and eggs, a miller, a manufacturer of agricultural implements, a manufacturer of fencing material, a manufacturer of clothes, a butcher, a grocer, a doctor, a lawyer and a merchant. Let us suppose that these 10 men pay from \$1,000 to \$10,000 a year rental each, or a total of \$50,000 a year. This supposition is not unreasonable. Year by year, as the population of the surrounding country, and of the city increases, the business these men do increases in proportion. Their landlords notice this. Like the 10 men on the island they decide that the time has come for them to advance their rents. They advance them a total of \$10,000 a year. What happens? The produce merchant and the miller immediately strive to buy our butter, eggs and grain from us farmers for a little less, if possible, than they paid before, and they charge the grocers, the butchers, and the flour and feed men in the cities more for the butter, eggs and grain that they sell to them. The other manufacturers add a few cents or a dollar or so more to the cost of the agricultural implements, fencing material and clothes that they sell us. The butcher and the grocer charge the city consumer a little more for the butter, eggs and meat that they sell to them. The doctor and the lawyer advance their fees. The merchant increases his prices. Thus the public at large, including us farmers, as well as the working classes in the cities, help these middlemen to pay their increased rentals so that in turn they may enable the city landlords to swell their fortunes at the expense of all of us. This explains in part, also, why we farmers receive so little for our farm produce when the city consumer pays so much for it, and why some men become millionaires as though by magic while most of the rest of us work hard, it may be all our lives, and have little to show for our labor. Again, we ask, is it not time that we farmers (in Ontario especially) began to do our own thinking in regard to these matters? Is it not time that we backed up our farmers' organizations, which among other things are working to have land taxed according to its value, so that these city land lords, through the increased taxes they would have to pay, would pay back to the community at large the wealth which the community at large creates, but which they now appropriate? How long are we going to be content to be hewers of wood and drawers of water?

(Continued from page 3)

the word "Maple" or any of its derivatives on the labels of any package of maple syrup, unless the same be guaranteed absolutely pure, and not a mixture containing compounds or foreign sugars.

We would request every maple syrup and

sugar maker who reads this article to make it his business, in his own interest, to draw the attention of the Member of Parliament of his county to the situation, and persuade him to use his energetic endeavors to have the law amended, and thus protect both maker and consumer from the adulterator.

Timely Suggestions About Horses

Jas. Armstrong, Wellington Co., Ont.

We are starting already to get our horses ready for next spring's work. In fact, we started as soon as we put them in the stable last fall, but we are taking a little extra preparation just now. We do not expect our horses to stand in the stable from now to spring and then go on the land and do a good day's work. We are keeping them fairly busy hauling in wood, taking chop to the mill, etc., and if all kinds of work play out, we will just hitch them to a double sleigh and take the family for a drive. In all of my years with work horses I have never found a better method of getting ready for a spring's work than by starting to give lots of exercise in February and keeping it right to the first day's plowing.

We have another good reason too for adding to the exercise of our horses. By the time the horse has spent several months taking it easy in the stable with only light exercise it is beginning to acquire a few bad tricks. Additional exercise is all that is necessary to right this. I believe that cribbing, kicking and biting and much other viciousness is first learned by idle horses in need of exercise.

A point we horsemen should pay particular attention to just now is the matter of dry, clean bedding. Damp footing is the most prolific cause of cracked heels and thrush.

Many of us make the mistake of believing that when a horse is not working and the weather is cold the horse does not need grooming. The horse may not need grooming as frequently nor as carefully as during the warm season, but it needs it nevertheless, and our horses get a rub down every day and a good grooming two or three times a week. This is absolutely essential to the best health of the horse. The grooming will of course be reduced where the horses are blanketed regularly, but as our stables are fairly warm, the horses remain without blankets—except when standing outside.

The Farmer's Orchard—By a Farmer

R. B. Sloan, Huron Co., Ont.

An orchard on the ordinary Ontario farm is one of the most necessary and desirable additions to agricultural life. Many advantages are derived from an orchard, and there are really no disadvantages connected with the rearing of a fair-sized plantation of about 10 acres. This size is small enough for a 100-acre farm. Fruit is one of the most desirable articles of consumption. It is therefore most advantageous for us agriculturists to grow at least enough for home consumption. An orchard adds much to the attractiveness of our rural homes.

The main reason, however, why we should all grow some fruit is that this is one of the most remunerative branches of agriculture. Ten acres of good apple orchard to-day will sell for as much as many 100-acre farms and give as good returns on the investment.

Opinions differ as to the best varieties for an orchard; if of apples it is better to stay with the tried sorts, such as Spy, Baldwin, Greening and King, for winter varieties, and for fall apples, the Blenheim, Orange, Duchess and North Star are desirable varieties along with a few trees of earlier ones, such as Transparent, Astrachan and Sweet Bower, for home use only. The plantation should have enough plums, peaches (where they can be grown) and cherries, for the use of the family.

A few growers hold the opinion that spraying can be done when the wind is blowing and get good results. It is useless to spray against the wind.

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No. 11—Complete

No. 12—Complete

soda

No. 13—Complete

Potash

No. 14—Complete

phate

No. 15—(Check pl

Practical Experience with Fertilizers

Alfred Hutchinson, Wellington Co., Ont.

I have read with interest the various communications on the use of artificial fertilizers in recent issues of Farm and Dairy, especially that from Mr. G. E. Cottingham, under the heading, "Do Commercial Fertilizers Pay?" Having experimented considerably for four or five years, I am able to answer that they most certainly do pay, and pay well. But before attempting to prove this assertion there are one or two points in Mr. Cottingham's letter to which I should like to call attention.

He states that, "Last season I purchased two tons of fertilizer," etc. Farther on in his letter he says: "I have tried the commercial fertilizer game three times now . . . I have been foned each time and the last time worst of all, having spent, . . . \$15." I am not acquainted with any fertilizer that is sold at \$7.50 a ton, unless it be ground rock phosphate (untreated). I have not tried any of this material myself, but I understand that it must be applied the fall before, as it is very slow in its action, and the amount recommended is from 10 to 20 cwt. an acre.

MIXED FERTILIZER NOT ADVISABLE

I would also point out that the course taken by Mr. Cottingham is (apparently) the one that all authorities warn farmers not to take—the purchase of a specially prepared or ready mixed fertilizer. Assuming that it was a mixed fertilizer and not simply ground rock, at \$7.50 per ton there could not have been more than three to four cwt. of actual fertilizer in a whole ton of this mixture. The rest must have been composed of some filler. Speaking in round numbers, acid phosphate is worth \$1 and potash and nitrate of soda in the neighborhood of \$3 a cwt. in ton lots. It would be interesting to know just what this fertilizer was professed to be, and what percentage of phosphoric acid, potash and nitrogen there was supposed to be in it. If Mr. Cottingham would enlighten your readers on these points, we might have some clue as to why there were no results from its use.

My own experiments with fertilizers have covered considerable ground and embrace carefully measured plots and weighed yields—two years with potatoes, two years with turnips and one year with mangels. Also cruder experiments with fall wheat, rape, millet, mangels, turnips, etc. In the season of 1910 I planted 17 plots of potatoes; 14 of these were manured with various fertilizers or combinations, and the product carefully weighed; three plots received no fertilizer, being used for checks. Each plot was one-eighth of an acre, plots were in parallel rows side by side, and results are given in bushels per acre.

THE PROOF OF THE PYPING

No. 1—(Check plot) yielded at rate of 172 bus. an acre	
No. 2—Nitrate of Soda, applied at planting, yield	162½ bus.
No. 3—Nitrate of Soda, ½ at planting, ½ when plants appeared	180 bus.
No. 4—Barnyard manure (20 tons per acre)	239 bus.
No. 5—Potato fertilizer	304 bus.
No. 6—Royal Canadian (a prepared fertilizer)	160 bus.
No. 7—Muriate Potash	105 bus.
No. 8—Check plot	158 bus.
No. 9—Acid phosphate	170½ bus.
No. 10—Mixed fertilizer	192 bus.
No. 11—Complete fertilizer	182½ bus.
No. 12—Complete fertilizer, omitting nitrate of soda	180½ bus.
No. 13—Complete fertilizer, omitting Mur. Potash	180½ bus.
No. 14—Complete fertilizer, omitting Phosphate	117 bus.
No. 15—(Check plot)	122½ bus.

No. 16—Acid phosphate 186½ bus.
 No. 17—Acid phosphate 186½ bus.
 Nitrate of soda and muriate of potash were applied at the rate of 160 lbs. an acre, and acid phosphate, 320 lbs. an acre, in all cases except No. 10, in which one-third of these quantities were used. Plots 3 to 10, inclusive, were treated with the material furnished by the Experimental Union, O.A.C., Guelph, and the fertilizers would cost about \$3.50 to \$4 an acre in each case. No. 11 would cost approximately three times this amount, and 12, 13 and 14 just double. The application of acid phosphate cost \$4 an acre. Check plot No. 1 being an outside row, should not be considered, as it had an undue advantage on this account.

Looking at Nos. 11, 12, 13 and 14, it will be seen that the omission of nitrate of soda and of muriate of potash made practically no difference to the yield, but that the omission of phosphate reduced the yield to the level of the check plot where no fertilizer was used. In fact neither



Commercial Fertilizers made the Difference in this Corn

This illustration shows more clearly than words the value of potash fertilizer in stimulating the growth of sweet corn. Mr. Otto Herold, the experimenter, treats of soda, acid phosphate and muriate of potash than from the other plot the illustration be had it received no fertilizer whatever?

nitrate nor potash gave any returns whatever on this land. Now take plots 9, 11, 12, 13, 16 and 17. On all these phosphate was applied at the rate of 320 lbs. an acre, and the yield averages very close to 190 tons. Plots 14 and 15 received no phosphate and yielded practically 120 bus., showing a net increase of 70 bus. per acre from the use of acid phosphate, at a cost of 6c per bus. for the increased yield.

But you may say, does not barnyard manure do the best of all? Why not use that alone? Because the quantity is limited. We have just so much to work with, and it is necessary to give all our land a moderate dressing at certain intervals. All these plots received a coat of manure, at the rate of 10 to 12 loads an acre, and the fertilizers were extra. It follows, therefore, that plot No. 4 was manured at the rate of 30 to 35 tons an acre, a most extravagant application for a farmer who has no other source of supply than his own stables, and who wishes to cover all his arable land once in five years. For the grower who can get an unlimited quantity of barn manure, or who has no better use for it, it may be the best, although if it is intended to follow the potato crop with grain, it is doubtful economy, as the straw is almost sure to be too rank and go down before maturity.

(Concluded on page 15)

Facts About a Prize Winning Herd

Peter Arbogast & Sons, Perth Co., Ont.

Some 25 years ago we had a herd of cows commonly known as the "Shorthorn milking strain." These cows we bred to a Holstein bull and the heifers from the best cows were kept and Holstein sires have been used ever since. In this manner we bred up to the herd that secured first place in the Dairy Herd Competition conducted by the Dairymen's Association of Western Ontario. We now have over 40 females, all showing excellent dairy qualities. Two bulls are kept in order to avoid inbreeding. Celestia Scott's Mercina is a son of Tidy Abbecker Mercina Posh, whose seven nearest dams average 26.19 lbs. of butter in seven days. King Segis Walker, whose six nearest dams average over 25 lbs. of butter in seven days is the second. Both animals are fine individuals.

RECORD FOR THE MILKING PERIOD

No. of cow	MILK PER COW	No. of cow	MILK PER COW
1.	10,192	6.	11,345
2.	19,800	7.	12,102
3.	10,909	8.	12,622
4.	11,979	9.	12,610
5.	11,286	10.	10,920
			11,953
Average lbs. of milk a cow for full milking period 11,395			
Average lbs. of milk a cow for six months, May to Oct., 1911 7,972			

WATER AND FEEDING

We have no fixed rule to follow in feeding our herd of cows. Our main object is to feed for profit. The feeder must study each cow's likes and dislikes. For instance, we notice that some cows are very fond of alfalfa hay, while others probably prefer clover hay. Water is before the cattle at all times while they are in the stable. We have learned that no cow will do her best unless she has water when she wants it. Our cows always want water after having all they care to eat, and not sooner.

We feed the morning rations between five and six o'clock. Each cow gets from 25 to 30 lbs. of ensilage and one pound of meal to every six pounds of milk that they give. After this roots are fed, about 30 lbs. to each cow. They are then given what clover hay or alfalfa they will eat up clean. Evening rations are fed about four P.M., the same quantities being given. The meal consisted of oats, barley, bran and a little wheat. Cows are very fond of a mixed ration, and it also helps to fill the milk can.

SUPPLEMENTARY FEEDING

Last year the cows were turned out on pasture on the 20th of May. From then until the first of July we fed no meal or bran. Pastures then became short and dry, and in order to keep up the milk flow we started to feed ensilage and a little meal. This we continued to do until winter set in.

When milking was done regularly each day, and while possible each cow was milked by the same milker. About six years ago we joined the Black Creek Factory Cow Testing Association and since that time we have increased the production per cow each year and expect to increase it to an average of 12,000 lbs. a cow by careful breeding and feeding.

Spray at the right moment—especially for that spraying after the blossoms are well off the trees. Get to work at once. Even a day's delay may be too late.—A. W. Peart, Halton Co., Ont.



Peerless Fencing Protects

We build Peerless Post-and-Rail Fence strong enough to keep marauding animals out and sufficiently close to keep small fowl in.

A Real Fence That Gives Real Service

Built same as farm fence of good galvanized wire, protecting it against rust. Top and bottom No. 9 heavy, level steel wire—intermediate horizontal stays No. 12 to the rod. This makes an excellent, all-round, general purpose fence suitable for turning all classes of stock.

Agencies nearly everywhere. Live agents wanted in unassigned territory.

The Banwell Hoax Wire Fence Co., Ltd., Winnipeg, Manitoba, Hamilton, Ont.

A FINE THING in Your Favor when you wish to sell something through these columns of Farm and Dairy is that our advertising rates are within your reach. Only 90 cents per inch in all our charges, and it will take your message to nearly 15,000 possible buyers. Advertise in these columns and get big results at little cost. Send in your ad. to-day for next week.

ADV. DEPARTMENT FARM & DAIRY - PETERBORO, ONT.

THRASHING MACHINE

London Make (Chalenger), 2650, with Johnson Self-Feeder and Band Cutter, Wind Blower, Stewart Cutting Box and Chaff Blower. A very little care will put it in first class shape for good season's work. Reason for selling. Have dissolved partnership. \$300 will take it a bargain for someone.

CHR. I. ZEHR, R.R. No. 5 Tavistock, Ont.

FARM MANAGEMENT

Queries re Fertilizers

What kind of fertilizers would be most profitable for corn and roots? Our soil is sandy and gravelly. Also the chemicals better than the mixed fertilizers—H. L. J., Bromo Co., Que.

It is hard to give a positive answer to the question without knowing more of the exact conditions of soil and previous cropping. A mixture made of the following substances would answer very well: Nitrate of soda, 100 lbs. per acre; blood meal, 100 lbs.; muriate of potash, 200 lbs. superphosphate of lime, 200 lbs. The nitrate of soda should be withheld and not mixed with the others, and applied separately after the corn and roots are up.

The so-called chemical fertilizers may not be better than mixed fertilizers; that depends upon what materials are used in making the mixed fertilizer. The chemicals, such as nitrate of soda, muriate of potash, etc., are more concentrated, and they are constant in their solubility, so that in buying, the purchaser knows exactly what he is getting in both amount and solubility. This is true of the mixed fertilizers in this respect, but may not be true in the latter. As to how much less of the one can be applied, so definite answer can be given. For instance, 100 lbs. of nitrate of soda will contain over 15 per cent of nitrogen, whereas in a 4-5-10 fertilizer it would require nearly 400 lbs. of the material to supply the same amount of nitrogen. The potash salts are even more concentrated.

The fertilizers may be either drilled in or broadcasted, depending upon the machinery ready for the purpose.—Prof. R. Harcourt, O. A. C., Guelph, Ont.

Better Farming Special

The Ontario Provincial Department of Agriculture, in cooperation with the Canadian Pacific Railway, will run an agricultural instruction train over the C.P.R. in Ontario between Windsor and Montreal, including the Goderich and Owen Sound lines, stopping at 52 stations, and spending two and one-half hours at each place giving lectures and explaining exhibits.

A staff of from 10 to 15 lecturers and demonstrators will accompany the train throughout the trip. Members of the regular staff at the Agricultural College, district representatives of the Provincial Department of Agriculture, experienced dairy workers and other prominent farmers will give instruction. The program to be given at each place will be adapted to the needs and possibilities of the locality. The first hour will be taken up with lectures, and the balance of the time allowed for the inspection of the four baggage cars containing exhibits covering field husbandry, live stock raising, dairying, beef production, fruit growing, poultry raising, bee keeping, fertilizers, feeds, concrete work, etc.

The train will consist of nine coaches, four equipped with dining, rest and demonstrative material, three to be used for lecturing purposes, and two for the dining and sleeping accommodation of the staff and train crew.

The work begins February 26 and ends March 16, 1912. Every farmer will find something of interest and benefit both in the exhibits and lectures. Lectures and demonstrations of special interest to women, girls and boys will be provided.

Canadian Seed Growers Convene

It was decided at the annual meeting of the Canadian Seed Growers' Association held in Ottawa, that in the future there shall be only two classes of seed handled by Association members. "Elite Stock Seed" shall be the term used to designate the seed produced on the seed plots selected with hand selected seed. "Registered Seed" shall be the seed grown on the part of the Association.

Another important departure in the work will be that in future all certified seed shall be sealed in bags by some official approved by the Association before the sacks leave the premises of the grower.

Space does not permit a report of the splendid speeches given at the meeting. Prominent among the speakers was Hon. Martin Burrell, Mr. C. C. James and Dr. J. W. Robertson, who was so largely instrumental in the organization of the C.S.G.A. Other speakers who gave instructive addresses were Prof. Kinck Macdonald, College, J. H. Grisdale, G. H. Clark, Rufus W. Stinson, Boston, Mass., and Dr. C. E. Saunders, Ceresist, C. F., Ottawa. Dr. J. W. Robertson was re-elected president and Mr. L. H. Newman, secretary.

A whip is a poor thing to inspire a frightened horse with a sense of safety.

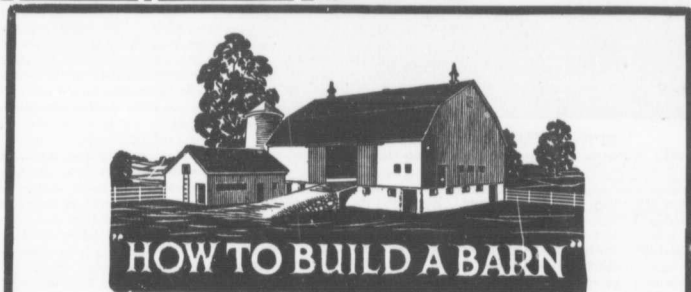
Kimball's Dairy Farmer says that the farmer who takes the best care of his cows usually knows what each cow is doing, and likewise the farmer who knows what each cow is doing usually gives his cows the best care.

Caldwell's Molasses Meal

Makes More Milk

Give your cows three to five pounds of Molasses Meal daily in place of an equal amount of ordinary food. Your cows will be healthier and will yield you more profits. Get our booklet explaining why Molasses Meal has such wonderful feeding value. Also ask for direct from the mill prices.

Caldwell Feed Co., Ltd. Dundas, Ont.



HOW TO BUILD A BARN

Ever notice the construction of an old barn? It makes you smile to think of the enormous timbers that were used, and you wonder that the barn did not topple over of its own weight. Ever notice the construction of your own barn? Is it up to the modern standard? Could a neighbor put up a barn that would make yours look years behind the times?

How about your new barn? Have you gone into the matter so fully that ten

years from now you will be sorry you did not use a better form of construction? Will it be lightning proof, fireproof, have sufficient ventilation? How much room will you allow for each horse, cow, or sheep? Where is the best place to keep roots? How will you arrange hay and ensilage trucks so as to allow for easy mixing and feeding?

No matter how large or small your barn requirements are, no matter for what purpose you require a barn, you will find full particulars (with plans, specifications and minute descriptions) given for that barn in the new book, "How to Build a Barn." This book is free for the asking. It is right up to the minute, and in addition to plans and specifications, has many new points about barns that will be full of interest for any farmer. Write for it to-day—a post card with your name and address will do—or fill in coupon and mail it.

Send me your book on Barns.

THE GALT ART METAL CO., Limited

151-155 STONE ROAD, GALT, ONT.

BRANCHES—General Contracting Supply Co., Halifax, N.S.; Entry & Co., St. John, N.B.; Cheneaux & Sons, Fredericton, N.B.; J. E. Lachance, Ltd., 213 St. Paul St., Quebec, Que.; Wm. Gray & Sons, Campbell, Ltd., 183 St. Paul St., Montreal, Que.; Montreal & Dist. Factory, Montpelier, P.E.I.; Fife Hardware Co., Fort Williams, Ont.; Galt Art Metal Co., Ltd., 479 Henry Ave., Winnipeg, Man.; Gorman, Clancy & Girdley, Ltd., Chicago, Ill.; Gorman, Clancy & Girdley, Ltd., Edmonton, Alta.; D. E. Merritt, 714 Richard St., Vancouver, B.C.

The F

The Feed use of on treated & tions, or f All quantities attention.

Best

Please give best feeds for working such as are fed Clover hay or berate amount and corn and make a suitable silage may be since any sup feeds is likely effect upon the animals. Any one that proportionately required from require practical working oxen. Any one that beef after the he fattened quite the proportion

Grain

An wintering in foot blood out. The do but the light work in exercise. In the of clover hay, straw with mares and three quarts to the shredded corn, spring work in corn and oats, or World this to W. H., Lambton. The feed that right for work to be recoum mares. As spr mares should mares, and feeds for prep rather expens points of oats will give better oats and it is month or two mares go on g might be given results. There in each feeding should never bulky food.

The ration t corn and oats mares, and we similar to the the amo the size of a they are doing.

Report of

In Great Brit tively insignif 31,852,777 shee much greater a 000 head. Fo commissioners a minion Govern den and Mr. W investigating in of the United States and Car nation that w veloping the shada. Their rep lished giving th investigations. In their repo point out that much territory agriculture, but for the summer after investigati roughly in three not see why the be in the backw 's in Canada.

The Feeders' Corner

The Feeders' Corner is for the use of our subscribers. Any inquiries are invited on questions, or send items of interest. All questions will receive prompt attention.

Best Feed for Oxen

Please give me information as to the best feeds for working oxen.—A. L.
Working oxen do best upon feeds such as are fed to heavy milking cows. Clover hay or good mixed hay, a moderate amount of straw, with oat chop and corn and bran in equal parts make a suitable ration. Roots or ensilage may be fed, but in moderation, since any superabundance of laxative feeds is likely to have an injurious effect upon the enduring qualities of the animals. Meal should be fed proportionately to the amount of work required from the oxen. Idle oxen require practically none, heavy working oxen, fairly large rations. Any oxen that it is desired to sell for beef after the work is completed may be fattened quite readily by increasing the proportion of meal.—J. H. G.

Grain Food for Mares

An wintering a span of young heavy mares in foal, a driver and two-year-old blood colt. The mares have nothing to do but the light farm work, and when not working are turned in the yard for exercise. In the morning we give a feed of clover hay, at noon bright clean oat straw with four quarts of oats to the mares and three to the driver, and two quarts to the colt. At night they get shredded corn stover. When starting spring work I am planning to mix shelled corn and oats, one of corn to two of oats. Would this be too strong for the mares?—W. N. H., Lambton Co., Ont.

The feed that you are giving is all right for work horses, but is hardly to be recommended for pregnant mares. As spring comes on, the grain ration should be changed considerably. Oats and bran are the standard feeds for pregnant mares. Bran is rather expensive just now, but two pounds of oats and one pound of bran will give better results than three of oats and it is cheaper. For the last month or two in the spring before the mares go on grass, a few boiled oats might be given once a day with good results. There should be a little salt in each feeding. Pregnant mares should never be gorged with coarse bulky food.

The ration that you propose of corn and oats is hardly suited to the mares, and we would suggest a ration similar to the one that we have outlined, the amount fed depending on the size of the mares and the work they are doing.

Report of the Sheep Industry

In Great Britain, with its comparatively insignificant area, there are 31,852,727 sheep. In Canada, with a much greater area, there are 12,103,000 head. For several months two commissioners appointed by the Dominion Government, Mr. W. A. Dryden and Mr. W. T. Ritch, have been investigating into the sheep industry of the United Kingdom, the United States and Canada to gather information that will be of value in developing the sheep industry in Canada. Their report has not been published giving the results of their investigations.

In their report the commissioners point out that in Canada there is much territory that is not used for agriculture, but is excellently adapted for the summer feeding of sheep, and after investigating the subject thoroughly in three countries they cannot see why sheep husbandry should be in the backward condition that it is in Canada. They state that we

should not remain satisfied until statistics show a return of at least 10 times the number of sheep as given by the present estimate. Among the recommendations made by the commission for the advancement of the sheep industry of Canada are: That the educational facilities offered by the agricultural colleges be made use of to interest students in sheep and wool; that demonstration farms be established in various parts of the Dominion; the further distribution in isolated districts of pure bred sheep; cooperative marketing of sheep and lambs; the enactment and rigorous enforcement of dog legislation; and that special assistance be offered to the sheep breeders' associations to enable them to forward experimental consignments of wool to British markets.

Value of Butter Milk

What is the value of buttermilk a cent. for feeding purposes at the prevailing prices of mill feeds, and to what classes of stock can it be fed?—A. C. Rome Co., Que.

Buttermilk is of equal feeding value with skim-milk, provided that no water has been added to it in the process of manufacture. The actual value of buttermilk per cent. for feed depends on the amount fed in proportion to the grain used. For hogs if one to three pounds of milk were fed to each pound of meal it would have a value at present of about 35 cts. a cent.; if seven to nine pounds of milk were fed per pound of meal the value would be 20 cts., or an average value of 28 to 30 cts. a cent.

The largest use of buttermilk is for feeding pigs. It can also be used to good advantage with poultry. Only in the hands of the skillful feeder can buttermilk be used successfully in calf-rearing.

A dairy cow is a highly organized beast. She is easily spoiled by rough handling.—A. K. Lunn, Huron Co., Ont.

YOUR CROPS can get more nitrogen out of one single sack of

Nitrate of Soda

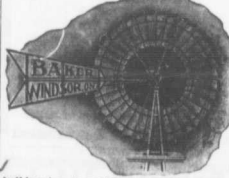
than out of a two-horse wagon load of manure. The Nitrogen in Chilean Nitrate of Soda is 100% available and is immediately so the day you apply it! It produces

More powerful growth and healthier, bigger plants. Easy to handle, clean, cheap, odorless, free from fillers.

Write to us for valuable free literature on the crops that mean a living to you. A post card will bring it to you.

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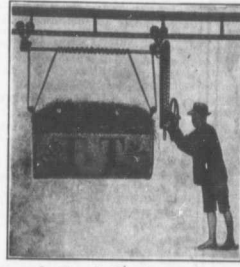
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Baker mills have no freak features to exploit. The man who buys this mill makes a good investment. He does not take a chance. The quality, efficiency and reliability of the "BAKER" are "known quantities" in keeping with our past record of over 30 years. We invite honest comparison in every way. The wheel is built on a hub revolved on a long stationary steel spindle. As a result less friction. It has a large number of small sails without rivets. The small sails develop the full power of the wind. The engine is so constructed that the gears cannot wear out of mesh, and is provided with a cast iron shield, thus protecting same from ice and sleet. We make a full line of steel towers, galvanised steel tanks, pumps gasoline engines, etc. Write for catalogue.

THE HELLER-ALLER CO. Windsor, Ontario

Making Barn Work Easy!



Cleaning stables is hard work. No work about the farm is heavier or more disagreeable. It is especially so through the snow in winter and the mud in spring.

Why not do it with a BT Litter Carrier?

One thousand lbs. of manure or four big barrow loads can be taken at one trip and the beauty about it is that a boy can handle it. With a level overhead steel track to run on, it is easy to push out big loads no matter what condition the yard is in. After the manure is filled into a BT Carrier it can be windlassed up to dump into a wagon or sleigh or so with one handling it can be taken right to the field.

A Good Paying Investment

A BT Litter Carrier will move more than out in half the time taken in cleaning the stable. It will turn the hardest kind of work into a boy's job. With it, it is easy to keep the manure a good distance from the barn, so that the ammonia fumes arising out of the manure will not rot the sides and sills of the barn or near it, to say nothing of injuring the health of the animals. It pays to get the manure well away from the barn, and with a BT Litter Carrier is the way to do it. Good barn equipment makes it easier to get and to keep good hired men. We are making a special offer now. Write us and we will be pleased to give you all particulars.

BEATTY BROS. FERGUS, ONT.

We also make Hay Carriers and Cow Stalls.

Let us Give You a Price

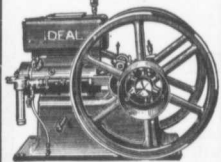
A Litter Carrier will add very little to the cost of a good barn. When once erected it is practically a permanent investment, for, always running on a good level track, it should last for 50 years. Fill out the coupon and get particulars of our special offer.

BEATTY BROS., Fergus, Ont. (1812)

Kindly send me free your book on litter carrier and prices.
I will need about..... ft. of track
And expect to put in a Litter Carrier about.....
Do you need a Hay Track?.....
NAME.....
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GASOLINE ENGINES

11 to 50 H.P.
Stationary Mounted and Traction



WINDMILLS

Grain Grinders, Water Hoists, Steel Saw Frames, Pumps, Tanks, Etc.
COOLD, SHAPLEY & MUIR CO., LTD.
Brantford Winnipeg Calgary

POULTRY YARD

Advantages of Day-old Chicks

The business of shipping day-old chicks is fast taking the place of sending out eggs for hatching, and will, I believe, in time almost entirely eliminate the hatching egg trade. I will draw attention first to the advantages obtained by the purchaser.

Nature has provided sufficient nourishment for the newly hatched chick for the first 72 hours of its existence, and the very fact of the chicks having to travel a considerable distance is an advantage rather than a detriment, as people who are not familiar with poultry raising are very apt to start feeding chicks too soon, thus disturbing their very sensitive digestive organs. It is more satisfactory to order a stated number of

chicks and receive them practically at the moment you desire, than to purchase eggs, which one has to get at least three weeks sooner, and then have the trouble and expense of either caring for one or more clucking hens or an incubator, when, unless they have had a reasonable amount of experience, the results are very apt to be disappointing. The prices for day-old chicks are very little in advance of those for eggs, and this alone would recommend them very strongly to the intending purchaser.

The day-old chick business likewise has its advantages for the vendor. We take it for granted that the hatcher has the necessary equipment and incubator space for a considerable number of eggs. The fact that he is in a position to start his eggs when they are absolutely fresh goes a long way towards giving him a better hatch than if the eggs have to be shipped by express and encounter a certain amount of rough handling before being set. Then too the eggs may reach their destination in good shape, but through being set under an indifferent clucker or in an incubator not thoroughly understood by the operator, a poor hatch may result; the blame invariably falls on the vendor and immediately leads to more or less strained relations between him and his customer, which is a thing to be avoided if possible. And the most practicable way to avoid trouble with one's customers, I have found, is to ship them the chickens instead of the eggs.

A few Don'ts for Duckmen

Don't spend all your money in buying eggs or breeders. Save enough for feed and buildings.

Don't overfeed at any time. Don't let young ducks get wet, but give them all the water they can drink.

Don't frighten young Runners or chase them around the yards.

Don't change your feed on laying ducks if they lay well a whole season. Don't mate more than six ducks to a drake.

Don't keep your duck eggs four to six weeks and think they will hatch well.

The above are a few of the don'ts that L. D. Yoder gives in his booklet called Indian Runner duck culture.

It is not necessary to provide nests for ducks. They will not lay in them if you do. They prefer to scoop out a nest in the litter.

Dairying the Most Progressive

(Continued from page 2)

live stock farming in maintaining crop yields was given by Prof. M. Canning, of the Nova Scotia. Last season was a period of drought, and it was a matter of universal comment in that province that while on most farms crops were almost a failure, live stock farmers had crops that were up to the average.

HOW ABOUT ONTARIO?

Mr. J. H. Grisdale, Director of Experimental Farms, summarized the live stock situation in Ontario. "The hunting ground of the rest of the live stock men of Canada," as he characterized the province. He believed that the live stock industry in Ontario was in a healthy condition. The horse industry is making particular progress. In the past 10 years the number of horses had increased 17 per cent and the average price 80 per cent. Beef cattle are just about holding their own. Dairy cattle are increasing in number and their value has doubled in a decade. Sheep are declining and swine are holding their own. In pure bred cattle, Ontario has made progress in number of animals, number of breeders and in prices obtained.

"Saskatchewan," said P. M. Brett,

Live Stock Commissioner for that province, "is looked on as the great wheat province. We must have a big live stock industry to keep up that wheat and maintain soil fertility." Mr. Brett pointed out that while the amount of live stock in Saskatchewan had doubled and trebled in the last five years, the industry had not progressed to the same extent as had the growing of wheat.

B.C. AN IMPORTER OF PRODUCE
Dr. S. F. Tolmie, of British Columbia, predicted that his province would be a consumer of agricultural produce rather than a producer for many years to come. Pure bred stock are making progress, particularly the dairy cattle. This speaker strongly advocated that an experimental farm should be established in that range country to experiment with forage

(Continued on page 11)

Exhaustion of Soil Fertility

Extract from "Artificial Fertilizers, Their Nature and Use," by B. Leslie Emslie, C.D.A. (Glas.), P.A.S.I., F.C.S.

"The fact remains that resource must be had to artificial fertilizers if the requirements of the soil for all the elements of fertility are to be satisfied, and the sooner a farmer becomes cognizant of this, the less trouble will be have in restoring a runout soil.

"Last fall the writer happened to be discussing the fertilizer question with a farmer, who owns a farm of a very light, sandy-loam character, when the latter made the remark that if it were not for artificial fertilizers, his land would not be worth farming.

"The same day, in conversation with another farmer, he happened to inquire whether the farmer used artificial fertilizers, to which question the latter replied to the effect that there was too little money to be made at farming to warrant its expenditure for fertilizers. Here are two different opinions, the one made by a man who had used fertilizers and proved their value, and the other by a man who knew nothing of the benefits to be derived from a judicious use of fertilizers, and who at the same time made the statement that farming was unprofitable."

Free copies of this and other bulletins, dealing with the important subject of Fertilizing, may be obtained by application to
GERMAN POTASH SYNDICATE,
1102-08-06 Temple Bldg.,
Toronto, Ont.

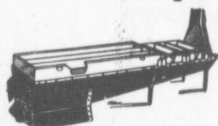
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WELLAND COUNTY, ONT.

The Champion Evaporator

Makes the Highest Quality of Maple Products



At the recent Exhibitions held at Quebec, Sherbrooke and Ottawa there were forty prizes awarded on Maple Syrup and Sugar and the users of the "Champion" captured thirty-nine. This speaks for itself.

"Champion" Evaporator

Write for free booklet.

The Grimm Mfg. Co., Ltd., 58 Wellington St., Montreal, Que.

GOVERNMENT BECAME

It's wise to decide that you need an engine. But don't spoil your good intentions by buying a cheap one. Don't be blinded by a low price or by wild claims. Go slow and be sure. Buy an engine that has proved its worth, from a concern that has proved its integrity. You can't afford to make a mistake—it's much costlier than the price of an engine.

I H C Gasoline Engines

are in use on thousands of farms throughout the country, running the many farm machines, such as the cream separator, churn, feed grinder, pump, fanning mill, threshing machine, electric light plant, etc. They guarantee you reliable power for every requirement at a surprisingly small cost.

I H C gasoline engines are marvels of simplicity, strength, economy, reliability, and durability. They run steadily and smoothly, year in and year out. They make and save money every time they are used, and, if by accident, you should need repairs, you can get them promptly with little trouble or delay from the I H C dealer in your locality.

Don't you think it would pay you to investigate the I H C engine before you buy any? They are made in so many sizes and styles that you can select just the right size and style for your work: Vertical type—2, 3, 25, and 35-H. P.; horizontal—10 to 50-H. P.; semi-portable—1 to 8-H. P.; portable—1 to 25-H. P.; traction—12 to 45-H. P.; sawing, pumping, spraying, grinding, cutting, etc.

Built to operate on gas, gasoline, kerosene, distillate, or alcohol—air-cooled or water-cooled. Ask the I H C local dealer for catalogue and all information, or, if you prefer, write nearest branch house.

CANADIAN BRANCHES: International Harvester Company of America at Brantford, Ontario, Hamilton, Ontario, London, Ontario, Toronto, Ontario, St. Catharines, Ontario, St. John, New Brunswick, and Yorkton, Saskatchewan, St. John, New Brunswick, and Yorkton, Saskatchewan.

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The purpose of this Bureau is to furnish farmers with information on better farming. If you have any query concerning soils, crops, pests, fertilizers, etc., write to the I H C Service Bureau and learn what our experts and others have to say about your problem.

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HORTICULTURE

Dominion Fruit Conference

Far-reaching results should attend the third Dominion conference of fruit growers that was held in St. Patrick's Hall, Ottawa, Feb. 14th to 16th. The conference was called by the Dominion Minister of Agriculture, Honorable Martin Burrell. It was thoroughly representative in nature, delegates being in attendance from all the provinces of Canada. The various meetings were buoyant with optimism and breathed a national spirit that was very apparent. Every delegate present was charged with the conviction that the fruit growers of his province are on the eve of a wonderful development. The confidence in the future of the in-

dustry this feeling inspired had its counterpart in the manifestation of a national spirit which led all the delegates to evince a keen desire that the fruit growers of the various provinces shall work with one another and as far as possible under uniform laws pertaining to the handling and marketing of their fruit.

FINE FRUIT EXHIBIT

A feature of the conference was a splendid display comprising about 150 boxes of apples gathered from each of the fruit growing provinces of Canada and including also several boxes of fruit from the famous Hood River District in Oregon, the State of Washington, and the State of Virginia. In addition the Dominion Experimental Farm at Ottawa had an excellent exhibit of Faneuse apples and an attractive selection of potato fruit representing various seedlings originated at the Central Experimental Farm, Ottawa. The fruit from the different provinces was richly colored, high grade in quality and well packed.

A feature of the conference was provided by the attendance of His Royal Highness the Duke of Connaught, Governor General of Canada, at one of the afternoon sessions and of Right Honorable R. L. Borden, Prime Minister of Canada, at one of the evening sessions, both of whom spoke. Mr. Borden assured the delegates that it is the intention of the Dominion government to promote the cause of agriculture in every possible way.

Owing to the limited time at the disposal of the delegates and the numerous important matters that had to be discussed it was found necessary to conduct a great deal of business of the conference in committee meetings. This permitted much more work being accomplished than would otherwise have been possible. Nevertheless there were considerable number of lively preliminary discussions as well as discussions of the committee reports, all of which were conducted in the best of good spirit and which were productive of definite beneficial results.

THE RESOLUTIONS

The conference resulted in the passing of a number of important resolutions, most of which it is hoped will be crystallized into legislation by the Dominion government. The important resolutions passed and the opinions reached included the following:

To form a National Fruit Growers' Association. Instructions were given to the officers of this association to appoint a transportation committee of three members to look after the interests of the fruit growers with the railway company and power was given to the committee to appoint an expert transportation agent to investigate claims and railway and express rates and other similar matters.

It was decided to ask the Dominion government to make the standard apple box now used for the export trade the standard box for domestic use also. There being considerable differences between the various most suitable shapes for the other various box packages of fruit it was decided to defer making recommendations concerning these in order that the various fruit growers' organizations may investigate the matter.

The Dominion government was requested to issue forms to basket manufacturers so as to ensure a uniform size of fruit baskets and to provide two standards for the present, one the 96 quart barrel commonly used in Nova Scotia and the other the 112 quart barrel commonly used in Ontario.

The advisability of holding National Apple Shows was conceded and the

Dominion government was asked to appropriate \$10,000 towards the expense of the next National Show provided at least \$20,000 in prizes is offered by the promoters.

The government was requested to have daily market prices for fruit compiled from their commercial agents in Europe and published in the daily papers in all provinces of the Dominion during the shipping season.

The Minister of Agriculture reminded that the great interest of Canada are now of sufficient importance to warrant the placing of the fruit division on the same basis as the seed and live stock divisions with a commissioner appointed in charge. The sufficient inspection at point of entry of imported deciduous fruit was urged so as to ensure its being marketed under the conditions of the Sale and Inspection Act.

THE NUMBER OF APPLES

The amendment of the Fruit Marks Act was urged in order that it be made compulsory to mark, on the outside of the box, the number of apples contained therein.

The Department of Agriculture was urged to divide the fruit growing provinces into suitable districts with a permanent and capable fruit inspector and instructor in each district so as to insure to the greatest possible extent inspection at the point of shipment.

MINIMUM SIZE FOR APPLES

The amendment of Section 321, clauses two and three of the Inspection and Sales Act, was urged in order that a minimum size of apples packed in barrels should be as follows: The Faneuses, 2-3 inches for No. 1 and two inches for No. 2; Golden Russets and kindred sized varieties, No. 1, 2-1/2 inches; No. 2, 2-1-8 inches; Baldwin's, Spys, Greenings, Ribstone and kindred sized varieties, No. 1, 2-1-2 inches; No. 2, 2-1-4 inches; Kings, Blenheim, Wolf River and kindred varieties, No. 1, 2-3-4 inches; No. 2, 2-1-2 inches.

Our Front Cover Illustration

The names of the officers of the Dominion Grange, as illustrated on the front cover of Farm and Dairy this week, are as follows: Front row, left to right, Miss Hattie Robinson, St. Thomas, Ceres; Miss Mary Thomas, Newbridge, Lady Assistant Steward; Henry Glendinning, Manilla; Master; Miss A. Robinson, St. Thomas, Flora; Miss Eva Wardell, St. Thomas, Pomona; back row, left to right, J. J. Morrison, Arthur, Secretary; W. C. Good, Brantford, Over-see; John Stewart, Crystal Rock, Steward; N. E. Burton, St. Thomas, Past Master; J. C. Smeal, Oakdale, Lecturer.

Advertising pays. Since I withdrew my advertisement, I am answered only six inquiries, and in answer to the first two sold my two bulls at a reasonably good figure. — Wm. J. Bald, Sebringville, Ont.

How to Completely Cure

nearly 100 diseases of farm stock is told in FLEMING'S VETERINARY POCKET VETERINARY ADVISER. Write for this indexed, illustrated 96 page book—it's free.

Tells how to cure the dreaded **LUMP JAW** in a safe, quick, easy way. The first successful cure—the one that cures the highest percentage of cases, and the most one is Fleming's Lump Jaw Cure. It is or any other Fleming's Veterinary Adviser. Write for yours. We will refund your money. FLEMING BROS., Chemists, 83 Church St., Toronto.

BUY BABY CHICKS Save money, time, worry. Thorough bred laying strains, they grow, they pay. Safe delivery guaranteed. Circulars. Brant Postulry Yards, Brantford, Ont.

Why Not Sell It?

Have you any surplus LIVE STOCK for which you want a buyer? Do you want to SELL YOUR FARM? Have you an INCUBATOR you wish to EXCHANGE for CASH? A BICYCLE you want to sell? POULTRY for which you want a good price? OR EGGS FOR HATCHING to sell? Remember YOU CAN GET next nearly LIVE POSSIBLE BUYERS of what you have for sale AT A VERY LOW COST by placing your advertisement in the columns of Farm and Dairy. Our rate is within your reach. We do not discriminate against the smaller advertisers, and WE GIVE YOU FULL ADVANTAGE. A VERY LOW RATE OF ONLY 8 CENTS PER INCH.

WISCONSIN FARM AND DAIRY, PETERBORO, ONTARIO, to-day, sending in your advertisement, and take this progressive, satisfactory way of getting the profitable market you desire for what you have to sell.

O. A. C. No. 21

Choice Seed Barley \$1.10 PER BUSHEL. Bags 25c each extra. Money must accompany order.

J. J. Parsons Jarvis, Ont.

WANTED

A Competent Man to take charge of garden and small farm about 12 acres, situated three miles from Macdonald College. — Anne De Bellevue, Que. Free house, with water and heating, with references, stating wages expected, to Box 399, Farm and Dairy, Peterboro.

EGGS & BITTER

Ship your New Laid Eggs and Fresh Dairy Butter to us. **PROMPT RETURNS** EGG CASES SUPPLIED

Established 1854 **The Wm. DAVIES Co. Ltd** TORONTO

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Over 70 sizes and styles, for drilling either deep or shallow wells in any kind of soil or rock. Mounted on wheels or on skids. With engines or horse power. Strong, simple and durable. Any machine can operate them easily. Send for catalog WILLIAMS BROS., ITRACA, N.Y.

NEWMERFUGA

The best and most effective remedy for Bots and other worms in horses. (Guaranteed by the Farmers' Horse Remedy Co., under the name of Newmerfuga Act, June 28, 1906, Serial No. 1371.) It is guaranteed to kill and bring from the body dead in from 18 to 24 hours all pin worms and bots. It is absolutely harmless and can be given to mares in foal before the eighth month of pregnancy. Horse owners have written us Newmerfuga has removed between 500 and 800 bots and worms from a single horse. All animal whose stomach is full of worms cannot get fat or keep being obstinate. Send your order today. New or old bottles, \$1.00 6 capsules, \$1.25; 12 capsules, \$1.50 Farmers' Horse Remedy Co., Dept. A-8 207 - 7th St., Milwaukee, Wisconsin.

FOR SALE AND WANT ADVERTISING

BARRED PLYMOUTH ROCKS—High grade cockerels and pullets for sale at moderate price. Satisfaction guaranteed.—Leslie Kerns, Freeman, Ont.

WANTED—First Class Buttermaker, for Creamery. References required. Six months' run guaranteed. \$15. Applying stating salary, to The Saskatchewan Creamery Co., Annabell, Sask.

FOR SALE—Iron pipe, Pulleys, Belting, Sails, Chain Wire, Pendants, Iron Nails, etc., all sizes, very cheap. Send for catalog what you want. The Imperial Trade and Metal Co., Dept. F.D., Queen Street, Montreal.

Easy For the Boy

A LOUDEN LITTER CARRIER changes barn drudgery into child's play. With powerful worm gear (an exclusive Louden feature) 1 pound pull on the chain lifts 40 pounds in box—a boy can hold half a ton. Raises and lowers any distance up to 25 feet. Stands where put; can't fall. Lifts the box, raises it and gives it a shove. It carries the load out of the barn to manure spreader or litter box, wherever you want it; dumps load automatically and returns to you.

The Louden Way is the way to Economy and Profit in the barn. Over 40 years experience in fitting barns is at your service for the asking. We make full line of stalls and stanchions, hay tools and door hangers. Write for catalog of Barn Equipment. **Louden Machinery Co.**, Dept. 16 Guelph, Ontario

Holstein Breeders' Doings

At the annual meeting of the Canadian Holstein-Friesian Cattle Breeders' Association held in Toronto recently the report of the secretary showed that during the year 18 bulls were admitted to the Record of Merit. There are now 1,171 cows that have been accepted and 71 bulls.

In the Record of Performance 222 cows have been accepted. Some of the records made have been especially good ones. Lulu Kevens, owned by E. B. Mallory, made 17.28 lbs. fat in 7

days and 67.50 lbs. in 30 days at 2 years.

The number of registrations showed a great increase. They were as follows:

Animals registered during year, 5,924	Registrations, animals under 1 year (members)	4,422
Registrations, animals under 1 year (non-members)	721	
Registrations, animals over 1 year (members)	646	
Registrations, animals over 1 year (non-members)	97	

Registrations, imported cows	5
Registrations, imported bulls	2
Import certificates, cows	70
Import certificates, bulls	31
Transfers, total for year	5,324
Transfers, for members	3,963
Transfers, for non-members	592
Transfers, after 90 days after sale	769
Registration of farm names	24
Total bulls now registered	12,936
Total cows now registered	18,961
Total bulls now transferred	11,043
Total cows now transferred	15,668

During the discussion of the suggestion that the Association should have its records handled by the National Records Board, as all the other live stock associations do. J. B. Brethour of Burford, who is acquainted with the workings of the National Records Board, was asked to explain the proposal of uniting with that board more fully. He made it clear that should the Association unite with the board it would continue to have absolute control of all its records, and that there was nothing to prevent it from standardizing its records with those of the United States Association should it so desire. All that would be involved would be that the records would be handled in Ottawa by trained clerks who would follow the rules laid down by the Association. The money received would be credited to the Association and deposited in the bank to its account. Mr. Brethour claimed that all the other associations that are handling their records through the National Record Board are well satisfied.

GRANTS TO FAIRS

The following grants to fairs were made:

Toronto, \$300; Sherbrooke, \$150; Calgary, Winnipeg, Lacombe, Ottawa, Victoria, New Westminster, \$100 each; St. John, Halifax, Brandon, \$75 each; Regina, Edmonton, Quebec, \$50 each.

Winter Fairs—Guelph, \$450; Amherst, \$225; Ottawa, \$450. This is \$225 more than was given last year.

It was decided to vote a special prize of \$50 to any Holstein cow that wins the grand championship over all breeds at the 1912 Fair.

Grants of \$25 each were voted to Sherbrooke, Que., Woodstock, Ont., and Charlottetown, P.E.I., for milk tests.

RECORD ANIMALS

The report of the secretary mentioned the following excellent records by Holstein cattle that had been made during the year:

Helton De Kol, owned by E. Laidlaw & Sons, now holds the Canadian record for 7 and 30 days, having produced 25.23 lbs. fat in 7 days and 102.86 lbs. fat in 30 days as a 6-year-old.

Jenny Bonerges Ormsby made 24.61 lbs. fat in 7 days and 100.35 lbs. in 30 days at 4 years and is the 4-year-old champion. Ledy Pietertje Cany is the champion 3-year-old, having produced 21.14 lbs. fat in 7 days and 94.39 lbs. fat in 30 days. She is owned by Mary A. Steve. Cany was Queen De Kol, owned by J. M. Steve, made 20.71 lbs. fat in 7 days as a 3-year-old.

(Continued on page 15)

Look to Your Roofs

Of all men whose possessions are endangered by the risk of fire, the farmer is usually most lacking in precaution against damage. Insurance rates on farm property are high—though not too high considering the risk, for once a fire gains headway on a farm all the buildings burn, as a rule.

Yet there is a cheap and efficient way to safeguard against the risk of fire spreading from farm buildings to farm buildings; and that safeguard is found by roofing with Preston Safe Lock Shingles. These heavy sheets of galvanized metal protect the building they cover against the possibility of fire spreading from chimneys or sparks dropping on the roof; and they also are a sure protection against lightning damage. The Metal Shingle & Siding Company, of Preston, Ont., who make this perfect roof, will give a Guarantee Bond against lightning damage to buildings so roofed.

Dairying, (Continued)

plants, pumping for Alberta, of Edmonton, who was on the horses are now small farmers. ing had had a on the beef in 1911 cattle wo from the east shop and swine The live stock was numerous manner by Miss cultural editor of Press. She is ranching and a for the cattle tie with the sm

If there is an Dominion that over to dairying great increase in A. Couture claim great good to the milking Shorthorn away in the east. The almost 100 shires. Recent has been gaini Horse breeding but sheep have glected.

THE PRESIDENT Mr. Robert N occupied the ch address he called questions of leaf problems in terprovincial terculosis. Hon. M ster of Agriculture told of some of the vines in agricul

SHORTAGE OF Mr. John Gar the fat stock ment of a great mome of the future. Pa not breeding or number of leaf was not as good believed that the largely overcome milking quality cow. "I believe," best cow for our deep bodied, good bred Shorthorn." He loved that such more profitable or than other species cattle, and would attention by the s

Mr. E. G. Gal proposed the estab of meat trade as a live stock industry. pointed out that place chilled meat kept without the of we produce first. Packer believed to build up a large trade.

In connection w industry, the subject attention was that tion and registrati were unanimous in registration.

TO PROMOTE THE Mr. E. B. Bred said that the swine the assistance of th on a proper basis. Having followed do the breeding of be unvarying prices are the business. Mr. that the packers ar after their immedi will lose in the method of paying show that at the

Let me tell You Face to Face

"Here is my question:—A \$100 roof gives a \$500 building several years of service. A \$125 Pedlar roof gives the same building 100 years of service, because it is a 100-year roof. Is the extra \$25 wisely spent?"

"I Have Learned How to Make You a Roof That Will Last One Hundred Years."

"I have been a good-roof missionary all my life. I invented Oshawa Metal Shingle for lightning protection. I made improvements in it and got my design perfect after 50 years. My roof was rain, wind, snow, ice, fire, lightning and sun proof. I still needed one thing—the longest lasting metal—non-rusting. At one step, when I found this metal, I achieved a roof to last you a whole century."

"There is No Building Made Right, If the Roof is Not Perfect."

"Guard a building on top, and you guard the whole building. The weather beats fiercest on top. I tell you, no building ever made is better than its roof. I want to see you build a good roof. Skip the walls, if you skip anything. See your roof is right. Your good roof gives three-fold building service."

"Why, in 80 years, a little thousand-dollar barn protects \$75,000 worth of hard-harvested product. A poor roof can easily rot, and waste, and lose for you twenty times its cost—twenty times the cost of a Pedlar Oshawa Shingle roof. With most roofs lightning may burn all—with my roof you can defy lightning to try its worst on your barn."

"I Make a Roof that Answers Every Roof Demand You Can Think Of."

"My roof has 'give' in it. It can expand in the sun. It can shrink in winter cold. It does this without drawing the nails that hold it. It is ice proof. Frozen snow cannot get it open. It is clean. Dirt cannot rest on it. Roof water gathered in it is pure. My roof cures its nails. They cannot loosen or rust. My roof is not too heavy or too light—it is ventilated.

"As a result, wind or storms cannot lift it bodily, like a shingle roof. It is spark proof and fire proof. It is lightning proof. It still protects a building if the frame sags. A man can lay it without special tools. He can only lay it right, the right way. Every protection, besides the protection against rust, comes with my roof. You lay my roof on ordinary framing.

"Why Do You Get Such a Good Roof from Me ALONE?"

"You can't get a roof deal like mine anywhere else in the world. This is because other metal shingles haven't my design or metal. Other metal shingles haven't my years of pioneer knowledge to back them. They haven't my ground-floor patents—my skill—my earnest and hard work of years on the one ob-

lem—a perfect metal roof. I, only, can make you a roof with the right metal in it to back the wear, because my shingle metal is the only one that make the deal honestly possible."

"Can You Lay It, and Lay It Right? Yes!"

"You, a tinsmith, anybody, can lay my roof—whichever can handle a hammer. I spent years in making my Shingle so it couldn't be laid wrong. There isn't an exposed nail, after you are done. The roof is ventilated so it is almost cyclone proof. My roof is earthquake proof, if your building under it. It is settlement-proof, sun proof—lodged ice cannot open it."

"Yes, sir, you can lay an entire Pedlar roof yourself in my Oshawa Shingle, while you are patching a few shingles on a leaky cedar roof. When you figure its service, the price of my roofing is ridiculously small. My price is very fair. Your bill for my roof is kept down, because folk all over the world are also buying. Big output means big quality at little price."

"Every Roof Owner Should Have the Help in My Big Roof Book FREE."

"My roof book, 'Roofing Right,' ought to be in your hand this very minute. I will be glad to send you a free copy. The book shows roofs, of course. It shows good buildings under them. You can get score of hints for barn design, planning and arrangement, even if you don't buy my shingle.

"But the main point about my book is that it tells you all you want to know about Oshawa Shingles. I would like you to know its goodness. I am proud of the perfection, excellent quality, fine service, easy laying, beauty and adaptability of my clean Oshawa Shingle. It is a bigger thing than it looks to give any man weather, fire, lightning, and time-resisting protection rolled into one article. My 'Roofing Right' Book tells you all about a roof that 'Makes Good' for 100 years."

"Send Me a Post-Card To-day."

"Get My 'Roofing Right' Book to-day. A post-card will bring you the whole story of my perfected Oshawa Shingle. Ask one of my branches near you. Or write me direct. Remember you better any building three-fold if you put the best roof you can get on it. People on the other side of the earth know this. You write me.

E. M. Pedlar

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Dairying, the Most Progressive

(Continued from page 8)

plants, pumping devices, etc. Speaking for Alberta, Mr. W. F. Stevens, of Edmonton, said that horse ranching was on the decline, but more horses are now being produced by the small farmers. The decline of ranching had had a more serious influence on the beef cattle industry, and in 1911 cattle were actually imported from the east. The same was true of sheep and swine.

The live stock situation in Manitoba was summed up in a masterly manner by Miss E. Cora Hind, agricultural editor of the Winnipeg Free Press. She traced the decline in ranching and showed that the hope for the cattle trade of the west must lie with the small farmer.

If there is any one province in the Dominion that is thoroughly given over to dairying it is Quebec. The great increase in this industry, Dr. J. A. Couture claimed, had resulted in great good to the farmers. The old milking Shorthorn which once held sway in the eastern townships had been almost entirely replaced by Ayrshires. Recently the Holstein cow has been gaining ground rapidly. Horse breeding also is progressing, but sheep have been lamentably neglected.

THE PRESIDENTIAL ADDRESS

Mr. Robert Ness, of Howick, Que., occupied the chair. In his opening address he called attention to the questions of leaf shortage, transportation problems in connection with interprovincial trade and bovine tuberculosis. Hon. Martin Burrell, Minister of Agriculture, in a brief speech, told of some of the plans that were being made to assist the various provinces in agricultural work.

SHORTAGE OF BEEF IN ONTARIO

Mr. John Gardhouse, speaking for the fat stock men of the east, predicted a great shortage of cattle in the near future. Farmers, he said, were not breeding or feeding a sufficient number of leaf cattle, and the quality was not as good as it should be. He believed that the difficulty could be largely overcome by improving the milking qualities of the Shorthorn cow. "I believe," said he, "that the best cow for our farms is the large, deep bodied, good fleshed, deep milking Shorthorn." Mr. Gardhouse believed that such an animal would be more profitable on the average farm than either specialized beef or dairy cattle, and would solve the problem presented by the shortage in beef supply.

Mr. E. G. Palmer, of Edmonton, proposed the establishment of a chilled meat trade as the salvation of the live stock industry of the west. He pointed out that Canada is the only part of the British Empire that can place chilled meat on the British market without the use of preservative. If we produce first quality meat, Mr. Palmer believed that we could soon build up a large and profitable export trade.

In connection with the horse industry, the subject that received most attention was that of stallion inspection and registration. The stock men were unanimous in endorsing stallion registration.

TO PROMOTE THE SWINE INDUSTRY

Mr. J. E. Brethour, of Burford, said that the swine industry required the assistance of the packers to put it on a proper basis. The system of buying followed does not encourage the breeding of better hogs. The uneven prices are driving many out of the business. Mr. Brethour believed that the packers are seeking too much after their immediate interests and will lose in the long run by their methods of paying for hogs. Statistics show that at the present rate Can-

ada will soon not be producing enough pork to meet its own requirements.

CONCLUSIONS AND RESOLUTIONS

As a result of the information contained in the papers here summarized and in the discussions the following resolutions were approved by the Convention:

That as it is desirable to breed only to pure bred stallions and that this can often be done only by taking the mares to the stallions, be it resolved that the railway companies be asked to charge full rates on shipping the mares to the stallion, but return them free of charge to the point of shipment.

That the Dominion Government

adopt a policy along the line of the eradication of tuberculosis as recommended in the report of the International Committee on Tuberculosis.

That whereas legislation in regard to stallion registration is now in force in four provinces of the Dominion of Canada, and whereas legislation has already been effective in improving the character of stallions in those provinces, therefore be it resolved that this National Live Stock Convention do strongly recommend the governments of those remaining provinces in which legislation is not in force to pass legislation for the control of stallions for public service in those provinces, and, further, be it resolved

that the secretary of this Convention do send a copy of this resolution to the Ministers of Agriculture in those provinces.

A MUCH NEEDED CHANGE

It was recommended that the Dominion Department of Agriculture should be divided between two deputies, one to have exclusive charge of the agricultural sections, and that a Bureau of Live Stock Industry, consisting of four members, be appointed to regulate, encourage and foster the live stock industry. A further resolution expressed the appreciation of the delegates for the action of the government in thus bringing together the

(Concluded on page 14)

Something Worth While

Would you like to have a good Veterinary and Horse Doctor Book telling about the Diseases of Horses, Cattle, Poultry, Sheep and Swine, and giving the remedies, the cures for all these diseases?

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(How to teach them to walk, to lie down, to bow, to sit up, to answer questions, to kiss you, to shake hands, etc.)

Hints upon Horse Shoeing.**Short Pointers for Horsemen.**

This is a valuable book containing most valuable information. It is not as well bound as we would like, being in paper cover. (Same book in cloth binding for 25 cents additional.)

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4. **CHANGE OF ADDRESS**—When a change of address is ordered, both the old and new address must be given.

5. **ADVERTISING RATES** quoted on application. Copy received up to the Friday preceding the following week's issue.

6. **WE INVITE FARMERS** to write us on any agricultural topic. We are always pleased to receive practical articles.

CIRCULATION STATEMENT

The paid subscriptions to Farm and Dairy exceed 12,000. The actual circulation of each issue, including copies of the paper sent subscribers who are but slight subscribers, is 14,000 copies, and of 12,000 to 14,000 copies. No subscriptions are accepted at less than the full subscription rates.

Sworn detailed statements of the circulation of the paper, showing its distribution by counties and provinces, will be mailed free on request.

OUR PROTECTIVE POLICY

We want the readers of Farm and Dairy to feel that they can deal with our advertisers with our assurance of our advertisers' reliability. We try to admit to our columns only the most reliable advertisers. Should any subscriber have cause to be dissatisfied with the treatment he receives from any of our advertisers, we will investigate the circumstances fully. Should we find reason to believe that any of our advertisers are guilty of the slightest degree, we will discontinue immediately the publication of their advertisements. Should the circumstances warrant, we will expose them through the columns of the paper. Thus we will not only protect our readers, but our reputable advertisers. Any advertiser who is entitled to the benefits of our Protective Policy, you need only to include in your letters to advertisers the words, "I saw your advertisement in Farm and Dairy" and your complaint must be made to Farm and Dairy within one week from the date of any unsatisfactory connection with proofs thereof, and within one month from the date the advertisement appears, in order to take advantage of the guarantee. We do not undertake to adjust trifling differences between readers and responsible advertisers.

FARM AND DAIRY

PETERBORO, ONT.

GOOD BUSINESS

"Anything that is produced in Canada by the application of Canadian brain and labor will always have first call with me. It is only good business on my part that it should."

An attractive little card bearing the foregoing words reached our desk recently with the compliments of the Canadian Market Association, Toronto, Ont. This card deserves some consideration. Who formed the Canadian Market Association? We venture to predict that a little investigation would reveal the fact that this association is directed by and closely allied with the protective institution in Canada, the Canadian Manufacturers' Association.

We freely admit that the people who are benefited by protective institutions know what good business is for themselves, but we object to their telling us what good business is. Suppose we were to undertake to grow oranges in Canada under glass and

charge five dollars a dozen for these oranges we wonder if the officers of the Canadian Market Association would be willing to pay us five dollars a dozen for such oranges when they could obtain oranges from the south, their natural home, at forty cents a dozen.

If they are honest in what they state on this card, they certainly would and they would feel they were doing "good business." We presume if we were to charge even ten dollars a dozen for such oranges, they would still be willing to pay our price because our oranges were grown in Canada.

How loyal some people are! It is time that we farmers throw back this misrepresentation of loyalty in the faces of those men who wave the old flag in order that they may stick their hands in our pockets and enrich themselves at our expense.

THE FARMERS HAVE SPOKEN

Some months ago Premier Whitney announced publicly that while he was opposed to municipalities being given the right to exempt improvements from taxation and to tax land values only should they so desire, he would not oppose such a measure should the farmers advocate it. We presume that Premier Whitney meant what he said, and, therefore, take pleasure in case he may not have noticed it in drawing his attention to the stand recently taken by the Dominion Grange at its annual meeting in Toronto, when the following resolution, after discussion, was passed unanimously by the farmers there assembled:

"We desire to place ourselves on record as favoring such a change in our assessment law as will allow municipalities the right to exempt improvements from taxation, either in part or in whole. Such can be said in favor of such exemption, and nothing can in justice be said against allowing municipalities the right to do this if they so desire."

As the Dominion Grange is the only independent farmers' organization in Ontario, and, therefore, the only organization that has any right to represent the farmers of the province, we presume that Premier Whitney will fulfill his promise and grant the legislation so much desired, not only by farmers, but by other classes in the community as well.

DR. RUTHERFORD APPRECIATED

That the live stock men of Canada deeply appreciate Dr. J. G. Rutherford, Dominion Live Stock Commissioner, and his great work in their interest has been proven time and again since the first news of his resignation was made public. In the last week or two there have been meetings of practically every association of live stock men in Canada, and almost without exception resolutions have been passed at those meetings expressing the appreciation of the members of Dr. Rutherford's work. The climax was reached at Ottawa last week, where delegates representing the live stock industry of Canada

from the Atlantic to the Pacific un-animously and heartily carried a resolution thanking Dr. Rutherford for his work in their behalf.

Dr. Rutherford's work for the advancement of the live stock industry in Canada has been invaluable. For almost 30 years he has devoted his abilities to the furtherance of this industry. He has served in many capacities and in all with satisfaction to those whom he represented—the live stock men of Canada.

Along with the expression of appreciation of Dr. Rutherford's work have been many expressions of regret that so valuable a public servant is to sever his connection with the Department at Ottawa. It has been rumored, and we have reason to believe, that Dr. Rutherford's resignation is due to the unsatisfactory arrangement in the Department, whereby it is necessary for him to act under the direction of the Deputy Minister, a lawyer, who can not have a proper appreciation of the importance of Dr. Rutherford's work.

It would be difficult indeed to replace Dr. Rutherford. If any rearrangement of the Agricultural Department can be made whereby the strictly agricultural branches may be placed in a Department by themselves under the direction of a deputy minister who is truly an agriculturist, and Dr. Rutherford's services retained thereby, such action will meet with the approval of all who have the best interests of Canada at heart. If the Hon. Martin Burrell can retain Dr. Rutherford's services for the live stock interests of Canada he will confer a great benefit on that industry, and his action will be appreciated by live stock men everywhere.

A REWARD OF MERIT

The returns that come to some dairymen as a result of their intelligent feeding and management should convince all other dairymen that it is well worth our while to be right up-to-date on everything that concerns the dairy cow. The experience of Mr. Percy Clemons, of St. George, Ont., is an instance of intelligent management well rewarded.

When Mr. Clemons bought their great cow, Evergreen March, they paid for her \$112.50. After she had made her great record, Mr. Clemons priced Evergreen at \$2,000, but today he would not care to put any price on her since she is worth more than that in his herd. A few weeks ago one of her sons sold for \$500, and her yearling heifer for \$800. All of this value comes from the great record that Evergreen was able to make as a result of Mr. Clemons' careful and skillful feeding. Of course, her breeding had a lot to do with her producing ability, but she had never made great records until she came into Mr. Clemons' hands.

We cannot all expect to get such large returns for good management as did Mr. Clemons. We can all, however, greatly increase the value of our dairy herds through good feeding and the satisfactory records that are

found to result. Even if we do not greatly increase the selling value of our animals, the increased interest that we take in our herd and the greater milk flow will more than compensate us for the trouble that we take in making of ourselves skillful and intelligent dairymen.

The Minister of Agriculture for the Dominion, Hon. Martin Burrell, is to be congratulated on securing for the federal department the services of Mr.

To Wider Fields

C. C. James, Deputy Minister of Agriculture for Ontario. For many years, Mr. James has been the backbone of the Ontario Department of Agriculture, and much of the progress work that has been done in connection with that Department can be traced to the initiative and untiring efforts of the Deputy Minister. Ontario's loss will be Canada's gain, and in the wider field offered him by the Dominion Department, Mr. James, whatever permanent position he finally occupies, will be found doing good work in the interests of Canadian agriculture. All will unite in wishing Mr. James every success in his new field.

The annual meetings of the various Dominion horse, cattle, sheep and swine breeders' associations were held recently in Toronto.

Independence

They were attended by upwards of 2,000 breeders, and the sessions extended for a couple of weeks. There was one outstanding feature about all these meetings. The men who attended were not looking for government favors of any kind. They stood on their own feet, and the organizations they represented showed a thrifty virility that is almost invariably lacking in organizations depending on government grants. One of these organizations has a balance on hand invested in municipal bonds of over \$11,000. In his address at the banquet of the Holstein Friesian Association, Mr. G. A. Putnam, Superintendent of Farmers' Institutes for Ontario, called attention to the inherent strength of breeders' organizations, and stated that similar strength seems to be lacking in the case of those farmers' organizations that expect to be sponged fed. It is time that we farmers stood on our feet a little more than we do and run our own affairs without waiting to have everything done for us. We can never develop true strength until we learn to do things for ourselves.

"Birds of a feather flock together." Look through the advertising columns of Farm and Dairy and see the fine plumage of highest merit. Then glance at a publication that does not guarantee the reliability of its advertisers and see a bird of another color. The hues are as numerous as the shades of the rainbow, and about as definite when it comes to placing your fingers on them. See what our guarantee says on this page about advertisers.

There is POSE back fishing Eight year Special

Primarily need to the must REND LIC SERVICE

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To do the quire circulation, although 483 names of mailing lists.

We do no circulation.

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XVII

There is a GREAT PURPOSE back of our policy in publishing Eight times during each year Special Magazine Numbers.

Primarily before we can succeed to the greatest extent we must RENDER A GREAT PUBLIC SERVICE.

We must first of all do good—**BE A POWER FOR GOOD.**

To do the greatest good we require circulation,—more circulation, although we now have 12,483 names on our regular weekly mailing lists.

We do not approve of forced circulation. With Farm and Dairy it must be FULL \$1.00 PAID - IN - ADVANCE, coming from progressive, farmer people, who can appreciate REAL WORTH in the farm paper for which they subscribe.

Therefore we do not hire paid canvassers.

WE WORK entirely through OUR PEOPLE who appreciate the real worth in Farm and Dairy, and show it to their friends and neighbors.

Before we could hope to get very far with this policy we of necessity must spend money on improving Farm and Dairy. We must make it THE LEADER in its field. We must GIVE GREAT VALUE for the money than the 'other fellow.'

One means we have of doing this is with our EIGHT Specialized Magazine Numbers, now in FOURTH ANNUAL SERIES.

These Magazines are planned months in advance of their date of publication. They feature information of great practical value. They are in a sense WORKS OF REFERENCE, and are kept as such by our people.

Each of our Eight Magazine Specials are given from 1,000 to 2,000 extra circulation, all of which is as so much "velvet" to our advertisers, who patronize these Specials and thereby enable us to make them the success they have been from the start, and help maintain Farm and Dairy in that distinctive class, where it is—
"A Paper Farmers Swear By"

Making Farmers Prosperous

(Grain Growers Guide)
The tariff makes farm implements cheaper in United States than in Canada, while the price of grain is exactly the reverse. The following table shows how many bushels of grain it takes to buy an 8-foot binder in Manitoba and Minnesota:

	Manitoba	Minnesota
3 Nor. Wheat ...	152 bus.	208 bus.
Feed Wheat ...	196 "	307 "
No. 3 Barley ...	138 "	296 "
Rejected Flax ...	78 "	120 "
3 O. W. Oats ...	299 "	493 "

The Manitoba farmer gets the worst of it by from 30 to 114 per cent. Yet "protection" makes him prosperous. At the present rate, the protectionists will soon force a great many farmers to quit farming in order to make a living. These are all man-made schemes. Providence is not to blame.

Combines Condemned

Combines and mergers that operate in Canada to unduly enhance prices of commodities to farmers were vigorously condemned at the recent meeting in Toronto of the Dominion Grange. In his annual address, Master, N. E. Burton, of St. Thomas, called attention to it when he said: "The increased cost of living, both on the farm and among the industrial workers of the city, is one of the vital questions that calls loudly for solution. Each day it becomes more evident that combines, mergers and trusts have the people at their mercy, and are able to fix prices both to the producer and the consumer." In this connection Mr. Burton suggested that as farmers we should consider the advisability of co-operating with the Trades and Labor Council in an effort to secure a remedy.

The influence these financial interests have in moulding legislation to suit their purpose and the need for action by farmers was mentioned in the report of the executive committee of the Grange, where it was stated:

"Our agricultural population is 'regarding the mode of operation that is being used to accomplish the purpose of the moneyed interests. The power of prevention and cure rests with us. If we are able to harness and control the latent power of the farmers who form the great bulk of the electorate success will be ours. We trust that some means will soon be found ere it is too late to start this great balance wheel into intelligent motion."

The Legislative Committee of the Grange reported as follows:
"We would urge upon the Domin-

For the Land's Sake
use
Bowker's Fertilizers

They enrich the earth and those who till it. By the use of a good fertilizer, any farmer can add greatly to his profit through raising bigger crops. He can make each of his acres produce more, or he can cultivate fewer acres, and still produce as much as he is getting now, but with less labor and expense. This is a big item, if hired help is scarce.

We have a fertilizer to fit every crop and every pocketbook. Each one is ready to use, and easy to apply. Our catalogue gives full information and directions. Many years of experience in both Canada and the United States, the best facilities, and prompt service are behind every bag we ship.

If we have no agent near your farm, we want one. It pays to sell as well as use our fertilizers.

Write today for our catalogue and calendar. Both will be sent promptly and without cost. If interested, ask for agency proposition, but write anyway for the catalogue.

BOWKER Fertilizer Company,
77 Lyman St., Buffalo, N. Y.
Original and largest manufacturers of special fertilizers.

ADVERTISERS Send a Line Right Now
about the special space you want in our Big Orchard and Garden Magazine Number—out March 15th.
Note Great Dairy Annual, out April 4th. FARM AND DAIRY, Peterboro, Ont.

About the Farm

The wastes of the farm are responsible for more farm failures than any other one thing.

Cleanliness is next to healthy stock and some satisfaction in working around the barn these cold days.

The wisest farmer plans to keep as much fertility as possible on his own farm. Instead of selling his grain crops, he feeds them and buys whatever grain his neighbors have for sale.

Dairying and stock raising may have some discouragements at times, but no farmer who expects to keep up the fertility of his land can afford to quit handling stock.

"ion Government the need for prompt and thorough investigation of alleged combinations in restraint of trade, and the removal of duties, as already provided for by statute, wherever such combinations are shown to exist. In particular, on behalf of the farmers of Canada, we ask for the abolition of the duty on cement."

The Dominion Grange is the only organization the farmers of Ontario have to fight their battles in matters of this kind. As farmers we should rally to its support.

Pure air makes pure blood; pure blood makes you disease resisting.

DE LAVAL CREAM SEPARATORS

For 34 years the "World's Standard"
Always ten years years ahead of all others

De Laval Dairy Supply Co., LIMITED 173 WILLIAM ST., MONTREAL.
14 PRINCESS ST., WINNIPEG.

HARNESS THE WIND

And make it pump your water, grind your feed saw wood, run grindstone, drive your machinery of all kinds.

Cheapest Power for Farm and Dairy
because nature supplies it. The most useful, least troublesome and most dependable hired help you can get.

CANADIAN AIRMOTORS

prove best by the test of years of service. Our free book tells why. Write for a copy.

ONTARIO WIND ENGINE AND PUMP CO.
Winnipeg. TORONTO. Calgary



Complete Butter Plant FOR SALE

- 1 (200 gal. drum) Success Churn and Worker, C. Richardson's make, B. Mary's. Used only 18 months. Is in first class shape.
- 1 Refrigerator, large size, 2 ft. by 1 ft. 4 ft. inside.
- 1 Two H.P. Horizontal Stationary Boiler.
- 1 Six H.P. Lenard Engine, to set on house inside boiler.
- Water Tank, Belts, Shafts and Pulleys. Will sell in bulk or Churn alone. Reason for selling: gone out of butter making. And WILL SELL CHEAP. For full particulars write to

CHAS. J. ZEH, R.R. No. 5 Tavistock, Ont.

CREAMERY FOR SALE

In good dairy district in western Ontario, fully equipped and in good running condition. Ice and wood in. Excellent water and drainage. Doing a very profitable business. Don't miss unless you mean business.

BOX 388, FARM AND DAIRY, PETERBORO, ONT.

95 AND UPWARD



AMERICAN SEPARATOR

THIS IS THE NO. 1
It is a valid proposition to send your guarantee to the manufacturer who made your running separator for \$15.00. Write for a free catalogue milk making heavy or light machines. Described especially for small dairies, hotels and large dairies. Instructed from factory literature, which illustrates our various capacity machines. The most sanitary, most easily cleaned. Strongest, made especially for TORONTO, ONT. N. S. & W. CO. Write for a free catalogue. Your choice is large or small, write for a free catalogue. Address: AMERICAN SEPARATOR CO., Box 1111, WINDSOR, ONT.

Send to your address, we will tell you when you want your separator. \$3 a Day Sure. The bestest dairy separator ever made. Write for pamphlets and recommendations. Do it now.

\$3 a Day Sure
The bestest dairy separator ever made. Write for pamphlets and recommendations. Do it now.

Creamery Department

Butter makers are invited to send contributions to this department, to ask questions on matters relating to butter making and to suggest subjects for editorial comment. Address letters to Creamery Department.

No Danger of Over-production

J. A. Ruddick, Dairy Commissioner, Ottawa

We have seen that the United Kingdom continues to absorb an increasing quantity of dairy produce, and that Germany is becoming every year a larger buyer of these articles of food from other countries. The home market in Canada is expanding with the increase of population, and from all appearances the United States will soon be an importer instead of an exporter.

The greatly improved quality of all butter which has followed the application of skill and scientific methods in its manufacture results in it being spread more thickly than it formerly was, and as this occurs at practically every table in the land, the total increase of consumption on that account is very large.

The most outstanding feature of the dairy trade at the present moment is the growing demand for milk for the larger towns and cities. It is quite as noticeable in Canada as elsewhere. Winnipeg is now obliged to obtain a large quantity of milk daily from such a distant point as St. Paul, Minn. The demand in Vancouver is closing many of the creameries in the Fraser Valley. The same thing is occurring in other parts of the country.

PER CAPITA CONSUMPTION

The increased per capita consumption of milk and cream is very large, not only in Canada, but in all countries where these articles are included in the daily dietary of the people. The improved sanitary conditions surrounding the production and distribution of market milk have given a great stimulus to its use, and there is still much to be accomplished in that direction.

The only countries which are likely to increase their exports to any considerable extent are Australia, New Zealand and possibly Siberia, but there is no reason to believe that the increased supplies from these countries will exceed the growing demand for dairy produce.

The conditions which have been outlined here give no indication of an over-production of butter, because during the next few years at any rate, and there would appear to be at the same time a fair promise of good prices. On the whole, the outlook for dairying in Canada is as good, if not better, than it ever was, and it seems to be particularly bright for the coming season.

Comments on Boilers

Now and then one still notices creameries using small upright boilers. There is no creamery in the country worthy the name of creamery that can afford to use an upright boiler. They are not so economical as horizontal boilers and generally less satisfactory.

PERFECT Maple Evaporator

Price low—quality high—product the best possible—the kind you like syrup—it retains its maple taste—all—unnecessary expense and mistakes in product out. Sold at a price the poorest man can buy. Write for pamphlets and recommendations. Do it now. Steel Trough & Machine Co., Tweed, Ont.

We believe there are few creameries still using upright boilers, but we know that there are plenty of creameries using boilers too small for best results. A boiler of too small capacity is wasteful of fuel. Such a boiler is required to contain the steam, which in itself is wasteful of fuel as well as labor, but such firing results in much wet steam, which is also wasteful of fuel and causes "priming."

Errors in Taking Samples

L. A. Zuffelt, Supt. Kingston Dairy School

A difficulty that may be met with in taking cream samples for testing is in getting a sample that is truly representative of the quality. From investigations conducted by Mr. J. F. Singleton it was found that the samples gathered by the cream hauler fairly represented the quality of the individual creams, and we have no reason to doubt the correctness of these samples when reasonable care is observed in mixing the cream before the sample is taken.

If, however, composite samples are preserved some effort should be made to take a sample which is placed in the jar represent proportionately the amount of cream delivered. For instance, if the weight and quality of the cream varies with each delivery in the composite, the results may not be absolutely accurate. For example, if a patron delivers 40 lbs. of cream that tests 30 per cent. fat on one day and 60 lbs. testing 20 per cent. on another, he would deliver altogether:

40x30.....	12 lbs. fat
60x20.....	12 lbs. fat
100.....	24 lbs. fat

or in the two days he would have delivered 100 lbs. of cream having a total of 24 lbs. of fat and testing 24 per cent. If the same quantity of each had been put in the sample jar and tested, it would have shown an average of 25 per cent. fat. In other words, the patron would have received credit for one per cent. more fat than he was entitled to.

While the above may be an extreme variation and not usually met with, it illustrates the point that some effort should be made to take the sample taken fairly represent both the quality and quantity of the cream.

Dairying the Most Progressive

(Continued from page 11)

live stock men, and it was recommended that arrangements be made to hold the Convention every two years instead of every four, as formerly. A committee of the dairymen presented a resolution expressing their hearty appreciation of the work of the Dominion Government in the carrying out of the Record of Performance tests. Another resolution recommended that the payment for milk and cream at butter and cheese factories on a butter fat basis be made compulsory. The resolution as it was worded was strongly objected to by Col. McCrea of Guelph, and Mr. J. A. Ruddick. The motion was laid over.

Due to the efforts of Mr. Robt. Miller, of Stouffville, a resolution was carried recommending that the words "Resolutions in Canada" be added to the qualifications necessary in an importer before he can import pure bred stock into Canada free of duty.

The election of officers resulted as follows: Pres., Andrew Graham, Port Huron, Mich.; vice-pres., John Bright, Myrtle, Ont.; Executive committee, Hon. W. Garneau, Que.; P. M. Brod, Regina, and Cap. T. E. Robertson, London; sec.-treas., A. P. Westervelt, Directors, A. D. Patterson, Ladner, B.C.; J. A. Turner, Calgary, Alta; Robt. Sinton, Regina, Sask.; A. McPhail, Brandon, Man.; W. W. Ballantyne, Stratford, Ont.; V. Sylvester, Chairox, Que.; E. C. Cook, Hamilton, Aphogah, N.B.; M. Cumming, Truro, N.S., and Hon. N. McKinnon, Charlottetown, P.E.I.

An address by Dr. J. G. Rutherford on tuberculosis will be summarized in a future issue of Farm and Dairy. Several of the addresses already referred to will also be dealt with more fully in future issues of Farm and Dairy.

RAISE THEM WITHOUT MILK

Steel, Briggs Seed Co., Ltd., Toronto, Ont.

WANTED A Second-Hand TER WORKER. Write:

R. SCOTT & CO., Mount Forest, Ont.



"I Can Get an Extra \$25 for that Mare of Yours"

You simply can't afford not to have an Independent Telephone for your farm. You know what prices are before you use a Payphone. We guarantee the death of a crowned head—financial ruin—all affect the market, and send prices up or down. You have got to be sure because it is so late after you ship.

The farmer who has his Independent Telephone has the world's market at his call. Buyers and commission merchants call them, and get in touch with possible customers. He hears of every new business, because his telephone is instant and handy.

STROMBERG-CARLSON Independent Telephone



MAPLE SUGAR MAKERS

The Lightning Evaporator is not only the fastest one made in the world, but it holds more prime, finished and diploma for quality of syrup than any other. Write for catalogue, it is free and gives lots of information. SMALL BROS., - Dunham, Que

Cheese

Makers are invited to send contributions to this department, to ask questions on matters relating to cheese making and to suggest subjects for editorial comment. Address letters to Cheese Department.

Pooling Milk

As the sale of milk on a farm system followed, it prays and thereby is enabled to produce a quality of fruit that his neighbor spray and ruin the grading of quality, and the his basis.

If the breeder vices horses or cattle 'ity' in his stock to send milk the farmer who milk gets the same as the man who four or 4.5 per cent.

The experiment these factories, and experiments, not conclusively milk the more from a given cup should the patron per cent milk be as the man sending milk? The system great majority of today is nothing but a system of patrons sending the

Handicaps of the

W. Waddell, M. A maker should curing routine should work to correct defects. We cannot in a day, but we can straighten. A cure up to 80 degrees cheese.

Books for

Do you want to see Dairying, Stock Raising, Farm Groups, or any farming? We can supply books of this nature book catalogue.

Book De

FARM & DAIRY

ALL THE ES

is placed in a complete Dairy Cattle and

By Prof. C.

Over 340 pages that cover a way that is new. Professor of Dairy-cows and to prevent

Fifty-seven illustrated dairy breeds, noted for their ability to give of good barns. A CHAPTER OF CATTLE-UBBER

Prof. E. C. A noted dairy author of experience, entire training. For a brochure of a herd of these

ing animals. For see new. Professor of the University of Michigan from this book. It will boys Price, \$1.75 Book Dept. FARM AND

Cheese Department

Makers are invited to send contributions to this department, to ask questions or make remarks relative to cheese making. We suggest subjects for discussion. Address: The Cheese Maker's Department, 1000 Adelaide St. W., Toronto.

Pooling Milk is Robbery

John McKee, Oxford Co., Ont.
In the sale of no other product sold on this farm is the pernicious pooling system followed. If the farmer properly sprays and prunes his orchard and thereby is enabled to grow a superior quality of fruit he gets a higher price than his neighbor who neglects to spray and prune. The law compels the grading of fruit according to quality, and the grower is paid on this basis.

The brooder who raises high class horses or cattle gets paid for "quality" in his stock, yet when it comes to sending milk to a cheese factory the farmer who sends three per cent milk gets the same price per 100 lbs. as the man who sends milk testing four or 4.5 per cent of butter fat.

The experiments carried on at our cheese factories, agricultural colleges and experiment stations all prove most conclusively that the milk of the milk the more cheese can be made from a given quantity. Then why should the patron sending the three per cent milk be paid the same price as the man sending the high testing milk? The system as followed at the great majority of our cheese factories today is nothing more or less than downright, legalized robbery of the patron sending the high testing milk.

Handicaps of the Cheese Maker

W. Waddell, Middlesex Co., Ont.

A maker should not be asked to make up milk with had milk and poor curing rooms. We cheese makers should work to eliminate these defects. We cannot reach perfection in a day, but we should not get discouraged. A curing room that will go down to 80 degrees cannot give good cheese.

Books for Farmers

Do you want to secure a good book on dairying, Stock Raising, Poultry Raising, Farm Crops, or anything in relation to farming? We can supply you with the best books of this nature. Get a copy of our book catalogue. It is free.

Book Department
FARM & DAIRY, PETERBORO

The Essential Information

ALL THE DAIRY COW

is placed in a compact and usable form.

Dairy Cattle and Milk Production

By Prof. C. H. Eckles

Over 340 pages presenting material in such a way that it will assist the practical dairy owner and will introduce milk economy.

Fifty-seven illustrations show types of dairy breeds, noted dairy animals, apparatus for treating milk, over, examples of good barns, stalls, King system of ventilation, Procter used for Bloat.

CHARLES O'CONNOR, ALEXANDER'S OF CATTLE-ODDER TROUBLES, CONCEPTION, ETC.

Prof. Eckles, the author of this book, was a noted dairy authority. He has the practical experience of a well known cattle trainer. For over 15 years he has had charge of a herd of from 30 to 50 cows, many of which were high producing animals. For some years he has been the Professor of Dairy Husbandry at the University of Minnesota.

Order with dairy cows on profit from this book. It will be sent you for

Price, \$1.75 postpaid.

FARM AND DAIRY Peterboro, Ont.

We are improving in both of these particulars. We should work to improve the patrons and if it is a joint stock company, through them the improvement of the buildings.

Satisfied with Cool Curing Room

W. G. Locklin, Hastings Co., Ont.

Three years ago we installed a cool curing room in the Rogers Cheese and Butter Factory. It gives good satisfaction. Such a room is a great advantage to any cheese factory of ordinary capacity.

The cost of installing our curing room was about \$700, or a little less.

The curing room was built by placing matched hemlock on studding, then two thicknesses of moist-proof paper covered with ship lap siding. Inside is matched lumber filled with shavings, then moist-proof paper and covered with 1,000 cheesecloth. There are cement floors in the curing room. Our ice chamber holds about 600 cases of ice. Usually we leave an air space at the bottom, but when filling we pack it right tight against the sides. By the time the cool air is needed enough ice has evaporated around the sides to give plenty of circulation. The room, however, we left space all around, but have since had the results by filling tight against the sides. The ice lasts the season through.

NO GREASE NOW

We have complete control of the temperature in our curing room and can have our cheese firm and hard in the hottest day in summer. It is equal to fall curing. We never see any grease on the shelves. We have made no definite test to know just what we may be gaining by our investment in a cool curing room, but we know that we get a better average than we did with the old curing room and a better average than neighboring factories that used to be equal with our own. I am satisfied that we get more pounds of cheese from the milk manufactured and our cheese go on the market in much better condition than before.

Buyers do not give cool curing as preference they should not as much as they promised to when agitating the system, but even with almost even the curing room more than pays its way.

C. C. James Goes to Ottawa

The appointment by the Dominion Government of Mr. C. C. James, Deputy Minister of Agriculture for Ontario, as Special Commissioner to inquire into the question of federal and provincial cooperation in the encouragement of agriculture, will deprive Ontario of a most valuable public servant. It is understood that Mr. James severs his connection with the Provincial Department of Agriculture permanently. It is not improbable that if he is not made the head of the prospective permanent agricultural commission, he will become deputy minister of the federal department in place of Mr. O'Halloran, the present deputy minister. Mr. James having charge of the agricultural sections of the department only, Mr. O'Halloran being given charge of the copyright, census and similar bureaus.

Mr. W. Bert Roadhouse, for three years private secretary to Mr. James, has been appointed Deputy Minister of Agriculture for Ontario to succeed Mr. James. The work formerly under the supervision of Mr. James has been divided, Mr. Roadhouse having charge of the inside work of the department and Mr. C. F. Bailey, as his assistant, will have charge of the outside work, such as supervision of the district representatives.

Experience with Fertilizers

(Continued from page 5)

Two years previous to this test I tried the Union experiments Nos. 3 to 10, also on potatoes. That season the standing was not quite the same. Superphosphate led by five bushels an acre, manure coming second and the mixture third, closely followed by the potato fertilizer. The "Royal Canadian," nitrate of soda and potassium were all about equal, giving just about one-third as much increase in yield as did acid phosphate. Strange to say, the gain due to the use of phosphate was almost exactly the same in each test, being 73 bus. in 1908, and the yield per acre was also almost identical. In both tests the plots were situated on the poorest land on a five-acre field of potatoes.

In 1910 all the rest of the field received a dressing of about 300 lbs. of phosphate per acre, a large part of it giving a greater yield than the plots. I decided results on my land, which is a sandy loam, I would caution Farm and Dairy readers against the jump to the conclusion that it is likely to do the same in all cases. I believe that nearly all soils that have been cropped for any length of time will respond to any amount of fertilizer some one or other of these fertilizers. Some may require one, some another and others again possibly a combination of the three elements. The action of the farmer's business to find out what his land requires, whether the application of it will be profitable, and if so to apply it. Then, again, different crops require the elements of plant food in varying proportions, so that the fertilizer that gives the best returns with one crop may be of very little benefit to another. I find this very marked when I use the same materials on mangels and turnips and fall wheat. I had also intended taking up the effect of these fertilizers on the grain crop succeeding the potatoes, but my letter is already too long, so I must reserve this for future consideration.

Holstein Breeders' Doings

(Continued from page 10)

Evergreen March at 8 years made 29.50 lbs. in 7 days and 97.81 lbs. in 30 days. Netherby Queen Jane, owned by H. J. Allison, made 22.86 lbs. fat in 7 days at 8 years. Olive Schuling Posh at 5 years made 22 lbs. fat in 7 days. She is owned by James Bettie.

Clara Mercedes De Kol, at 6 years, owned by H. Jerome, made 22 lbs. fat in 7 days. Aaggie Mercedes at 4 years, made 21.60 lbs. fat in 7 days and 88.69 lbs. in 30 days. She is owned by J. M. Van Patter.

JUDGES FOR FAIR

The following judges were selected by the board of directors: Toronto—R. S. Stevenson, Ancaster, Ont.; reserve P. F. Clemens, Shortbrooke and Quebec—R. S. Stevenson and C. Hallman, Breslau, reserve; London—E. Laidlaw, Aylmer West, with F. Maltby, reserve; Ottawa—Prof. B. Thorne, MacDonald College, Que. G. A. Brethen, Norwood, reserve; St. John—R. S. Stevenson, D. C. Platt reserve; Halifax—G. A. Brethen, reserve; R. S. Stevenson, Charlotte town—R. S. Stevenson, D. C. Platt reserve; Winnipeg and Brandon—M. H. Haley, Springfield, A. E. Hulet, reserve; Regina—G. A. Gilroy, Glen W. Richardson, Victoria and New Westminster—D. C. Platt.

The trouble with most of our 3,000-lb. cows can be readily traced to the owner. With decent rations they would be 8,000-lb. cows.—L. C. Smith, Peel Co., Ont.

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Sandy Braden looked straight ahead of him, down the deeply tinted prairie road, at the hazy outlines of the sand-hills, with their scattered spruce trees, blurred now into indistinctness—that is, his eyes were turned toward them but what he really saw in those of the sudden flashes of nothing is ever entirely forgotten, was a cheerful old-fashioned room, with a rag-carpet on the floor and the sun came through the eastern windows, and the whole place felt like Sunday. He saw his mother sitting in the rocking-chair, with a big Bible on her knee, and by her side was a little boy whom he knew to be himself. He saw again on her finger the thin silver ring, worn almost to a thread, and felt the clasp of her hand on his as she guided his finger over the words she was teaching him; and back through the long years they came to him: "Love one another as I have loved you." He remembered, too, and smelled again the sweet-mary leaves that were always kept in his mother's Bible, and again the cards with big colourful birds on them that he had set at Sunday school for regular attendance and which were always kept between his pages; and while he mused on these things with sudden tenderness, there came back again the same numb feeling of sorrow that he had had when he came home, a heart-broken boy, from his mother's funeral that day so many years ago, and buried his face in the sweet-mary leaves in the old Bible, and blotted its pages with his tears; for it seemed like he had that anything else in the house. He remembered that the undertaker's black mat with the chasty white border was still in the room, and where the coffin had rested, and that the room smelled of camphor.

Pearl saw that memory was busy with him, and said not a word. At last he spoke. "You're right, Pearl," he said. "Somebody did read it and pass it on to me, and it would have been better for me if I'd staved closer to what she taught me."

"Ain't it queer how things turn out?" Pearl exclaimed after a long pause. "Now, I've often wondered why Christ had to die—it seemed a horrible thing to happen to Him, and Him that lovin' and kind—do you mind how gentle and forgivin' He was?"

Sandy Braden nodded. "Well, Mr. Donald and I have been talkin' about it quite a bit, and at first we thought it shouldn't have happened, but now it looked as if God had to strike hard to make people listen, and show them what a terrible thing sin is. Death ain't nothin' to be afraid of, nor sufferin' either. Sin is the only thing to be real scared of. It wasn't the rusty nails through His hands that made the dear Lord cry out in agony—it was the hard hearts of them that done it. Bill Cavers's death has done good already, for it has closed your bar; and you're a different man now, thinkin' different thoughts, ain't you?"

(To be continued)

Why Girls Leave the Country

Peter McArthur, in the Globe
There are many causes for the revolt of the girls. They crowd on so rapidly that I find it hard to make a selection. About a year ago I received a letter from a woman in St. Mary's, which set forth in all its littleness the meanness with which



"Home Sweet Home."

A country home always seems to have an air of comfort and homeliness not found elsewhere. Perhaps that is why business men in town always dream of a home in the country "some day." In our illustration may be seen the farm home of Mr. Fred Bertram, Peterboro, Co., Ont.

—Photo by an editor of Farm and Dairy.
many farmers treat their wives in money matters. I avoided the theme, because observation has taught me that meanness of this kind is not peculiar to either sex.

Money greed can shrivel the souls of women as well as of men, but I have no hesitation in saying that few Canadian girls are fairly treated in regard to payment for their work. Neither their fathers nor mothers nor brothers can understand why they should ever have a dollar that they can call their own, and for which they should not render a strict accounting. They may be given good clothes and a piano, but that is regarded as sufficient payment for all they may do. If there are sons in the family an effort will be made to give them all a start in life, but unless the daughter marries her outlook is anything but encouraging.

THE CITY A MEANS OF ESCAPE

The girls see this, and are hardly to be blamed if they accept the city means of escape that is open to them. By going to the cities they can win a measure of independence and have some money of their own. Because they can afford to work for less money than men, they find it com-

paratively easy to find work and relief from conditions that are intolerable.

But what becomes of them after that? Some time ago I received a manuscript written by a typewriter on the subject, "Why Girls Do Not Marry" (As I think it over it surprises me to find how much this question has been thrust on my attention.) Her explanation was naive and direct. They do not marry because they are not asked. She did not mention the fact that she herself was occupying a position that, if filled by a man, might enable him to support her as his wife. By their own perfectly justifiable struggles they are making their difficulties harder to solve.

HOUSEHOLD CONVENIENCES LACKING
There is another reason why girls are leaving the farm that must not be overlooked. Women respond much more quickly than men to the graces and refinement of civilization. The comforts and conveniences of city housekeeping are almost unknown in the country. Beyond having better stoves to work with, many farmers' wives have to drudge and slave at their work in much the same way as did their pioneer grandmothers. Country mothers cannot be blamed if they wish to have their daughters escape from the hardships they have suffered, and in that way encourage them to go to the cities; and the daughters are even less to blame if their ambition is to get homes that have the advantages they cannot help noticing whenever they go to town. They do not foresee that with these advantages go many disadvantages that are even more grinding—such as the high cost of living. The more I think of it the more I am convinced that the revolt of the girls is due to their home surroundings. Many of them live in brick houses that have the outward appearance of palaces and the inward accommodations of log-barrens. They can see that their brothers being provided for, who no provision is being made for them. They dread the hard, narrow lives that are lived by their mothers, and are not to be blamed if they do.

THE MEN CAN FIND THE REMEDY
The only solution that suggests itself is that of providing more consideration for fathers, brothers and husbands for country girls, and if without any wish to appear humorous or to make a display of cheap patriotism. When a young farmer asks a girl to marry him she should have the sound sense to look matters over and see whether the home he is offering her has as many conveniences as he has in his up-to-date cow-stable.

There is no longer any reason why country girls and country women should not have every advantage that may be secured in the city. Besides, they can have gardens and outdoor life that the earnings of the farms and the freedom that should go with prosperity, instead of being sacrificed to the almost universal greed of getting rich that makes so many men mere puppers with bank accounts.

Note.—The flocking of our girls into our towns and cities is one of the most serious phases of our rural depopulation problem. Census statistics show that in almost every large city and town in Ontario there are more females than males. In rural sections the proportion of the sexes is the exact reverse. Why is it that country girls prefer the city to the country? Mr. McArthur has here suggested some of the reasons. Farm and Dairy would welcome a discussion on this subject by our readers.

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SYNOPSIS OF CANADIAN NORTH-WEST LAND REGULATIONS

ANY person who in the sole head of a family, or any male over 21 years of age, has a quarter section of available Dominion land in Manitoba, Saskatchewan or Alberta. The applicant must appear in person at the Dominion Lands Agency, or Sub-Agency, for the District in which the land is situated. The Agency, on certain conditions, by father, mother, son, daughter, brother or sister of the intending homesteader, will grant a 640-acre homestead on the following conditions:—
Duties—Six months' residence upon and cultivation of the land for each of three years.
A homesteader may live on three miles of his homestead on a farm of at least 16 acres solely owned and occupied by him or by his father, mother, son, daughter, brother or sister.
In certain districts a homesteader in good standing may pre-empt a quarter-section alongside his homestead. Price \$10 per acre. Duties—Must reside upon the homestead on the following conditions:—
In each of three years from date of entry (including the time required to earn his own means) cultivate fifty acres extra.
A homesteader who has exhausted his homestead right and cannot obtain a pre-emptive right, may purchase a quarter-section in certain districts. Price \$10 per acre.
Duties—Must reside six months in each of three years, cultivate fifty acres and erect a house worth \$300.00.

Deputy of the Minister of the Interior, Ottawa.
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FARM & DAIRY, Peterboro, Ont.

The Ideal Farm Kitchen

The farm kitchen should fit the needs of the family for it is in many respects the most important room in the house. The evil effects of poorly cooked foods are not only physical but mental and moral as well. Our grandmother's kitchen was the largest room in the house, large enough to accommodate the various industries which were carried on under that roof—soap was made, candles dipped, cotton and wool spun and a great variety of activities pursued. But in this generation which when all such things are done in factories, the small,

compact kitchen has replaced the larger one.

The first thing to be considered in connection with the kitchen is the finish of walls and floor. From the standpoint of cleanliness and ease of care, light-colored painted walls which can be cleaned with quantities of soap and hot water are preferable to the dingy, fly-specked wall paper, common to most kitchens. The floor should be covered with a good linoleum, carefully laid, for nothing is so easily kept clean, and the housewife should be spared the back-breaking task of scrubbing a soft wood floor. There should be several well-screened win-

dows to make this room a light, cheerful place. A dingy kitchen is very depressing as well as unsanitary.

Household Suggestions

When cleaning furniture wipe it over with tepid, soapy water, and dry it before polishing with beeswax and turpentine.

Turpentine is an excellent cleanser for many things. It will remove the marks of black lead from a marble mantelpiece, amongst other things.

Young housekeepers will find it a

good plan to keep an account book and enter, with regularity, all house-keeping expenses, adding up accounts every evening and making a weekly summary.

Scratches on tables are very annoying. Keep a supply of rounds of dark green felt, on which to stand china jars, flower vases, and so on. These will not be noticeable, and will vastly save polished surfaces.

Thick blotting-paper under doilies will keep hot dishes from marking a polished table. The blotting-paper should be cut the same size as the various doilies. It takes the place of asbestos mats.

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Make Country Life Attractive

The work of the farm home, the farm school and the farm church all must be re-directed. They must come to teach the young people of the country in terms of their life work.

Country boys and country girls must be brought up to speak in terms of action, of their career as the landed gentlemen and gentlewomen of great commonwealth. They must learn to make good on the farm or they never will be kept there.

The first change must come in the

home. I would advise every farm father and mother to plan the week's work and the year's work with the boys and girls. They should be made a part of it; given an interest in it.

BOYS WILL GET AMUSEMENT
Then heads of farm families should direct the amusement interests of their children. Boys should not be permitted to go to town and learn to smoke cigarettes, swear and take their first lessons for the penitentiary, thinking they cannot have any fun on the farm.

Every farm boy and girl should be given one-half day off every week, a holiday that he can depend on, to spend in baseball or football or other outdoor amusement. Healthy sports should be encouraged. Boys and girls should be encouraged to get together and form teams. That gives a social side to farm life.

We should lighten the work of the farm woman. She is a drudge if there ever was one. The farm work falls heavier on her. The men go to town. She stays at home with the children. She is given no modern helps in her work.

THE BEST INVESTMENT NEGLECTED
Running water is not installed for her. Instead of helping his wife, the average farmer buys another piece of land. She never is taken to a grange meeting.

The day is coming when there will be laundries in the country just as there are dairies. The washing is the hardest part of a farm woman's drudgery. She catches cold on Monday and is lame all week.

The average country school does not help to fit country boys and girls to enjoy farm life. It teaches everything except what is to be done when school is over. It should not endeavor to fit a few for professional life, but train the great majority for country work.

The country young people must be taught not in terms of brick paving and yards of cloth and foreign exchange. They must be taught in terms of fruit and grain and good roads and sanitation.—Prof. P. G. Holden, before the National Country Life Congress.

The Value of Salt

Salt may be said to be a banana, so many and varied are its uses.

A pinch of salt on the tongue, followed 10 minutes afterwards by a drink of cold water, will cure a sick headache. It hardens the gums, makes the teeth white and proves generally efficient.

By adding a little salt to the water, cut flowers may be kept fresh much longer than usual.

By using very fine, dry salt as one would snuff, bad colds, hay fever and kindred affections may be relieved or cured.

A shallow teaspoonful of salt dissolved in a cup of hot water will relieve dyspepsia, heartburn and indigestion.

Strong salt and water will revive an unconscious person quicker than whisky or brandy.

Salt and water held in the mouth will stop hemorrhage of the gums after tooth extraction.

By washing the mouth and throat with salt and water before and after using the voice, public speakers and singers find their organs greatly strengthened.

Salt and pineapple juice will cure mild cases of gastritis.

Coarse, damp salt sprinkled liberally over fine rugs and carpets and then swept up will clean and brighten them quicker than anything else.

When washing the outside of windows in cold weather use kerosene, and avoid putting the hands in water.

Embroidery Designs

Designs illustrated in this column will be furnished for 10 cents each. Readers desiring any special patterns will confer a favor by writing Household Editor, asking for same as possible after request is received.



631 Design for an Embroidered Edge
Two inches wide.
Three yards are given.



630 Design for Braiding a wide Border and narrow Edge.
One yard of the border five inches wide and two yards of edging one inch wide are given.



628 Design for Embroidering insertion
Two and One-Half inches wide
Two and one-half yards are given.



618 Design for an Embroidered Bag in Envelope Shape.
The work can be done in beads, in solid embroidery or in outline, or cable stitch.



633 Design for Square Collar
To be worked in French knots and satin stitch or with satin stitch and narrow braid.



632 Design for Embroidering a Doyler
Ten and one-half inches in Diameter
One transfer is given.

The Sewing Room

Patterns 10 cents each. Order by number and size. For children, give age, for adults, give bust measure, for waist and waist measure for skirts. Address all orders to the Pattern Department.

PLAIN BLOUSE OR SHIRT WAIST, 7313

The plain shirt waist that is made in mannish style is a smart one for many occasions. Here is a model that is made with the new turned over cuffs and collar, but the collar is adjusted over a neck-band, consequently, if it is not becoming it can be omitted.

For the medium size will be required 3 1/4 yards of material 27, 2 yards 36, 1 1/2 yards 44 inches wide.

This pattern is cut in sizes for a 34, 36, 38, 40, 42 and 44 bust.

GIRL'S TUNIC DRESS, 7319

The tunic dress is one of the newest and prettiest for little girls. This one is equally well adapted to all material throughout and to combinations. In the illustration it is made of a striped voile and the tunic is made on the straight while the skirt is made on the cross, but the tunic could be made of one material with the skirt of another equally well.

For the 10 year size will be required 4 1/2 yards of material 27, 3 1/4 yards 36 or 44 inches wide with 1 1/4 yards of banding. This pattern is cut in sizes for girls of 8, 10 and 12 years of age.

FOUR GORED SKIRT, 7297

WITH HIGH OR NATURAL WAIST LINE
The skirt that is made with inverted plaits at the seams is much liked. It provides the straight lines and slender effect that are fashionable and at the same time it allows freedom for walking.

For the medium size will be required 5 1/4 yards of material 27, 3 3/4 yards 36 or 44 inches wide, the width at the lower edge is 3 yards, 2 1/2 yards when plaits are laid.

This pattern is cut in sizes for a 22, 24, 26, 28, 30 and 32 inch waist measure.

GIRL'S DRESS, 7298

Kimono sleeves that are sewed to the blouse are among the latest features to be found in girls' dresses as well as in those of their mothers. Here is a frock that shows them and that is just as attractive as can be.

For the 12 year size will be required 5 1/4 yards of material 27, 4 yards 36, 3 1/2 yards 44 inches wide with 1 1/2 yards of banding. The trim as shown in the front view, 3/4 yard of all-over lace to make as shown in the back view.

This pattern is cut in sizes for girls of 10, 12 and 14 years of age.



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PRINCE EDWARD ISLAND

KINGS CO., P.E.I.

CARDIGAN BRIDGE, Feb. 5.—We are having fine winter weather at present and good roads. Farmers are busy hauling home firewood, coal and limestone. A large quantity of the latter is burnt every spring for top-dressing for wheat and oat lands. Our winter seasons have been stuck in heavy ice for three days. And the mails are coming by the old reliable Cape route, snow until we arrived on the N.E. side to Cape Traverse on P.E.I. The boats used are something like rowing boats with runners under them. When they come to ice the men get out and pull them like sleds. We will never have continuous communication with the mainland until we have a tunnel. The distance is only eight or nine miles. There are not many fat cattle selling yet, but there are quite a few being fattened for spring market.—H.P.

QUEBEC

COMPTON CO., QUE.

COMPTON, Feb. 10.—We are having very cold and stormy weather at present, but the snow is a welcome sight to the lumbermen and teamsters, as there has not been many snow until very lately. Eggs are very high and are scarce. Pork is 8c to 8 1/2c a lb.; hay, 89c; onions, 50c.—H.G.C.

ONTARIO

HASTINGS CO., ONT.

SIDNEY CROSSING, Feb. 12.—The weather was so severe that there was practically no market. Fresh eggs sold at 6c to 45c; butter, 45c; potatoes, 3 1/2c; hay, 8 1/2c to 8 1/2c; live hogs, 65.50; dead, 89; hams, 8 1/2c; chickens, 9 1/2c to 8 1/2c; beef, 5c for fore and 7c and 8c for hind. The weather has been the most severe in years and has continued so long and steady that what was supposed to look like abundance of feed begins to look slack now.—J.K.

STERLING, Feb. 15.—Under the auspices of the Department of Agriculture a local box packing school was held in Sterling Town Hall on Feb. 12th, 13th and 14th. Messrs. W. F. Kydd of Simcoe, and Leslie Smith of Wellington, Prince Edward County, were in charge, and both were delighted with the large attendance and great interest taken. As many as 50 packers were busy at one time, comprising both young men and old men of various years. The special features of the course were the excellent work of many of the amateurs in main packing and the more difficult work of wrapping and judging of packages. For excellence of their pack the following students secured the ribbons: W. Scott, first; P. Hubbs, second; George Heisman, third. Most of the box packers were students in the Agricultural Short Course.—A.D.M.

PETERBORO CO., ONT.

DOURO, Feb. 15.—Mr Maurice O'Brien has recently purchased from T. H. Hays, Markham, Ont., the imported Clydehead stallion Drumbeig Chieftain (12522) (16,29), bred by Danure James,

the son of the champion sire Burna O'Buchyvie that sold lately for \$7500. His dam is by noted Danure James, bred by the renowned Baron's Pride. Drumbeig Chieftain is a low-set, thick out and would make a tigger in any company. The winter keeper good and sleighing is excellent.—A.L.

WILKINGTON CO., ONT.

PERGUS, Feb. 12.—This is the coldest winter we have had for many years. Most people do not remember of such a cold winter, the mercury being as low as 24 degrees below zero. Turnips and potatoes have frozen in root-houses, where they would not have frozen in any company. There is very scarce and high in price. There are a number of auction sales and all of a number of stock sells high. There are a number of hogs offered for sale at low prices to go west. Beef cattle are high in price. Hogs are rather low. Potatoes are high and scarce, selling at 1.50 a bag; butter, 72c; eggs, 28c.—W.A.M.

OXFORD CO., ONT.

WOODSTOCK, Feb. 13.—We have had a spell of extremely cold weather, but it is milder to-day. The Institute meetings are over. They have been much appreciated, but with not a large turnout as usual on account of the cold weather. Beef cattle are selling very high at present. Not many are feeding on account of shortage in feed. Hens and eggs are selling at 35c on the market in Woodstock.—A.M.M.L.

SIMCOE CO., ONT.

ELMVALE, Feb. 10.—The weather in the district has been extremely cold through out January, and so far in February, the thermometer registering as low as 24 degrees lower than in many years. Feed appears to be sufficient, but prices kept high. Hay, 8 1/2c to 8 1/2c; potatoes, 8 1/2c to 8 1/2c a bag; oats, 50c to 52c; butter, 30c; eggs, 30c.—C.S.B.

MIDDLESEX CO., ONT.

APPIN, Feb. 12.—Cold weather still continues. The thermometer is 24 degrees below to-day. Feed continues scarce and very high. Hog prices are very little in demand to farmers to convert feed at from 1 1/4c to 1 1/2c a lb. into 6 1/4c a lb. It needs summer weather to make the cost of finished product come any where near the price of feed. Outlook does not seem good for the packer. Cattle are very scarce. Half fat stuff is going out for butchers' market. Dairies should have no complaint as to the crop available for 1911.—C. MacF.

ESSEX CO., ONT.

HARROW, Feb. 8.—Hogs are delivered at 85.50 a cwt., but few coming in. One 40 ears of tobacco have been shipped from this point during the past 10 days. Hay is being shipped every week at 10c to \$12 to \$20 a ton. The farmers are taking advantage of the good sleighing to do all kinds of teaming.—W.A.B.

BRUCE CO., ONT.

HEPWORTH, Feb. 9.—We are having one of the coldest winters we have ever had. Snow is very deep, but there has been no trouble in keeping the roads broken so far. Large quantities of hay are being taken out. It sells at 8 1/2c the barn. Hogs sell at 86.15 and there seems to be a lot of them on the count, but there is little in them at that price. Butcher cattle sell at 85 to 85.35.—J.K.

Remember Our Big Orchard and Garden Number Out March 7th



AYRSHIRES

Entire Herd at Auction

W. J. CARLYLE, CHESTERTVILLE, ONT.

Will Sell at Public Auction his Entire Herd of Pure-Bred, Registered Ayrshires, including the Great Cow BUTTERCUP, on

Wednesday, March 13, 1912

The herd includes 25 head. Five of the cows have passed the Record of Performance test with good marks to the good.

Heading this herd is the imported bull **JOHN BAIN ALBERT**, bred by that **FAMOUS SCOTCH** breeder, Robert Wallace. This bull is close to a perfect model of Ayrshire type and is noted for the practical dairy qualities of his get.

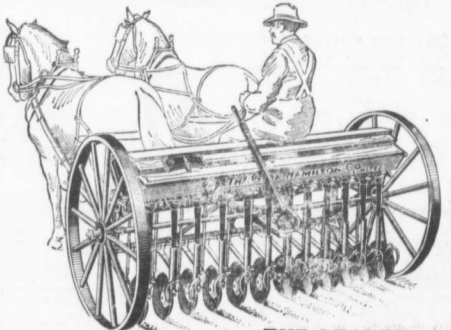
The noted cow **BUTTERCUP** will be on sale. She has a record of 76 lbs. milk in one day, 630 lbs. milk in nine days, an average of 70 lbs. a day. In 294 days, she gave 19,564 lbs. milk—a big record considering that no special effort was made to force this cow.

The other cows in R. of P. have made equally creditable records in their various classes.

Nothing but continued ill-health, which forces me to seek a different climate, could induce me to part with this cattle.

Catalogues of sale giving full particulars will be furnished on application to

W. J. CARLYLE, CHESTERTVILLE, ONTARIO



THE LEADER

More About Discs (Continued)

To get full advantage of the cut the disc makes, the shield must also go well down to the bottom of the disc carrying the seed with it and depositing it in the bottom of the furrow thus opened, and not merely let it drop out at an old way behind the disc. The discs run on chilled bearings provided with dust-proof hard-oil compression cup. These cups hold a large quantity of hard-oil sufficient for thorough lubricating disc bearings in planting many acres. The hard oil stays where it is put, and keeps the dirt out.

Although a Disc Drill is not supposed to be required to sow Broadcast still in all farms there are times when it is necessary to use a Disc Drill, and in order to provide for this the disc can be set at a greater angle so that the earth instead of being merely opened is turned over thus covering the seed which is sown in front of the discs.

If you are going to buy a drill this year be sure and see our Agent; he will be pleased to talk this matter over with you.

The Peter Hamilton Co., Limited, Peterborough, Ontario.

HOLSTEIN

Summer

Present offering all 10 imported bull calf from a from a 29 1/2 lb. record 3-year-old bull and by Sir ... there are 7 cows a ... on the farm.

HOLSTEIN

stired by Prince ... for 7 days and ... 45 A.H.O. daughter ... from dams having ... each at 3 years old ... spring.

LAKESIDE DAIRY

Offers two bull calves one 1 month old, bull calves for the ... W. F. BELL, BR ... Ottawa Bell Phone

Leslie Fair

FOR SALE—Two ... other from a 24 lb ... individuals and ... on both sides. W. M. THOMSON, R. F. ... Holstein Friesian Assoc.

LES OEN

HOLSTEIN—Wanted ... at the pail. Good ... You combine Co. ... Bull and Heifer ... for sale. DR. L. de L. HARPER

AUCTIONEER

Holsteins and selling ... sold sale from the ... RABER, ALBONQU

High Testing

Lynden Holsteins ... 27.7 lbs. of butter ... per cent. fat. ... 438 per cent. fat. ... Buy a bull to be ... him from 7.25 ... cent. fat at 12 years ... Also bull calves ... Within 3 mile of ... S. LEMON, R. F.

RIVERVIEW

Offers bull calves ... SIERED BY KING ... 30.18 LBS. BUTTER ... in 30 days from ... make room. P. J. SALLEY, LA ... 25 Pure Br ... 2 1/2 years of age ... pink of condition. ... Nearly all to be ... sweet bunch of 4 ... or all of them. ... Also Sir Francis ... bull of great qua ... cow whose milk sto ... Trains met at adv ... R. CONNELL, L ... Rural Telephone.

HOLSTEIN-FRIESIAN NEWS

Farm and Dairy is the official organ of the Canadian Holstein-Friesian Association, all of whose members are readers of the paper. Members of the Association are invited to send items of interest to Holstein breeders for publication in this column.

SALE DATES CLAIMED

April 4, 1912: J. W. McCormick, Morewood, Ont., Holsteins.
 March 6, 1912: Nellos and F. Woodley, Boston, Ont., Holsteins.
 March 25, 1912: S. Macklin, Weston, Ont., Holsteins.
 March 27-C. C. Kettle, Wilsonville, Ont., Holsteins and Yorkshires.
 March 14, 1912: G. Forester, Gormley, Ont., Holsteins.
 March 27, 1912: C. C. Kettle, Wilsonville, Ont., Holsteins and Yorkshires.

NELLOS AND WOODLEY'S HOLSTEINS as advertised last week in Farm and Dairy, there will be sold on Wednesday, March 6th, by public auction, 38 registered Holsteins of the best producing families of the breed, though no official testing has been done, individual records have been kept yearly, and we feel sure that were these cows given a fair showing in official work some very good records would be made.

The herd is made up of such cows as Countess Mary Ann, with 42 lbs. of milk

a day at 21 mos. of age, and 71 lbs. a day in two milkings last season and over 10,000 lbs. in 7 months. "Howie's Pounce," now giving from 60 to 65 lbs. a day as a four-year-old. "Alta Steinstara Bess" Imp., with a 1911 record of milk, 1 day, 47 lbs.; 1 week, 397 lbs.; 1 month, 2,312 lbs.; and 11,330 lbs. in 9 mos., having dropped her second calf in 11 months after last freshening. A 3rd calf from this cow is to be sold whose four nearest dams average 84 lbs. milk in one day.

Others are "Countess Daisy Barring" with a two-year-old record of milk, 43 lbs. in a day and 2,311 lbs. in a season; "Louise Howie's Pounce" Imp., with 62 lbs.; one month, 1,567 lbs. and 10,763 lbs. in 10 months, milking only twice daily. Again we have "Maud Schulling De Kol," with 40 lbs. and "Vicky Victoria" with 67 lbs. a day on twice milking. We might also mention "Calumity De Kol Queen" Imp., with 71 lbs. per day and over 10,000 lbs. per season, with a late freshening, and also "Canary De Kol Queen" and "Tidy Albert's Maid" with 53 and 54 lbs. as three-year-olds.

Others might be mentioned with equally large records according to age. In the sale is included nearly all the above mentioned cows with daughters, grand-daughters and sons from the entire herd. We are offering an exceptionally fine set of one, two, three and four-year-old heifers; these heifers are well developed, nicely marked and A-1 good ones. Also a number of yearling bulls well selected and ready for service. These, together with our entire crop of spring calves, which arrive before the sale, go to make up the 38 head which we will positively sell without reserve on March 6th next. All Catalogues ready by Feb. 17th. All trains will be met at Waterford on the forenoon of the day of the sale. Lunch served at noon for those coming from a distance. Sale at 1 o'clock sharp stormy or fine.

RECORD PRICE FOR HOLSTEIN GRADES

Editor, Farm and Dairy.—One of the most important reasons for exhibiting at a fat stock show is to increase sale of stock. The great improvement to our dairying must be attained by the use of pure bred sires for breeding up our grade herds. Hence the sale of stock is a valuable feature of the fair.

At the Ottawa fair, in the dairy test, there was a large number of grades that did extremely well. The Holstein grades swept all before them. They were mostly sired by pure bred sires. The winning 5-year-old grade stood sixth among all the animals competing, and was about six per cent in excess in points of the first pure bred Ayrshire that was in the aged class.

This grade, as well as the first prize in grade aged class, was owned by Mr. Robt. Heron, of Ottawa, who supplies milk to the Ottawa Dairy Co. During the show Mr. Heron sold eight Holstein grades for \$775 to Cannan Farm, St. Lambert, Que. Milk was needed at once to enable this farm to fulfill their milk contract with a Montreal dealer. Cannan Farm also bought another Holstein grade for \$100, and offered \$150 for another. This amount of \$1,025 each for ten grade dairy cows makes the highest price ever paid in Canada to date for such a number.

No such price could be paid for any other class of grades. This shows the general trend of the market in favor of the Holstein as a money-maker. Such cows, many of them producing 712 gallons per day, can be obtained by any farmer out of his present grade stock by simply grading up with a Holstein bull.—F. E. Caine, Montreal, Que.



35 Holsteins

REGISTERED
 and 15 Tamworths
 will be sold

At Public Auction
Thursday, March 7th

By **BERTRAM HOSKIN**, The Gully P.O., Ont.

The Holsteins include 16 cows, 2 two-year-olds, 7 yearlings and 10 bulls.

These are from such noted strains as:—

DE KOL 2nd,—26 lbs. lbs. 9 oz. butter in 7 days, 82 lbs. milk, 1 day. This cow has over 1,000 descendants in the Advanced Registry.

SADIE VALE CONCORDIA,—104 lbs. milk, 1 day; 694 lbs. milk in 7 days; 30 lbs. 10 oz. butter, 7 days; 123 lbs. 10 oz., butter in 30 days; 220 lbs. 8 oz., in 60 days.

PAULINE PAUL,—70 lbs. milk, 1 day; 18,600 lbs. 9 oz., in 1 year; 1,153 lbs. 15 3/4 oz., butter, in 1 year.

WOODBRIDGE BELL,—17,000 lbs. milk in 1 year.

EDDLY MOL,—104 lbs., milk, in 1 day.

DAISY JANE,—77 lbs., 1 day; 13,000 lbs. milk, 1 year. And others, for particulars of which see notes in Gossip, or Holstein reading columns of Farm and Dairy.

TAMWORTHS—6 broods, one boar, one litter ready to wean, all from the best of breeding stock. My swine are known from ocean to ocean in this country, also in the United States.

All trains will be met at Grafton, G. T. R., and C. N. R., up till 12.30 on day of sale. **LUNCH AT NOON.**

CATALOGUES ON APPLICATION.

J. H. DAVIDSON, Auctioneer **BERTRAM HOSKIN, Prop.**
 Cobourg, Ont. The Gully P.O., Ont.

Who Pays The Duty?

Why pay fancy prices for calf meals of foreign manufacture when you can buy CALFINE 15 to 20 dollars a ton cheaper and secure at least equal, and in most cases superior, results?

CALFINE

"The Stockman's Friend"

Has been most carefully experimented with at Macdonald Agricultural College, where it has given excellent results. It is now in use on some of the largest and best equipped dairy farms in the Dominion.

Ask your dealer for a 100lb. bag of CALFINE as a trial—you will soon be back for more. If your dealer does not handle it, write us. We will do the rest.

Feeding directions sent on application.

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 TORONTO, CANADA

Breeders! DO YOU EVER CONSIDER



How Much You Have Lost or how much business you do not get **Because Some One Does Not Know**

you have for sale the stock they want and which they buy from the other fellow who advertises!

Take the progressive, paying way of getting buyers for your live stock—Advertise in Farm and Dairy.

Your advertisement in these columns will cost you only our low flat rate of 80 cents an inch. Send us your advertisement to-day or next issue.

FARM AND DAIRY PETERBORO, ONT.



Holsteins

Great Dispersion Sale

ON
Thursday, April 4, 1912

I will offer at Public Auction my entire herd, consisting of sixty-five head of richly bred, registered Holstein-Friesian Cattle.

I have carefully studied the advantages derived from breeding from high testing and large milk-producing strains, and can now offer to the public a choice lot of animals.

Parties desiring choice individuals to swell their herds or anyone anxious to obtain good foundation stock should attend this sale.

Apply for Catalogues early and as soon as ready a copy will be mailed to you.

For further particulars apply to:

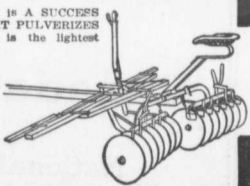
J. W. McCORMICK - BROOKLAND FARM MOREWOOD - ONT.

Prove the "BISSELL" by Its Work

Do the gangs on your Harrow crowd together and raise out of the ground if it is light. They won't do this on the "Bissell." The "Bissell" is so designed that THE GANGS CANT CROWD OR BUMP together no matter how hard the ground may be. Tough soil won't stick the "Bissell." It stays right down to its work and pulverizes the ground thoroughly.

will HAVE PROOF that it is A SUCCESS ON HARD LAND—THAT IT PULVERIZES THE BEST—and that it is the lightest draught.

Post yourself fully on Harrows before buying. We put our name on every Harrow so that you will know it is genuine. Ask your local dealer, or write to Dept "R." for free catalogue.



T. E. Bissell Company, Limited, Elora, Ont.

Farming

has become a specialized business



It's no longer a "hit-or-miss" occupation, where "any old way" is good enough. Farmers are buying pianos and automobiles as never before. They're *living* as well as *working*.

The farmer has learned that it *pays* to employ progressive methods. That's why he is ever ready to receive helpful suggestions for improving his crops, his land and his home. It's also the reason that more than fifty thousand Canadian farmers are enthusiastic about our handsome book,

"What the Farmer Can Do With Concrete"

It isn't a catalogue, nor an argument for you to buy something. It is clearly-written, interesting, profusely illustrated. It describes the various uses to which concrete can be put on the farm. Not theories, but facts, based on the *actual experience* of farmers all over the continent. It is the most complete book on the subject ever published, fulfilling the

purpose behind it, which is to help the farmer take advantage of concrete's possibilities. The list of subjects covers every conceivable use for concrete on the farm. The book's actual value to you will far exceed the list price of fifty cents, but if you will send us your name and address at once we'll be glad to

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