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FARM AND DAIRY

RURAL HOME

PETERBORO, ONT.

FEBRUARY 29

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PLEASANT MEMORIES FLOCK IN ON US AT THE SIGHT OF THIS ILLUSTRATION

There is something satisfying in the sight and possession of a wood lot, other than the mere monetary value of the timber and wood. This "something" is not to be lightly passed over; it is that for which the Easterner gone West ever longs, and it is the cause of many a mortal being content where trees and woodlots abound. Of course the real value of the woodlot is its main asset. Would that it were more thoroughly appreciated. Scarcity of wood and the ever rising price of coal, together with the increasing demand for all kinds of lumber, are bringing about a greater appreciation; they make it worth while giving more thought to the wood lot and so managing it that it will yield its annual harvest, be preserved in perpetuity, and grow increasingly valuable. Our illustration this week shows a cull tree on the farm of Wm. Battie, Huron Co., Ont., being worked into stove wood.

DEVOTED TO
BETTER FARMING AND
CANADIAN COUNTRY LIFE

FARM AND DAIRY & RURAL HOME

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FOR WEEK ENDING FEBRUARY 29, 1912

No. 9

NOTES ON THE FARM PRACTICE OF A PRIZE WINNING FARMER

A Beautiful Home the First Consideration. Dairy Cattle Replacing Calf. Hogs are Among the Money-Makers. A Splendid System of Farm Accounting Enables the Owner, Mr. Chris Howson, Peterboro Co., Ont., to Direct His Farm Work to the Best Advantage.

THESE are many points worthy of emulation in the farming practice of Mr. Christopher Howson, of Peterboro Co., Ont., whose farm secured third prize in District No. 3 of the Interprovincial Prize Farms Competition conducted by Farm and Dairy. The value of tile drains is appreciated; the orchard is one of the best on the competing farms of the district; a start has been made with alfalfa and an excellent system of farm accounting is kept. But the point for which Mr. Howson deserves particular credit and the feature of his farming that would attract first attention from a visitor or passerby is the care that he has lavished in making beautiful the surroundings of his farm home.

Mr. Howson has taken advantage of the opportunities that the country offers for beautifying his surroundings. The first impression that one received on approaching his farm is pleasing. A splendid row of maples extends along the whole front of his farm. Around the house itself, ornamental trees and shrubs are nicely arranged and attended to with the care we would expect a financial king to expend on his country place. Even in the back yard, so often neglected in country homes, the ground has been levelled, the grass clipped short with the lawn mower, and neat hedges surround it. Mr. Howson believes that the object of all farm practice is to establish a home that is worth while living in; and he puts his belief into practice.

SOIL EXTRA GOOD

Mr. Howson's farm contains 100 acres of very rich clay loam, situated on a good road 10 miles from the city of Peterboro and three miles from the village of Keene, which is their shipping point. Most of his farm is quite level and laid out in large easily worked fields. Part of the farm is on an elevation, and on this is the orchard. The low parts of his farm have been tile drained, and more tiles are being added each year. The buildings are very conveniently situated near the centre of the farm and crops can be drawn in with a minimum of labor.

Beef cattle had always been a specialty on this farm but recently dairy cattle are in favor. "We are going into Holsteins," said Mr. Howson's son, Herbert. "We have been breeding Durhams but there is more money in dairy cattle than in beef." Mr. Howson's dairy herd consisting of 10 cows are of the big, deep-bodied, heavy milking kind. Most of them are Shorthorn grades. One cow gave 32 lbs. of 5.2 per cent. milk in a day when fresh, but Mr. Howson is working for higher production. Records are kept of the individual production of each cow and a lot have been sold off and better ones gotten. In order to get first class milkers, however, it has been found that they will have to breed their own heifers to replenish the herd and a pure bred Holstein sire from good producing stock now heads the herd. Swine occupy a prominent place among Mr.

Howson's income makers. At the time that the farms were inspected in July, there were 62 pigs on hand. Mr. Howson purchases a large part of it hauled from the factory in a tank wagon which run directly from the tank into the troughs. The pigs are thus fed with a minimum of labor and, as the whey can be purchased for a small amount considering its feeding value, pig feeding is found profitable. In the winter the breeding stock is kept in a pen near the buildings. In order to make the sows take exercise, their sleeping quarters are in one building and their feeding



A Beautiful Home Here Receives First Consideration

Mr. Chris Howson, whose prize winning farm is described in the article adjoining, has as attractive a home as one could wish. Ornamental shrubs, flower beds and trees over all, give the grey stone house a setting that is very pleasing to the eye. Read more about Mr. Howson's farm and home on this page.

quarters in another located at some distance from the house.

The horses kept are of good heavy stock; none of them are pure bred. Nine horses, two of them brood mares, do the farm work and in addition, at the time of our visit, were four colts.

CONVENIENCES IN THE STABLES

The main barn is 100 by 30 feet with an "L" 28 by 45 feet; there is a basement under the whole. At one end of the basement of the main barn is the cow stable, 30 by 50 feet. A litter carrier runs through the horse stable and cow stable, and then out into the yard where the manure is either piled neatly or dumped directly in the wagon. This makes the cleaning out of the stables a comparatively easy operation. Ventilation shafts run from the stables to the cupola on the roof. The pig pen and hen house are also in the basement of the barn but so well separated from the stable that no bad odors reach the cows. Grain chutes and hay chutes are so arranged that feeding can be done with a minimum of labor.

The implements of which there was a good supply, were carefully housed in a drive shed 24 by 50 feet. A feature of the buildings that must be mentioned, is the well equipped work shop where all repairing of machinery, harness, etc., is done.

The soil on Mr. Howson's farm is naturally very rich and his crops are good. The grain crops of barley and oats were particularly good, and the 11 acres of fall wheat was one of the best fields seen by the judges. Owing to the large area devoted by Mr. Howson to grain and the limited area in hoe crops, a few weeds such as perennial sow thistle have gained a foothold. The rotation of clover, one year, pasture one year, and grain two or three years, does not admit of dealing with weeds to the best advantage. The hoe crop consisted of one and one-half acres of mangels and one acre of potatoes. Ten acres of alfalfa had been seeded with a nurse crop of barley and a fair catch had been secured.

Mr. Howson's orchard consists of four acres of such standard varieties as Rhode Island Greening, Spy, Baldwin and Russet. The returns in some years run over \$100 an acre. The land is plowed each spring and manured every three years. No crops are taken off the orchard except apples.

ACCURATE ACCOUNTS

If any department of this farm were not paying Mr. Howson would soon find it out. The strict accuracy of Mr. Howson's accounts may be illustrated by reference to his poultry records. He was able to tell the judges just how much grain, and of what kind, the hens had eaten in a year, the market value of the grain, the number of dozen of eggs sold and their value, and the number used in the house and their value. Similar accounts are kept in the dairy herd, the swine and the orchard. The various grain crops, too, are kept tab on, and cost of production and profits determined. Such full accounts as these are not kept with each department of the farm every year, but at intervals, and the information obtained is applied to the crops produced in the intervening years. Mr. Howson does not find the keeping of accounts troublesome. The satisfaction of knowing just what he is doing and the knowledge that he is following the lines of greatest profit, outweighs the work involved in keeping his account book in order.

The attention to detail that Mr. Howson applies to his accounts is applied to every department of his farm. Not the minutest detail that will add to profit or the attractiveness of the homestead, is neglected. "Success is the result of attention to details," say the wise ones. If so, Mr. Howson's success as a farmer can be easily explained.—F. E. E.

Testing now is as easy as the proverbial rolling off a log, and every owner of a milking herd should test in some form. If some farmer-dairyman were to see me making purchases and in every case handing my purse to the seller for him to help himself and return what he chose, they would think me a fit candidate for the insane hospital; yet those same men will feed out good money to their cows and allow a part of those to so short-change them on the milk yield that the profit on the whole herd is nil.—Malcolm H. Gardner, Delevan, Wis.

HOW FARMERS HELP TO CREATE CITY LAND VALUES

ARTICLE NO. 12.

In previous articles we have shown how the city land owner, by increasing the rents he charges, increases the cost of doing business in our cities. It has been shown also how we farmers are forced, to pay a large proportion of these increased rentals through the higher prices we are made to pay for those things which we need that are made in the cities, as well as by the increased commissions the middlemen in our cities charge for handling our farm products. This they do in order that they in turn may pay the increased rentals they are charged. We have not shown as yet, however, except indirectly, what makes land values in the first place and how they increase until small areas of city land become worth, in some instances, millions of dollars an acre.

HOW LAND VALUES ARE MADE

Let us suppose that a township of prairie land is suddenly thrown open by the government for settlement. Let us further suppose that it contains 100-acre farms, worth \$30 an acre, or \$2,000 each, and that these farms are all settled within the course of a few days. These new settlers will be domiciled on their farms but a brief period before they will begin to look for the most convenient point at which to locate a post office. Having found it—it will be located, most likely near the center of the township—they in due course petition the government for an office, and one is located there. What is the result? Every farm adjoining that post office is increased in value, as compared with the outlying farms in the township by at least one dollar an acre, or to \$2100 each. Why? Because the men living near the post office will only require to step across the road, or at the most to go but a few rods, to obtain their mail, while the farmers living farther back may have to drive several miles to secure theirs. Thus the farmers near the post office will have the benefit of possibly a daily mail, with its consequent advantages of daily papers and daily market reports, while the outlying farmers may not receive their mail more than once or twice a week. Farms a mile out may be increased possibly 50 cents an acre each, or to \$2050 each, by the location of the new post office, and other farms still farther out by 25 cents an acre, or to \$2025. The farms the farthest removed from the post office may not have their value increased at all.

A VITALLY IMPORTANT POINT

Notice, here, this vitally important point: The farms near the post office did not increase in value because of anything the farmers living on them did. They increased in value automatically when the farmers of the township at large decided to locate the post office near them. Thus the increase in their value was created by the community at large and not by their owners. But under our existing system of taxation the men living on them derive all the benefit without doing anything more to deserve it than any other farmer in the township has done.

FURTHER VALUES CREATED

Notice now, also, what happens. As soon as the site for the post office has been decided upon it becomes evident that that point is going to prove a center for the farmers of the township. Thus it is not long before a general store is opened there. Again the farms immediately adjoining jump up in value, a dollar or so an acre or to, say, \$2200 each, while the farms farther out, as before, increase in value only in proportion to their nearness to the post office and store. Their increase in value is caused by the fact that men would willingly pay \$100 to \$200 more for farms possessing such advantages than they would for farms three or four miles out, even although the latter may comprise equally as good land. It is manifest, of course, that the general store is opened to catch the trade of not the few farmers only who live near by, but the trade of all the farmers of the township. Notice, again, that the farmers living on the nearby farms are once more enabled to reap the benefit of a hundred dollars of increased land values without having done anything more than anyone else to earn it.

And so it goes on. If the section is a good one, as we will presume that it is, it soon happens that a blacksmith shop is opened, to be followed in rapid succession by the erection of a hotel, school, livery stable, church, grist mill, planing mill, newspaper office, and the numerous other industries that go to make up a thriving town. And as each new industry is established up goes the value of the land, not only of the village or town but of the nearby farms as well. In process of time, if the farmers of the township become prosperous and additional farmers settle in other townships farther back, the competition for their trade increases; new business concerns seek to become established; railway stations are opened, grain elevators are erected and abattoirs and markets are started. All this increases the value of the land adjoining. It rapidly doubles, triples and quadruples in value. Should this land happen to be located on one or two farms the farmers who own them soon become worth thousands and scores of thousands of dollars. And yet they have earned but an inconsequential fraction of the value, which the general community has conferred on their land. Nevertheless, they get all the benefit. The community gets none. Nay, more! The men who own such land, make such excessive charges through the rentals they demand for its use, the cost of doing business on it is vastly increased and the public at large has to pay the bill.

LAND SPECULATION

But this increase in land values creates another evil. Because men see that the land in all growing centers is certain to increase in value, they buy and speculate in it. This land they hold idle waiting for it to increase in value with the anticipated increase in population. Thus, where land is in the greatest demand large sections of it are held out of use. It has been estimated that one third of the land within the limits of the city of Toronto is standing idle while land on the outskirts of the city is being held at \$1,000 to \$2,000 an acre. Farm land several miles out from the city is being held at values ranging from \$300 to \$500 and \$600 an acre. Similar conditions exist around all our growing centers, such as Montreal, Ottawa, Winnipeg, Edmonton and others.

THE REMEDY

There is only one remedy. Other taxes should be reduced, and land should be taxed by the province, and even by the Dominion, according to its value. Then the community at large will receive back through the taxes this land will pay most if not all of the wealth which is given to it by the community. When land is taxed according to its value one acre of city land worth \$1,000,000 an acre, will pay as much taxes as 10,000 acres of farm land worth \$100 an acre. Men then will not be able to speculate in such land. Instead, they will have to put their land to use by building on it instead of holding it idle. This will tend to reduce rents and thus decrease the cost of doing business in our cities. It will create more work for the working men. It will reduce the cost of making those goods that are manufactured in the city and which we farmers have to buy. It will tend to return for the

benefit of us farmers much of the wealth which we create but which is being drained from the country districts into our towns and cities for the benefit of the city land owners. It will tend to equalize—as we hope to show more clearly in future articles—between the city and the country the burden of taxation which now falls with undue severity on us farmers, and which is one of the chief reasons for the depopulation of our rural districts.

Should Cows Face Each Other?

N. C. Campbell, Brant Co., Ont.

Should cows face each other? We would say no, by all means. In farm and Dairy of February 15th I note an article from Mr. A. C. Kuhn of Waterloo county in which he strongly advocates having the cows in two rows facing each other. Mr. Kuhn recognises some of the arguments that might well be advanced against his system of stabling but passes them over with a mere mention.

We will admit that there are arguments in favor of every system of stabling, but from the standpoint of the health of the animals and the necessity of a good distribution of fresh air in the stable we believe that the cows should face out rather than in.

DANGER OF DISEASE INFECTION

Mr. Kuhn mentions the danger of animals contracting diseases from one another, but suggests that a wide passage between the rows of cows would overcome this difficulty. One of the most serious problems which we dairymen will have to face and are facing is that of tuberculosis. It is estimated that 12 per cent. of the cattle of this country are infected with this disease, and in many herds where the owner never suspects it, it may be that every cow will react to the tuberculin test. In planning our stable, therefore, we should avoid even the appearance of evil and give the cows no opportunity to infect each other. Even if the sputum will not be blown across a 10-foot passage, there is danger of it being tramped across by the attendant or thrown across in forage, and this should be avoided.

Mr. Kuhn has overcome the problem of ventilation to a certain extent by installing the King system of ventilation and conducting fresh air into the centre of the stable. But we must take things as we find them. In the great majority of stables in this country, fresh air is admitted through the doors and windows at the side and for years to come there will be very few stables fitted with a complete system of ventilation such as advocated by your correspondent. Consequently if the cows face each other they will be breathing air which is unhealthy and may be laden with disease germs. The width of the central passage will do little to prevent infection in a case such as this.

DIFFERENCE IN LABOR NOT GREAT

We are perfectly ready to admit that so far as labor is concerned the argument is in favor of having the cows face each other. This, however, is often a matter of a man's own mind. If his feeding rooms are located at the end of the stable it is a little more trouble to feed the other way, and after all there is a considerable amount of work between the cows in the way of cleaning out manure, bedding, etc.

Another advantage in favor of my system of stabling and one that is strongly evident where one has boys or hired help to do the work, is that the boss has a much better chance to keep his eye on everything and keep down all fooling on the part of the boys or carelessness on the part of the hired men while milking. We have found that this argument counts for far more than one would think. It is advanced as a result of our own practical experience.

Cost of Feeding a Cow

C. F. Whitley, in Charge of Records, Ottawa

How much does it cost to feed a cow? The following query from a Farm and Dairy subscriber has been submitted to me for an answer.

"Mr. Chas. F. Whitley states in Farm and Dairy that it is necessary for a cow to produce 4,000 lbs. of 3.5 per cent. milk to pay for her keep and before a cent of profit is forthcoming to the farmer. Will you kindly advise your readers upon what rates of wages, prices of feed, and price of milk is this statement estimated?"

As a basis for a reply to this query, may I say that my statement was qualified by the introductory phrase "If we agree that the cost of feed cannot be put lower than \$40." As a matter of fact, it is extremely difficult to arrive at the average cost of feed.

WIDE VARIATION IN COST OF FEED

For instance, many farmers in Quebec claim that it costs them as low as \$27 and \$25 to feed a cow for a year, and still show a profit on the feed of \$12. Again, farmers in the vicinity of Ottawa claim that the cost of feed of some cows will run over \$100, and they claim a profit over the cost of feed. I do not think that in either case any estimate is made of wages or depreciation and so on. I did not make any estimate of wages, but struck what may be considered a fair cost of feed and estimated the average price of milk at \$1 a cwt.

The most exhaustive statement that I have ever come across in searching for reliable information on this point is that published by Prof. Fraser of the Agricultural Station, Urbana, Ill. His "Index of Keep and Profit" gives a comprehensive statement for the 4,000 pound yield. (See table published herewith.) Readers will observe that item No. 17 shows a loss of \$4.19 on the year's transaction, simply considering that skim milk, calf, and manure pay for labor, interest, and depreciation of cow.

Then if we figure 4,000 lbs. of 3½ per cent. milk, the value of butter fat on Fraser's estimate of 27 cents a lb. would be \$37.80, and he estimates the cost of feed at \$38.

ROOM FOR INVESTIGATION

This whole subject is worthy of far more attention than has apparently been given to it by any group of farmers or by Government investigation. Nearly every estimate of cost that I have seen, and I have certainly seen a very great many, differed in some particular or other from the estimate of the next man. It would be an interesting question to see if we could arrive at an actual basis of cost based, for instance, on the Feed Unit System of Denmark, instead of the various feeds as commonly used on Canadian farms.

I quite recognize in any discussion of this kind the outstanding fact that a great deal of money has been made out of dairying with cows that do not produce much over between 3,000 or 4,000 lbs. of milk a year. At the same time, this must be reckoned as the gross income from which no expenses have been deducted, and any real inquiry into the situation would probably result in showing that at best a fearfully small return per hour has been made by the farmer (including very often his wife and family) for the labor that has been bestowed on the cattle.

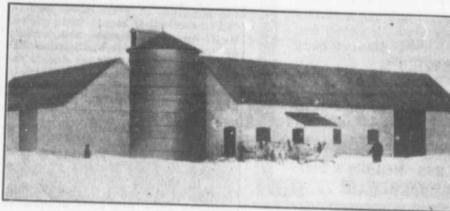
We do not plan to have the colts come until the mare is on grass. She is then in good condition and the grass increases the milk flow, and

if the mare's bowels are right, the colts will be also.—Henry Glendinning, Victoria Co., Ont.

By having cows freshen in the fall instead of in the spring, from 25 to 50 lbs. of butter fat may be added to the production of each cow each year. This is a point in the management of a dairy farm that should receive our attention.—A. L. Kinnear, Waterloo Co., Ont.

Jottings For Farmers

If your cattle are not making satisfactory re-



What Dairymen Need Fear a Long Winter with a Silo Such as This?

Well provided indeed to meet the demands of the long Quebec winter is Mr. Daniel Watt of Chateaugay Co., Que., the buildings on whose prize winning date dairymen's showing list; the time is approaching when a siloless farm will storage room, and as a labor saver we can't afford longer to ignore the silo.

turns for feed this winter, do not decide that it does not pay to feed well; as they will no doubt make better returns next summer, and even next winter, for having been fed well this winter. Animals must be kept in good condition all of the

What Profit in a 4,000 lb. Cow?

1. Value of cow at first freshening	\$40.00
2. Value of cow for beef at end of life	27.00
3. Difference or depreciation during lifetime	13.00
4. Pounds milk produced	4,000
5. Pounds skim milk, 35 per cent. of whole milk	3,000
6. Value of skim milk at 20 cents	\$6.00
7. Value of each calf	3.50
8. Value of manure at an average price of \$1.50 a ton	14.50
9. Total value of skim milk, calf and manure	24.00
10. Cost of labor	18.00
11. Interest, taxes, insurance and repairs on barn	4.00
12. Interest, depreciation on cow	2.00
13. Veterinary service, medicine and spraying materials	3.89
14. Depreciation on dairy utensils	.40
15. Total expense of labor, housing, service fee, interest and depreciation on cow and utensils	39.99
17. Dose skim milk, calf and manure pay labor, interest and depreciation on cow's food	4.19
18. Pounds butter fat in 4 per cent. milk	150
19. Cost of butter fat at 27 cents a lb.	\$41.25
20. Cost of feed of cow	38.00
21. Profit from butter fat over feed	3.25
22. Total year's profit a cow	1.01

time, in order to give profitable returns.—P. O. Kimball, Hastings Co., Ont.

You must give the right cultivation. I have seen corn growing after all other kinds of crops, but the best crop to follow after with corn is pasture; clover sod is just as good and pastured clover sod is the best of all. We have 15 acres of land that we pasture every year it is in sod. It is a mixture of clover and alfalfa. We pasture it one year and then sow corn on it, and we have never failed to have a magnificent crop of corn from that field. We have six acres where we grow clover one year and the next year corn. We also have about 30 acres on which we grow hay every second year and then grow corn, and we always secure a good crop from that. Where we grow corn after stubble, however, unless we have grown clover at the same time as the grain, we have very unsatisfactory results. I say, therefore, that the best place in the rotation for corn is after pasture or after clover hay, and if you cannot do that, then put the corn in after hay.—J. H. Griadale.

Dairymen Are All Interested

Malcolm H. Gardiner, Delevan, Wis.

The reports of the records made by Holstein cows, on publication in the dairy papers, are read by more or less farmer-dairymen or are either new subscribers to the dairy press or happen to read it out of curiosity, not considering that the subject matter in any way concerns them or that it can be of any use to them. But is the assumption true? Is the man, who after a hard day's work sits down to rest himself by milking eight or 10 of his own cows, or the man who in these days of high wages hires others to milk for him, interested in getting the largest possible profit from his herd?

Suppose the herd is composed of scrubs or grades, there is an average for the herd, and a part of the cows are above and a part below that average. With labor and feed so high, the net profit on an ordinary herd is little enough at the best; which means that the average of the herd pays little profit. Now if the average for the herd pays little, some cows below the average must pay less and some even cause a loss; but the fact that the average pays shows that there are some good cows in the herd. Every cow keeper runs a boarding stable. As the first step towards profitable

cow keeping, it is up to the owner to "size up" his herd—to learn which cows are paying fair to good prices for board and lodging, which are just paying for the food consumed, and which are even beating him out of a part of their board bills.

There is but one way to learn this, and that is by means of the scales and the Babcock test. All that is required in addition are some pint fruit jars, each with the name of a cow pasted on; a 25 cubic centimetre tube or an ordinary glass tube called a milk-thief, and some corrosive sublimate tablets. The jar is to hold the composite sample, the tube to take that sample, and the tablet to preserve it. It is not absolutely necessary to weigh the milk all the time, although it would be better; for if a man will weigh for but three days near the middle of each month, get the average for one day, and multiply by the number of days in the month, he will know very closely how much milk each cow has produced during the month. Then if during these three days he will take a sample from each milking for each cow, and either test those samples himself or take them to a creamery and hire the butter maker to test them, he can learn the average per cent. fat in the milk of each cow, and so compute the fat for all of the cows.

BANK PAPERS

When he has tested for one lactation period and made the acquaintance of the individual cows in the herd, he is likely to conclude that Spot and Brindle could give pointers on putting up a front to any confidence man, and to wonder whether he had better wait for the cow-buyer to come along, or offer them to neighbor Smith, who buys on looks, never tests anything, and so would never know the difference anyway. Having found that he has been a mark from the cow standpoint for years, he will have little confidence in himself, and none whatever in any cow till she has proved to him through test that she is making good. He will take an interest in test work of all kinds, and will begin to think about obtaining the use for his best cows of neighbor Jones' Holstein bull, whose dam, he hears, has a 30-day official record of 2,400 pounds of milk containing 84 pounds of butter-fat.

The Feeders' Corner

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

Something Farm Animals Crave

All farm animals have an instinctive craving for salt. But if it is so placed as to be away within their reach, they will consume just as much as they need, and no more. It is only when it has been kept from them for a long period that there is danger of their eating too much. It is therefore an excellent practice to keep it in a box or boxes where they can have access to it whenever they desire. When they are salted, as is the practice with many farmers, only once a week, while some may get enough, others may suffer from a deficient supply.

Salt promotes an active circulation of the blood, which never becomes thick and sluggish so long as the supply is plentiful; it assists digestion, and is often a preventive of disease. It is so cheap that no stock-raiser can really afford to deny to his animals all they want of it.

Cheapest Grain Supplement

What is the cheapest grain supplement to course forage at present prices?—O. W. M., Middlesex Co., Ont.

With so little information it is difficult to give definite advice as to what grain feeds could be purchased to best advantage to supplement course forage. At prices which prevail at most centres in Ontario the highly concentrated and high priced feeds are the cheapest. Cotton seed meal or oil cake meal are either one much cheaper than bran but cannot be used alone in large quantities, as they are too heavy and form an indigestible mass in the cow's stomach. For every pound of this heavy feed it would be advisable to feed one or two pounds of bran or chop. Cotton seed meal is worth practically twice as much as bran for dairy cows and oil cake is not far behind it in feeding value. Gluten meal is worth half as much again as bran. With these relative values as a guide, it will be possible to determine which feeds are the cheapest to purchase.

Purchasing Concentrates

Please give me a ration for milk cows. I have lots of well cobbled corn ensilage and lots of roots, with some peas and oat hay. I will have to purchase concentrates to balance the ration, which cost as follows: Bran, \$26; gluten meal, \$28; cottonseed meal, \$24; molasses meal, \$35; shorts, \$26; oilcake, \$27; and oats, \$6 a bushel. Can a suitable ration of these be made up without hay? What is the composition of well cobbled corn ensilage and of ensilage put in soft?—E. B., Oxford Co., Ont.

At the price that you name, cottonseed, gluten and oilcake meal are the cheapest concentrates. Fed in proper combination, cottonseed meal is worth twice its weight of bran for dairy cattle and gluten meal is not far behind it in feeding value.

A ration can readily be composed of these feeds without hay, although it will necessarily be somewhat expensive. For dairy cows giving 25 to 40 lbs. of milk daily we would suggest a ration of 30 lbs. corn ensilage, 10 lbs. of roots, 16 lbs. peas and oat hay, four pounds of bran, two pounds cottonseed, two pounds gluten meal and one pound oilcake. The heavier feeds, although the cheaper, have to be mixed with bran in order to be properly digested. As cows give

smaller quantities of milk the grain ration can be reduced accordingly.

Well cobbled corn ensilage analyses 20.9 per cent dry matter; 9 per cent protein; 11.3 per cent carbohydrates, and 7 per cent fat. It is impossible to say just what soft uncobbed ensilage would analyse. Corn makes practically all of its growth during the last month or two, and the change of composition during just a few days is very great. Corn on which cobs have not formed at all is hardly worth putting into the silo.

As Australians See It

The advantages of dairying have been epitomized, as below, by H. W. Potte, of the Hawkesbury Agricultural College in Australia:

1. It takes less fertility out of the soil than any other form of agriculture, and hence it is useful in following a well-regulated system of rotation.

2. It can be combined readily with other forms of agriculture or horticulture.

3. The dairy provides in winter a quantity of stable manure in which the straw from the barn is profitably utilized.

4. The by-products from the cow, skimming-milk, whey, and buttermilk, are a source of income in raising pigs and calves.

5. Dairying gives constant and regular employment of a high character to every member of a farmer's family.

6. Dairying inculcates habits of punctuality, industry, cleanliness and thrift in the farm.

7. Cheese and butter are condensed products, and the cost of carrying, in comparison with their value, is less than that of any other farm product.

8. The demand for good butter and cheese on the world's markets is unlimited, and so long as the quality is maintained, an all-round, even and profitable price can always be secured.

9. The monthly cheque from the factory provides the mainstay in the household, as against the precarious returns from yearly crops.

10. In mixed farming, the income from the dairy is the most reliable.

11. The farmer's household, as a result of dairy work, is always supplied with fresh milk and cream, butter, cheese, pork, bacon and veal.

12. Storekeepers, traders, bankers, financial men and politicians all fully realize, after years of experience, that wherever dairy farming is conducted farmers are more prosperous, mortgages are rarely found, and the value of landed property becomes considerably enhanced.

Dairy Notes

Ten days or two weeks is not too much to feed the calves whole milk.

There is only one absolutely satisfactory way of judging the cows—by the scales and Babcock tester.

The shallow-bodied cow need not be expected to produce much milk. It has not the manufacturing capacity.

If we are to develop the dairy cow to the point of greatest efficiency we must furnish her with the best equipment and inheritance necessary.

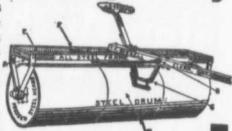
The good udder is the one that comes well up on behind and ends in a point on the belly. The narrow udder is an udder of small capacity.

What are the three main requisites for a good dairy cow? We should say that they are: stamina, capacity for assimilating food and well developed organs for milk production.

The amount of butter fat that a cow produces is not more important than the amount of money it takes to produce it. It is not always the biggest producer of milk that makes the most money.

"Bissell" rollers are a speciality

The "Bissell" Rollers are built by men who have made a life study of this work, and are SPECIALISTS IN THE BUSINESS.

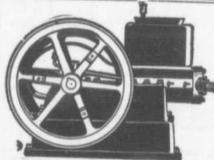


Search as you may, there are no such perfect Land Rollers on the Continent as the "Bissell." Make a note of these points and compare the "Bissell" Rollers with any other Land Roller in America. If the "Bissell" does not convince you that it is the best Roller, then don't buy, but you ought to know the facts, and it will do any person good to make the comparison. No need to send special travellers to sell "Bissell" Rollers. Practical farmers see the difference and prefer the "Bissell."

The 18 cold rolled anti-friction Bearings 1/2 inch thick with lathe cut ends, held in the one piece Malleable Iron Cage, is a single point placing the "Bissell" Roller away ahead.

Look for the name "Bissell" on every Roller. No other is genuine. Ask Dept. R for free catalogue. T. E. BISSELL CO., ELORA, ONT.

Remember Our Big Orchard and Garden Number—Out March 7th



This \$15 Down and balance in easy instalments Engine 15

IT IS EASY TO BUY the wonderful Gilson "Goes Like Sixty" Powerful, simple, durable, dependable, cheapest running, easiest to operate of any engine made. A positive guarantee—given with every engine. Ten days' trial—if not satisfactory, hold subject to our shipping directions, and we will return every cent of your first payment. Can anything be better? Made in Canada—no duty. The Gilson engine. Ask your banker about our reliability; founded 1850. Tell us just what work you have for an engine to do and we will name you price and terms on the proper horse proportion. All sizes. Send for free catalogue. Big money for Agents—write for our GILSON MFG. CO., Ltd., 101 York Street, Guelph, Ontario, Canada

Are you anxious to save Time and Money on the Work you are doing on your Farm at present and to get Larger Crops from your Farm or Orchard? If so, let us send you Free of Charge your Pamphlets on the use of

STUMPING POWDERS

USED FOR

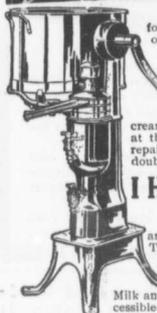
- REMOVING STUMPS AND BOULDERS
- DIGGING WELLS AND DITCHES
- PLANTING AND CULTIVATING ORCHARDS
- BREAKING HARD PAN, SHALE OR CLAY SUBSOILS, Etc., Etc.

Figure yourself what Clearing your Farm is costing now or what you are losing in crops through not clearing

Write Us About Arranging Demonstrations

CANADIAN EXPLOSIVES, LIMITED
MONTREAL, P.Q.

How Much Does it Cost By the Year?



The first price of a cream separator is no basis for figuring its cost. Suppose you paid \$2 for a pair of shoes which, with \$1.00 worth of repairs, lasted 12 months, making an average monthly cost of 25 cents. At another time, you paid \$3 at the start, only 50 cents for repairs, and the shoes lasted 24 months—an average cost of less than 15 cents per month. Which was the better buy?

The same principle holds good in cream separator buying. You may pay a low price at the start—but such a separator will need frequent repairing—and won't last. The cost per year will be double that of a good separator.

IHC Cream Harvesters Dairymaid and Bluebell

are famous for their durability. Their skins close and run easy for years. They are built for long, hard, steady service. Here are some of their advantages:

Milk and dust-proof gears which are easily accessible—a feature found on no other separators; a patented dirt-arrester which removes the finest particles of dirt before the milk is separated; frame entirely protected from wear by phosphor bronze bushings; large shafts, bushings, and bearings.

IHC Cream Harvesters are made in two styles—Dairymaid, chain drive, and Bluebell gear drive—each in four sizes. Let the IHC local agent tell you all the facts, or, if you prefer, write nearest branch house for catalogues and any special information you desire.

CANADIAN BRANCHES—International Harvester Company of America at
Brandon, Calgary, Edmonton, Hamilton, Lethbridge, London, Montreal, New-H, Buffalo, Ottawa, Regina, Saskatoon, St. John, Weyburn, Winnipeg, Yorkton.

International Harvester Company of America
(Incorporated) Chicago U.S.A.



HORTICULTURE

Orchard Queries

My soil is clay loam, inclined to be heavy, with hard pan bottom. I have been using clover as a cover crop until two years ago. The trees are beginning to shade the land so much that it will not grow satisfactorily. I followed this with buckwheat and at present have the land in rape. The yearly growth is from about eight inches to one foot. The color of the fruit is not good. It is just possible that I may cultivate a little too late in the season, not allowing time to ripen properly. I cultivate as long as I can drive under the trees without injuring the fruit. What is the best fertilizer to be applied?—A. L., York Co., Ont.

Infer from the statement made in your inquiry that clover does not now make satisfactory growth in your orchard and that the trees are planted closer together. If such is the case, steps should be taken to remedy this condition of affairs.

Northern Spy trees in your section of country should not stand closer than 35 feet, and 40 feet is generally considered to be a safer distance. It is just possible, too, that the tops of your trees are too dense and simply require thinning out in order to admit light. This thinning out operation is best done from a ladder, beginning at the outside of the tree and working around, using a pair of hand clippers or a small hand saw. The idea is simply to thin out the branches sufficiently to admit light to the center of the tree and to all the remaining branches.

I see no reason why the character of the soil or the treatment it has received should necessitate the application of any material for the purpose of adding color to the fruit. I am quite aware, however, that grow-

ers often use potash, either in the form of muriate or sulphate of potash or wood ashes, for the purpose of adding color. This may or may not be necessary on your soil. I would suggest that a test be made, applying from one-half to one bushel of wood ashes per tree, or four or five pounds of either of the commercial materials. These should be applied over the entire surface of the soil and worked in.

I doubt if you are safe in cultivating much in your section after the second week in July. The difficulty may lie as you suggest, in the fact that cultivation is kept up to a somewhat late date.—Prof. J. W. Crow, O.A.C., Guelph, Ont.

Horticultural Notes

The taste for good fruit may be even cultivated that it will be had, as well as a larger price.

Do not try to raise cauliflowerers on poor soil. Cauliflowerers need plenty of nitrogen and humus to retain moisture.

Young trees should not be trimmed too liberally, as too much foliage taken from the tree weakens its feeding power.

There is no objection to selling No. 2 fruit, if it is so marked. But to sell No. 2 fruit as No. 1 fruit is where the trouble is.

If accounts are figured up at the end of the year it will probably be found that the orchard and garden are the most profitable patches on the farm.

Rows planted too closely will not yield as large, nor as good, a crop as where the rows are farther apart.

Apple thinning may be done with the saw in the spring or with the hand in the summer. It would seem that hand-thinning would give better results than pruning. After the apples are set, thinning is necessary, the orchardist will be able to thin by removing the smaller and imperfect apples, leaving enough of the most promising ones to make a "load" for the trees.—Western Farmer.

Fertilizer Requirements of the Potato

Extract from "The Potato Crop in Canada" by E. Leslie Snow, C.D.A., F.A.S.I., F.C.S.

"The elements of fertility, of which a soil becomes depleted in the ordinary course of cropping, are nitrogen, phosphoric acid, and potash, and every pound of produce sold off the farm removes a certain amount of the substances, so that if the fertility of the soil is to be maintained, these essential elements must be returned in some form. This can be accomplished by applications of artificial fertilizers, either as substitutes for or supplements to barnyard manure. It has been shown by repeated analyses that a crop of 300 bushels of potato tubers removes from the soil approximately 60 lbs. of nitrogen, 30 lbs. of phosphoric acid, and 195 lbs. of potash. A preceding crop of clover, ploughed under, would furnish the necessary nitrogen; clover being peculiarly endowed with the power of assimilating atmospheric nitrogen, enriches the soil in that expensive ingredient; 300 lbs. of acid phosphate would provide all the phosphoric acid and 210 lbs. of sulphate of potash all the potash required. If we allow for a small supply of these substances available from the soil's supply, smaller quantities might suffice; but then, remember, that for a crop larger than 300 bushels the quantities would be in proportion to the increase in yield over that amount."

Copies of this and other important bulletins, treating of this important subject, may be had by applying to The German Potash Syndicate, 1102-1108 Temple Bldg., Toronto, Ont.

How Did it

When the buds on your fruit trees are swelling, spray the trees from the top to bottom with

"Vanco" Lime Sulphur Solution

Clean trees mean sound fruit. Spring spraying means fall profits. San Jose Scale, Apple and Pear Scab, Aphid, Fire Blight, Mildew and other Fungal attack fruit trees before the leaves come out.

The time to attack them is before they can damage the tender buds. One spraying before the leaf buds burst, and another just before the blossoms come out—with perhaps a third when most of the blossoms have fallen—will mean hundreds of dollars profit when the fruit is ready for packing.

"VANCO" LIME SULPHUR SOLUTION is a true chemical solution of uniform strength and efficiency. It is prepared by scientific men in a scientific way—with the specific gravity on every barrel.

It does away with all guess-work—saves the trouble of home-boiling. It is ready for use after mixing with water—has no sediment—sprays easily—and does not clog the nozzle.

You get results when you spray with "VANCO" LIME SULPHUR SOLUTION—because it is strong, uniform, clear, efficient.

FERTILIZERS—We are the only house in Canada selling only the straight Fertilizing Chemicals—Nitrate of Soda, Muriate of Potash, Sulphate of Potash and Acid Phosphate. YOU CAN SAVE MONEY by buying your Fertilizers and Spray Chemicals together, and have all in one shipment.

WRITE FOR THE "VANCO" BOOK, and turn the information it will give you into dollars. We'll gladly send you a copy, free.

CHEMICAL LABORATORIES LIMITED, 130-140 Van Horne St., TORONTO.



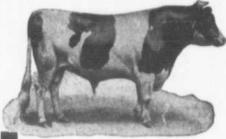
IHC Service Bureau
The Bureau is a clearing house for agricultural data. It aims to learn the best ways of doing things on the farm, and then distribute the information. Your individual experience may help others. Send your problems to the IHC Service Bureau.



30 REGISTERED 30 HOLSTEINS

To be Sold at Public Auction, in

Tweed, Hastings County March 13th



Included in this sale are cows with milk records of over 70 lbs. a day, bred from such noted strains as **Hengerveld Johanna and Posch**. Nearly all the herd cows are in calf to **Hilcrest Hengerveld**, a grandson of **Hengerveld DeKol** sire of 115 A.R.O. daughters. This bull along with two others will be sold.

Having been breeding pure bred Holsteins for the past 12 years, and always having in view large milk producing strains, I can now offer to the public a choice lot of animals at this my first auction sale.

Sale will be held at Turcott's Sale Stables Five minutes walk from railway station

Sale Starts at 1 o'clock sharp, so parties can catch evening train home. Sale, storm or fine as it will be held under cover.

TERMS: Cash or 6 months credit on approved notes at 6 per cent. per annum.

Catalog on application to

**G. W. COUNTRYMAN, - Cedar View Stock Farm
C. P. R. and B. of Q. Rys. TWEED, ONT., Hastings County**

Rush

Your Copy in at once for our Big Orchard and Garden Number, out next week, **March 7th**. We can handle it Saturday, or as late as before 10 a.m. Monday.

FARM AND DAIRY - - PETERBORO, ONT.



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. 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. 9 oz., in 60 days.

PAULINE PAUL,—70 lbs. milk, 1 day; 18,669 lbs. 9 oz., in 1 year; 1,183 lbs. 15½ oz., butter, in 1 year.

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

EDGLY 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 G.T.R.**

CATALOGUES ON APPLICATION.

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

Agricultural Legislation

Three bills of particular interest to farmers and fruit growers have been introduced into the Ontario Legislature in the past two weeks: an Act respecting the enrolment and inspection of stallions, an Act to prevent the spread of noxious weeds, and another to prevent the spread of insect and fungous diseases.

The Act respecting stallion legislation is practically the same as was introduced last session and withdrawn. Stallion owners must submit their animals to inspection and certificates will be given, certifying as to the breeding of that stallion. This certificate must form a prominent part of all bill posters and must be exhibited to all owners of mares who contemplate using the stallion.

The Act respecting noxious weeds makes provision for the appointment of inspectors by municipal councils upon petition of fifty or more ratepayers. This inspector will have authority to enforce the destruction of noxious weeds on occupied and uncultivated land, roads and railway thoroughfares. Penalties will also be imposed on any one selling seed that is polluted with the seed of Canada thistles, ox-eye daisy, wild oats, rye, burdock or wild mustard. There is also a penalty for sowing grain infected by smut.

Are You Going West This Spring?

If so, take advantage of the remarkably low One-Way second class Colonial Rates to Vancouver, Victoria, Nelson, Spokane, Seattle, Portland, San Francisco, Los Angeles, San Diego, etc., in effect March 1st to April 15th, or if Western Canada is your destination, the One-Way second class Settlers' Rates should appeal to you. Settlers' trains to Western Canada will leave Toronto 10.20 p.m. each Tuesday during March and April.

Be reminded that the Canadian Pacific Railway offers the finest possible equipment and fastest train service. The route is one of the most scenic in the world. It is the only tourist sleepers, also dining cars to Winnipeg and Vancouver, with the most modern compartment observation library cars through the mountains and across Canada on transcontinental trains. By traveling C.P.R. you avoid the necessity of changing depots. All equipment is owned and operated by the C.P.R., affording the highest form of efficiency. If such a trip is under consideration apply to any C.P.R. Agent for full particulars.

May be Your Turn Next

More than any other property owner, the farmer is menaced seven months or more in the year by the danger of lightning striking his house or barns. Fully forty out of every hundred fires on farms are due to the "bolt from the skies," and the yearly money loss in rural communities of Canada reaches an appalling total from this cause. Yet it is easy and costs little to protect a farm building—or any other—from lightning, as well as from wet and wind and fire. With Preston Safe-Lock Shingles put on under the new and exclusive Preston specification, the farmer can have roofs that fulfil every desirable requirement of good roofing, and which are insured against damage from lightning. The Metal Shingle &

experienced on dairy farm, who wants a steady, year round job, on up-to-date, fully equipped dairy farm in Brant County, Ont., at best wages, all privileges, with splendid red brick, well-appointed cottage, apply at once to H. R. Nixon, St. George, Ont.

Siding Company of Preston, Ont., will readily furnish facts to convince anyone that their shingles offer the utmost value for the outlay any roofing can give.

XVIII

A wise move has been made recently by the following firms who advertise in Farm and Dairy:

J. H. Connor & Son, Ottawa; Renfrew Sale Co., Renfrew; Clay Gate Co., and Loudon Machinery Co., Guelph, and the Standard Cream Separator Co., of Renfrew.

These firms, hitherto, have been advertising more or less.

They found advertising to be profitable to them in reducing their overhead expense. Results proved this so to be.

But they were not making the most of their appropriations in that much of their copy did not measure up to its possibilities. All of it had not been placed in mediums that could be used to best advantage.

Men in the Sales departments—busy men with plenty of other work to do—had charge of the advertising.

They knew not too much about the science and practice of advertising; about mediums; and about preparing the most effective copy—copy that would ATTRACT ATTENTION, INTEREST, CONVINCE and then STIR TO ACTION.

Often it may have been they were without inspiration in their advertising work. They prepared copy in a hurry. Wrote it to get it out of the way.

Such practices represent waste. Results only much short of the possible could be expected.

Now these firms have placed their advertising under the direction of expert publicity men,—“Recognized” agencies. And in this they have acted wisely.

The up-to-date and reliable advertising agencies have at their disposal experience, artists, type, ideas and service not to be had elsewhere without undue cost.

Not always is it the part of wisdom to hand over all to the agencies but where no other regular and practiced man is available to take charge of the advertising, and where the appropriation is large enough to make it worth while and the agency demonstrates peculiar fitness to handle the work,—then we counsel, “Use the Agency.”

Farm and Dairy has always held this view and given this counsel since we realize it to be to our patron's advantage.

Then, too, the Agency copy—most of it—tends a higher tone; makes a paper more attractive; and in the case of Farm and Dairy it all adds to those greater forces we have pointed out before that make Farm and Dairy

“A Paper Farmers Swear By.”

MILK SUPPLY DEPARTMENT

Payment by Quality*

Jno. McKee, Oxford Co., Ont.
It is not alone in connection with our cheese factories that the great injustice of paying for milk by weight only prevails, but also in connection with the milk trade of our towns and cities. The great city of Toronto is reaching out 100 miles westward for their milk supply, and they pay a set price for milk regardless of quality. In the report of the Ontario Milk Commission some rather startling facts and figures are given relating to the milk supply of the city of Toronto. It states that whereas three per cent of butter fat and 12 per cent of solids are considered as a reasonably moderate standard, some samples went as low as 1.91 per cent of butter fat and 9.07 per cent of solids. That it is not a matter of a few isolated cases is shown by the fact that of 2,541 samples tested, 1,014, or about 40 per cent, were below three per cent.

QUANTITY BEFORE QUALITY

The deductions from these figures of the city analyst are confirmed by examinations of the Dominion analyst, who tested samples from all parts of Canada and found the milk from Toronto district the poorest in quality of any district in Canada. Among the reasons given for this deplorable state of affairs is the one "that there are many cows in this district of types which are noted for producing large quantities rather than milk rich in food values."

Now my point is this, "that the farmer producing milk above the average in quality is not getting that to which the superior food value of his article entitles him, either at the cheese factory or for town or city trade." I am pleased to note that some of our farm and dairy papers are taking this matter up, and our dairy associations are beginning to pay considerable attention to it.

A CASE FOR LEGISLATION

The solution of this problem in Ontario, in my estimation, will never be reached until our Provincial Government takes the matter in hand and passes a general law making it compulsory that milk should be paid for in proportion to the food value it contains. It would be advisable, I think, to pass a strongly worded resolution here, to be sent to the Minister of Agriculture, pointing out the great injustice of the present system, and suggesting that the Department investigate the matter with a view to introducing legislation, making it

*Extract from the Presidential address before the Ayrshire Breeders' annual convention, Toronto, recently.

Standard Gasoline Engine
Every one sold on a strong guarantee, as for our catalogue of engines.



LONDON CONCRETE MACHINERY CO., Dept. B
LONDON, ONT.
Largest Makers of Concrete Machinery in Canada.

THRASHING MACHINE
London Make (Chalmers), 2450, with Johnson Self-Feeder and Band Outter, Wind Stacker, Stewart Cutting Box and Chaff Flower. A very little care will put it in first class shape for second season's work. Reason for selling: Have dissolved partnership. \$250 will take it a bargain for someone.
CHR. I. ZEHNER, R.R. No. 5 Tavistock, Ont.

compulsory to pay for milk in proportion to the food value it actually contains.

Our members scattered all over Canada should press this matter upon the attention of their parliamentary representatives and endeavor by such means to secure nothing more or less than simple justice.

Our Legal Adviser

PUBLIC RIGHT TO LANE.—If a lane is being used for a public highway, and statute labor being done on it, and said lane is leading to public dock, it being used for a number of years, could any person or persons put up a dock at end of said lane for public use in spite of the owner of said lane, his dock being not fit for use?—W.H.M. Lennox Co., Ont.

If the public have not been using the lane for more than twenty years they have acquired no right over it, and you must debate them from its use at any time. If, however, they have been using this lane for more than 20 years, and in this case could not be prevented from building a dock on property to which they are thus entitled.

BUILDING ON LEASED LAND.—If a man living on a rented farm put up a stove also, could he move it with his left said farm?—W.H.M. Lennox Co., Ont.

The general rule is that buildings erected on leasehold property become part of the land, and the property in them passes immediately to the landlord; thus even a door or window placed in a leased house or a rail fence erected upon leased property passes to the landlord and cannot be removed by the tenant at the expiration of his lease. This, however, is subject to any special agreement which may be made between the tenant and the landlord. If you, therefore, contemplate building a silo on your leased farm you are advised to make some agreement with your landlord allowing you to remove the silo when you are leaving the property.

ENTAILED LAND; OTHER QUERIES.—A had a piece of land that was entailed. Had he a right to sell it? Is the widow liable for the husband's debts? A sold B a piece of land. The bargain was that he was to keep up the fence. B sold to C and he in turn sold it to D. Can D make A put up half of the fence? There is no writing about it.—W.A. P.E.I.

The holder of property that is entailed has a right to dispose of it, unless there is some other special condition attached to his holding or the property. As there may be some such condition, we would suggest your taking A's deed to a solicitor and getting his opinion, but the mere fact that the property was entailed would not prevent him from selling it.

A widow is not personally liable for a husband's debts. Such debts are payable out of the husband's estate, and may reduce the amount to which the widow is entitled.

Owners of adjoining lands are each compelled to build and keep up a proportionate quantity of the fence between their properties. This is a statutory liability and D can make A put up his half.

CLEARING ROADS OF SNOW.—When the snow drifts and farmers will not turn out to break the snow it is lawful for them to turn round and throw down rail fences along the road, fences not being on land belonging to the road? What steps should be taken?—D.H. Oxford Co., Ont.

The bad condition of a highway either from accumulation of snow or otherwise does not justify a person entering upon adjoining property, and consequently there is no right to

pull down a fence adjoining the road for any purpose. A person doing this is, strictly speaking, a trespasser, and can be brought up and fined under the Petty Trespassers Act.

There is power for a council or township to appoint an Overseer or Path Master to perform the duty of keeping township roads open during the season of sleighing. If such are appointed they have power to call out persons liable to perform statute labor to assist in keeping open such roads, and the work so done is credited on account of the statute labor chargeable against the person so performing the work for the year.

O. A. C. No. 21
Choice Seed Barley
\$1.00 PER BUSHEL
Bags 25c each extra.
Money must accompany order.
J. J. PARSONS Jarvis, Ont.

5 SEED OATS AND BARLEY
Siberian oats (test 35 lbs. or over, 70 per bushel. No. 21 barley, 41.25 per bushel. Clean. Pure stock from selected seed. Also Empire State and Early Puritan Potatoes.
A. HUTCHINSON, MOUNT FOREST, ONT. Member C.S.G.A.

YOU GET ALL THE CREAM
from your milk only when your separator runs freely and smoothly. This depends as much upon the oil you use to lubricate the separator as upon the separator itself.

STANDARD HAND SEPARATOR OIL



is the one oil you can depend upon to keep your separator in the best running condition.

Standard Hand Separator Oil feeds freely into the closest bearings. It also has just the consistency or "body" needed to reduce friction between the delicately balanced parts to the lowest possible point.

Standard Hand Separator Oil never gums, never rusts, never corrodes. Your separator will pay better and last longer if you use it.

Ask your dealer for **Standard Hand Separator Oil**. One gallon cans.

The Imperial Oil Co. Limited

SALES HAVE INCREASED MORE THAN ANY OTHER
It is a well-known fact that, during the last three years, the sales of

EMPIRE Cream Separators

have increased more than the sales of any other cream separator. There must be some reason or reasons for this great showing. These are some of the reasons:

- Empire Separators skim to a trace. There isn't a machine made their equal for close skimming under difficult farm conditions.
- They are easy to clean. They don't spatter oil. And they have anti-splash steel supply tanks.
- So nearly frictionless they almost run themselves. Children delight in operating them, and can easily do so with perfect safety.
- They are durable. Years of service have proven their true worth. Their cost per year of service is less than any known separator. Years in advance of competing makes.
- Your choice of the two standard methods of cream separation. We make both cone and disc machines. Both are fully explained in our latest catalogue. Send for a copy. Get reliable, accurate information on the subject.

EMPIRE CREAM SEPARATOR CO. OF CANADA, LIMITED.
Winnipeg, Toronto, Montreal, Sussex.
Agents everywhere in Canada—Look for the Empire Sign.

FARM AND DAIRY

AND RURAL HOME

Published by The Rural Publishing Company, Limited.



1. **FARM AND DAIRY** is published every Thursday. It is the official organ of the British Columbia, Manitoba, Eastern and Western Ontario, and Bedford District, Quebec, Dairy and Poultry Producers and of the Canadian Home, Ayshire and Jersey Cattle Breeders' Associations.

2. **SUBSCRIPTION PRICE**, \$1.00 a year, strictly in advance. Great Britain, \$1.20 a year. For all countries, except Canada and Great Britain, add 50c for postage. A year's subscription free for a club of two new subscribers.

3. **REMITTANCES** should be made by Post Office or Money Order, or Registered Letter. Postage stamps accepted for amounts less than \$1.00. On all checks add 25 cents for exchange fee required at 4. **CHANGE OF ADDRESS**—When a change of address is desired, both the old and new addresses must be given.

5. **ADVERTISING RATES** quoted on application. Copy received up to the Friday preceding the following Monday.

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 \$1200. The actual circulation of each issue, including copies of the paper sent subscribers who are but slightly in arrears, and sample copies sent from 1820 to 1828 copies. No subscriptions are accepted at less than the full subscription rates.

Sworn detailed statements of the circulation of the paper, showing the names of buyers by county and province, 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 draw attention to columns only the most reliable advertisers. Should any subscriber have cause to be dissatisfied with our treatment as to charges from any of our advertisers, we will investigate the matter and if we find ourselves in error we will discontinue immediately the publication of their advertisements. Should the advertiser send us a warrant, we will expose them through the columns of the paper and give our readers the only protection we can give. It is our policy to advertise as well. In order to be published, you need only to include in all letters to advertisers the words "I am a subscriber to Farm and Dairy." Complaints must be made to the editor of Farm and Dairy within one week from the date of any unsatisfactory transaction, and proof thereof, and within one month from the date that 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.

A GOOD BEGINNING

Hon. Martin Burrell is getting away to a good start in his new position as Dominion Minister of Agriculture. For years there has been more or less overlapping and friction between the work conducted by the departments of agriculture in the various provinces and by the Dominion Department of Agriculture. This has been due in a large measure to the fact that the Dominion Government has been undertaking work that properly belonged to the provincial governments. Hon. Martin Burrell evidently realizes the situation in which he finds himself, and he has shown wisdom by determining to deal with it at the outset of his administration.

In order that the friction and overlapping already mentioned may be removed Hon. Mr. Burrell has succeeded in securing the services of Mr. O. C. James, Ontario's able Deputy Minister of Agriculture, who is to act as a special commissioner while inter-

viewing the various provincial governments to ascertain how greater cooperation may be effected between their work and the work undertaken by the Dominion Government. Following this, Mr. James is to examine carefully into the working of the now very numerous departments and branches of the Dominion Department of Agriculture in order that they may be re-organized as may be necessary to make them more effective.

In acting as he has, Hon. Mr. Burrell has placed a great responsibility on Mr. James' shoulders, but no better qualified man for the position could have been found. Mr. James' experience with the Ontario Department of Agriculture, of which, although he is still well under fifty years of age, he has been the Deputy Minister for over twenty years, has prepared him admirably for the task that awaits him. We desire to congratulate Hon. Mr. Burrell on the action he has taken as well as upon his selection of the man who is to do the work.

INCOMPETENCE

The latest appointments made by Hon. Jas. S. Duff, Ontario's Minister of Agriculture, to fill the vacancy created by the resignation of Deputy Minister C. C. James, have furnished the crowning evidence of his unfitness for the position he holds. When Sir Jas. Whitney appointed Hon. Mr. Duff as Minister of Agriculture Farm and Dairy felt that while Mr. Duff might be lacking in some respects he would at least prove aggressive in standing for and promoting the interests of the farmers of the province. Many others interested in the cause of agriculture held the same opinion. As late as even a little over a year ago, when such a prominent Conservative as Mr. J. W. Flavell of Toronto, vigorously arraigned Hon. Mr. Duff for weakness in the administration of his department, we felt that the minister of agriculture was being unjustly criticized in some respects at least, and so stated our views. Since then, however, so many evidences of the inability of the minister of agriculture to properly administer his department have accumulated, we have been forced with regret to change our opinion.

Conservatives and Liberals alike freely admitted that the late Hon. Joan Dryden made an admirable minister of agriculture. Those who were acquainted with the work of the department realized that a very large measure of the success of the department under Hon. Mr. Dryden's administration was due to the capable, able work of his deputy minister, Mr. C. C. James. When Hon. Mr. Monro, and later Hon. Mr. Duff, retained Mr. James as deputy minister, it was anticipated that a large measure of the effectiveness of the department would be continued under the new administration.

During the past two or three years, however, evidences have accumulated that Mr. James' position has not been an altogether comfortable one.

Pressed on all sides by capable assistants, who have urged the undertaking of advanced work in their respective departments, criticized from the outside by leading Conservatives like Mr. Flavell, as well as by the leaders of the opposition and by the Liberal press because the department has not been doing more for agriculture and on the other side repressed by a minister who apparently has utterly failed to comprehend the need for an advanced agricultural policy, it was not altogether surprising, to those acquainted with the situation, when it was found that Mr. James had finally decided to sever his connection with the department and to accept a position but little if any better than he has been repeatedly offered in past years. In this connection it may be explained that Mr. James is in such a position financially in the new position he has accepted does not offer the same inducements from a monetary standpoint that it otherwise might.

When, however, it was learned that Mr. James was leaving the Ontario department it was hoped that Hon. Mr. Duff would realize the imperative necessity that existed for the best man possible being obtained as deputy minister. Instead, what do we find? The minister has taken the assistant of the chief of one of his departments and made him a deputy minister for the outside work of the department, thus creating a division of work and appointing a new deputy minister when the creation of such an office was utterly uncalled for. He has taken one of the secretaries of the department, a young man utterly without the proper qualifications as far as an intimate, authoritative knowledge of agriculture is concerned, whose experience in the work of the department is very limited, and who until comparatively recently was a reporter on one of the Toronto daily papers, and made him also a deputy minister of agriculture and placed him in chief charge of the work of the department.

It will be the duty of the last mentioned official to consult with the heads of the agricultural college, the superintendents of the various branches of the department's work, the officers of the live stock, fruit growers, dairymen's and other agricultural organizations, and then to largely plan the work they shall do, as well as the policy of the department. To his decisions such well known, capable government officials as Dr. G. C. Creelman, the principal of the Guelph College; Prof. Zavis, the provincial forester; Mr. A. P. Westervelt, the director of live stock; Mr. G. A. Putnam, the superintendent of farmers' and women's institutes; Mr. J. Lockie Wilson, superintendent of agricultural societies, and Mr. P. W. Hodgetts, the director of horticulture, will have to defer. The position these men have thus been placed in is a most trying and unfortunate one and can result only in the work of the department being seriously impaired.

This is a matter in which our interests as farmers are deeply concerned. We should insist that these conditions shall be remedied. There is one thing each of us can do. We should assert ourselves—for as long as we do not respect our own opinions no one else will—and write to day to our local member and to Sir James, Whitney as well, and make it clear that we believe that the work of the Ontario Department of Agriculture must be placed on a better basis. It is time we farmers made our influence felt.

EXPERIENCE TEACHES

"There will be more silos erected this year in this district than in any previous season," writes a York County subscriber to Farm and Dairy. "The dry season of last year has convinced all of us that we cannot do without the silo."

Farm and Dairy has received similar letters from all parts of the country. We farmers are learning by experience that silage is a food that we cannot afford to be without. A review of crop conditions for years past shows that in those seasons when other crops failed, Indian corn has been almost invariably a good crop, and the man whose stock came through the winter best was the man who had a silo.

Not for many years, however, have we had the value of the silo so thoroughly demonstrated as in the one just past. Even those who have hitherto been immune to the strongest arguments in favor of the silo are now giving in and will house their corn crop in a silo (as it should be housed) next fall. Demonstration of the value of the silo is now mountain high. In a few years we expect to see the silo universally adopted.

Why should the farmers of Eastern Ontario and Quebec continue to buy their clover seed? Mr. John Fixter at the Macdonald College

has proven

Profits in Clover that clover seed can

be grown successfully and profitably in a section where previously it was believed that seed would not ripen from second crop clover. Last year from a field of 24 acres Mr. Fixter threshed 2,776 lbs. of seed from the second crop of clover, which at twenty cents a pound would be worth \$555.20, or over \$23 an acre; surely a good profit when we consider that the first crop of clover went over three tons of first class forage to the acre. Clover seed will be expensive this year, and seed of first quality almost impossible to get. Fortunate indeed are those farmers of the east who got away from the idea that they cannot grow their own clover seed and last year threshed their second crop instead of pasturing it. The success of the experiments in clover seed production at Macdonald College and of farmers scattered here and there through eastern Ontario and Quebec will lead many more of our farmers to grow their own clover seed in 1912.

Short Tests Misleading

(Holstein-Friesian Register)

The practice of "fattening" cows for an official test is certainly placing a fictitious value on the offspring of such animals to sell them at fabulous prices.

Now, as a breeder of Holstein cattle, I want to say that I, for one, am in favor of abandoning the seven-day tests and putting all cows on the semi-official yearly work. I have made many good seven and 30-day records in the past, but not by the fattening process, as the cows so tested showed that they gave in test only normal Holstein milk, which means, according to Gardner's official report, around 3.6 per cent fat. If the fattening process keeps up we will see a lot of short milkers in the breed, and that is not what we, the farmers, want.

I do not say that there are not any four per cent Holsteins, but I do say that under normal conditions the 4.3 and 5.5 per cent Holsteins are not found in any numbers that would warrant a breeder or farmer to buy on such a record. Note, for instance, that a cow recently tested and officially reported gave in seven days 630.4 lbs. of milk and the test showed 5.31 per cent fat. In the 30-day period this cow gave 2,627.8 lbs. of milk with a test of 4.54 per cent fat. Note the difference in the first 30 days—almost one per cent in fat. This cow was tested again at the end of or near the second 30-day period and the percentage of fat was reduced to 3.6 per cent. Now, it will be seen that this cow made 28.45 lbs. of fat in the first seven days with the abnormal percentage of fat. Had she been giving her normal milk, that is around 3.6 per cent, her fat record for the week would be 19.27 lbs.; or a difference of 9.18 lbs. of fat; and the 30-day record would be 108.90 lbs. of fat instead of 116.53 lbs. The significant part of this test is that the cow actually lost in flesh 80 lbs. during the first 30 days of the test.

Experiment stations all over the land are measuring cows by what they can do in a year and the farmer is also measuring his cows by that standard, so it will be well for breeders to take cognizance of this fact and do likewise. Give us more yearly, normal records and a good, safe business working basis. F. Schilling, Northfield, Minn., in Hoard's Dairyman.

Note.—The foregoing from the Holstein-Friesian Register, the official monthly of the American Holstein Breeders' Association, is a more sweeping condemnation of the short-time test than we would care to make. Farm and Dairy believes that the seven-day test has little of inestimable value in improving the producing qualities of dairy cattle. The greatest milking strains of cattle that we have to-day were discovered and developed by the seven-day test. We believe that the great majority of seven-day records made by both Canadian and United States Holstein cattle have been made under normal conditions and are reliable indicators of the producing power of the animals tested. This is particularly true when the test is repeated eight months after calling. As pointed out by Mr. Schilling, however, there is an opportunity for making abnormal short-time records, and breeders would do well to adopt more widely the semi-official yearly test and the seven-day test eight months after calving. Dairy farmers who are looking for pure bred dairy cattle are laying more and more emphasis on the yearly test, and will continue to insist on knowing the production before purchasing sires for their herds of females to replenish their stock.—Editor.

About Homogenized Milk

Editor, Farm and Dairy.—In Farm and Dairy last November I noticed an article and editorial on homogenized milk. I would understand from those articles that the process of "homogenizing" of milk is something new. Perhaps it will be interesting to you and your readers to know that down in Nova Scotia, a place side-tracked by most Upper Canada people, a factory has been equipped and homogenizing milk for about a year. While they have been doing considerable business the new plant has had no bad effect on the regular milk trade of the towns and cities where it is sold.

Homogenized milk is not as popular with consumers as might be expected. Although the product of this factory is for sale all over the Maritime Provinces, yet the one factory in Nova Scotia, situated at Antigonish, and operated by the Maritime Free Milk Company, had to turn some of their milk into cheese last summer, so as to take care of all the milk contracted for, the sale of homogenized milk being so dull. Homogenized milk is very good for culinary purposes, sick people and infants. It has a peculiar flavor not relished by those who like milk as a drink.—R. M. Jackson, Cape Breton, N.S.

Some Horse Troubles

A humane person dislikes to work a horse with a sore shoulder, neck or lack. However, it is no easy matter to work a horse hard every day without his shoulders getting some sore, unless he is seasoned and the shoulders hardened and toughened. Nearly all young horses when first put to hard work are troubled with sore shoulders, necks and backs.

In order to prevent sore shoulders it is well to first consider the importance of well fitting collars, for without them it is impossible to keep the shoulders from getting bruised and chafed, especially if the weather is hot. Nearly every horse has some peculiarity in the shape of either neck or shoulder; therefore, a collar should either be made for him, or one fitted to him. We wear shoes and, if walking much, we are obliged to have a good fit or the result is sore feet. This same rule applies to horse collars.

A COLLAR FOR EACH

When selecting a set of harness to be used for different horses don't forget to buy a good fitting collar for each of your work horses. It will pay to do it. The collar should not only fit well, but the draft should be evenly distributed over the whole surface, and the face of collar kept clean.

The mane often acts as an irritant and in many cases that part which the collar rests on should be clipped off, for it often prevents the sore on top of neck from healing. Also it makes the neck too warm.

THE TIGHTENING PROCESS

The tender necks of all colts and aged horses can be so toughened as to prevent the collar of sore necks or shoulders. The collars should be taken off at noon and during hot weather to give the shoulders a chance to dry and the collar to air and dry. At the season of the year when farmers are planning for spring work it is well to keep in mind that the shoulders of all colts and idle horses should be toughened before they are put to work.

Frequent applications of salt water, one tablespoonful to each quart, or apply white oak bark tea, or dissolve one ounce of acetate of lead, six drams of sulphate of zinc and two drams tannic acid in one gallon of water, applied to shoulders four or five times a day will toughen tender shoulders, necks and lacks.—Vet.

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Ten years ago there were a dozen different makes of creamery or factory separators in use. Today over 98 per cent. of the world's creameries use DE LAVAL separators exclusively.

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a doctor. If you had the tooth-ache you would call on a dentist. Why? Because the men are all specialists in their lines, and you rely upon their judgment and skill.

When it comes to buying a separator why not profit by the experience of the creameryman? His experience qualifies him to advise you correctly. He knows which separator will give you the best service and be the most economical for you to buy. That's why 98% of the world's creameries use the DE LAVAL exclusively.

There can be no better recommendation for the DE LAVAL than the fact that the men who make the separation of milk a business use the DE LAVAL to the practical exclusion of all other makes of separators.



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SEED OATS

Scottish Chief Oats, large, plump grain, testing 29 lbs. per bush, or better; 90 cts. per bush, sacks included. Double Oats ripens very early, good sample, a limited quantity at 90c per bush, including sacks.

Alex. A. Watt, Brucefield, Ont.

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 discussion. Address letters to Creamery Department.

A Dairy Paper for Patrons

Jas. Keachie, Dezeter, Ia.
I think a great factor in keeping up interest and educating our creamery patrons is to have a good dairy paper among them, one that instructs them in the great dairy industry. They will read it and take pride in it. They will learn that the up-to-date dairymen is not the dairymen of a few years ago. They will see that the dairy business is progressing, and if they expect to get the best results they must use up-to-date methods just as they do in other lines of farming.

We have had 13 issues built in our territory the past two summers, and they have all without one exception been built by patrons who read a dairy paper. This ought to be proof enough for anyone of the value of a dairy paper among his patrons; they are always the patrons who are progressive and striving all the time to im-

prove their herds and methods of caring for and delivering their cream. They get a great deal of information from the dairy paper that they could not get in any other way.

Cream Samples for Grading

C. Marker, Dairy Commissioner for Alta.

Where a system of cream grading and payment by quality is followed as at our Alberta creameries, it is necessary that the cream samples taken by the hauler shall reach the factory in as good condition as the bulk of the cream. In the application of a natural principle we have found a fairly efficient method of doing this.

The evaporation of water from a body lowers its temperature by the withdrawal of some of its heat. This is a phenomenon familiar to all who have been out in the rain, even on a warm day, without an umbrella or rain coat. So long as the clothes, the covering of the body, are damp a certain amount of evaporation goes on, and this is responsible for the chill experienced by the body inside, which has to yield up some of its heat in the process.

As it works out in applying this principle to the cases used for carrying cream samples, we merely have to provide them with (1) "clothing," i.e., a covering material which will readily absorb water, and (2) "rain," i.e., keeping the covering wet so long as we want the contents of the cases kept cool. The warmer and drier the surrounding atmosphere is the more rapid will be the evaporation, and the lower the temperature inside the cases.

Preliminary tests of this principle applied to the sample cases were made by placing two cases containing samples of cream in a steam boiler, where the temperature was close to 100 degrees Fahr. The samples in both cases were identical and had an initial temperature of 54 degrees. One of the cases (No. 1) had got outside covering of any kind, and the other (No. 2) was covered with several thicknesses of burlap thoroughly soaked in cold water once every hour for the first three hours.

In the first test the temperature of the samples in case No. 1 had risen 42 degrees in six hours. While the temperature of the samples in case No. 2 had risen only 10 degrees.

In the second test, case No. 1 covered with four-ply of burlap, soaked once every hour for the first three hours in water at 40 degrees, showed a rise of only four degrees in six hours. Another case covered with two-ply of burlap only, but otherwise treated the same as No. 1, showed an increase of seven degrees in the temperature of the samples. Several other tests of a similar nature were conducted with practically identical results.

SOME CONCLUSIONS REACHED

Our experience gained in making these tests under somewhat severe conditions (atmospheric temperatures of up to 100 degrees Fahr.) and our common knowledge of the theory of evaporation appear to justify the conclusions:

1. That it is possible for the cream collectors to carry in the wooden boxes ordinarily used for carrying samples and to deliver at the creamery their test samples in practically the same condition as the bulk of the cream from which they were originally taken, provided that the boxes be kept enclosed in three or four thicknesses of wet burlap or sacking exposed to the atmosphere on route.
2. That the samples of the patrons' cream collected first may be kept cool and delivered to the creamery in practically as good condition for grading purposes as the samples of the

cream supplied by patrons living nearer the creamery.

CHEAP AND EFFICIENT
We have here described a method of carrying and caring for the samples from the patrons to the creamery, and we believe it will answer the purpose very well. It is fairly efficient, being capable of preventing any material rise in the initial temperature of the samples for a number of hours under all ordinary conditions. It is inexpensive in that the present sample boxes may be used, requiring only the addition of the necessary covering for which even old bags will answer. It is practically automatic in its effect, requiring but the coverings of the cases to be kept wet on route.

The patrons will be pleased to furnish an occasional dipper of water to the cream hauler so that he may keep the samples cool.

Sticktoitiveness

In taking hold of a creamery or a cheese factory there are sure to be encountered some features which are objectionable to the maker.

The churn may not be his liking, the vats may not suit, the patrons may seem disgruntled about one thing or another, and many other matters may be displeasing. Under such conditions the sealer, who at such times remains at the bottom, will keep up an incessant wail about conditions and spend valuable time in looking for an "easier job"—time that should be spent overcoming the difficulties under which he is laboring.

The man that is made of the right stuff will not only not complain when placed under trying conditions, but will actually welcome them. It is the adverse conditions that afford the best opportunity for making a "showing."

ADVERTISING MAKES THE MAN

One that wishes to advance must learn to overcome what he cannot continually complain about them. The world is full of men whose chief aim and purpose seems to be to dodge responsibility. The man who succeeds in a creamery or a cheese factory must try to make satisfied out of dissatisfied patrons, and clean up and straighten out the factory and surroundings, which are often in the shameful state of neglect because of some slovenly and indifferent maker.

Don't deceive yourself into believing that your employer will not take notice of your work. On the contrary, you may rest assured that ample credit will be given you for any extra efforts you may make in bettering the condition of your creamery or factory.—Butter, Cheese, and Egg Journal.

Cream Separators and Politics.—In the county of Henfrew, where the spectacular politics contest has just been waged, is the thriving town of Henfrew, known as the Creamery town, and it is here that the famous "Standard" Cream Separator is built, known for its exclusive features of self-oiling, close skimming and convenience of operation. Farmers and dairymen will do well to look up the advertisement of these machines in this issue and get particulars.

Complete Butter Plant FOR SALE

1 (200 gal drum) Success Churn and Worker, C. Richardson's make, St. Mary's. Used only 18 months. Is in 1st class shape.
1 Refrigerator, large size, 2 ft. by 1 ft. by 4 ft. inside.
1 Sweet P.P. Horizontal Stationary Boiler.
1 New H.P. Lard Engine, to set on base beside Boiler.
Water Tank, Bells, Shafts and Pulleys will sell in Churn along with the Season for selling. Gone out of butter selling. And WILL SELL CHEAP. For full particulars write
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AMERICAN SEPARATOR

A brand new, well made, easy running, easily cleaned, perfect skimming separator for \$15.95. Skims one quart of milk a minute, warm or cold. Makes thick or thin cream. Thousands in use giving splendid satisfaction. Different from this picture, which illustrates our large capacity machines. The bowl is a sanitary marvel and embodies all our latest improvements. Our richly illustrated catalog tells all about it. Our wonderfully low prices on all sizes and generous terms of trial will interest you. Our twenty-day guarantee protects you on every American Separator. Shipments made promptly from **WINNEPEG, MAN., ST. JOHN, N. B. and TORONTO, ONT.** Whether your dairy is large or small get our great offer and handsome free catalog. ADDRESS, **AMERICAN SEPARATOR CO.,**



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Cheese Department

Makers are invited to send contributions to this department, to ask questions and matters relating to cheese making and suggest subjects for discussion. Address letters to The Cheese Maker's Department.

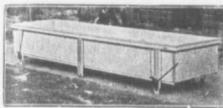
Gains by Cooling Milk

Frank Hens, Chief Dairy Instructor, W. Ont.

Owing partly to the extreme warm weather of July and August last year, the "average" at some factories was higher than usual. A portion of the milk arrived at the factories over-ripe or gassy. It has been previously well established that losses in yield occur in handling such milk. The suggestion was made that the instructors do some further work on this point under factory conditions.

Four experiments were made, the average results of three of which are given. The milk was taken in the first day and made into cheese the usual way. The patrons whose milk went into this particular vat were visited that afternoon by the instructor and requested to make a special effort to cool the milk and have

"PERFECT" Steel Cheese Vat



(Patented August 14th, 1906)

DURABLE—All Steel—SANITARY—Not a crack or spot for milk to lodge in and decompose. **ENJOY** the advantage of the doctor-of-lawyer built so that the last drop runs out. **Light**—Steel Curd Sinks, Steel Whey Tanks, etc.

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The Independent Telephone brings the veterinary and your valuable milk in a special way. In case of family illness, the Telephone will out-thrust the messenger in attendance. The doctor-of-lawyer may tell you what to do, give temporary relief until he reaches the hospital. The Independent Telephone will bring the doctor-of-lawyer to your door, with the certainty of getting instant assistance in case of sudden family emergency.

You lift the horn of your shoulder when you lift the receiver to the back of your ears.
STROMBERG-CARLSON
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Manufactured exclusively in every village. Patrons receive a telephone more than 100 times better than any other. The doctor-of-lawyer will bring the doctor-of-lawyer to your door, with the certainty of getting instant assistance in case of sudden family emergency.

With an Independent Telephone in the farm, you can always get the assistance in case of sudden family emergency. The doctor-of-lawyer will bring the doctor-of-lawyer to your door, with the certainty of getting instant assistance in case of sudden family emergency.

You, and also some how—no matter how many times you call, you will get the same result. Write for it "How the Independent Telephone Will Bring the Doctor-of-Lawyer to Your Door" Edition No. 10. It will tell you over with the neighbors.

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No. 393 Type

it sweet and in good condition for the following day. The cooled milk from the same patrons was made into cheese the second day and the summary is as follows:

	GAINS FROM COOLED MILK		
	Lbs.	Temp.	acid-
Kind	14294	89	115
Not cooled	14294	89	115
Cooled	13267	68	116
Difference	1027	12	619

In every case the cooled milk made a greater quantity and a better quality of cheese than the uncooled milk.



Here is a Point Worth Noting

To the side of the elevated whey tank here illustrated is a cement platform on which the milk wagon stand when the haulers are filling the cans with whey. This prevents the ill-smelling mudhole found so commonly beside the whey tank at cheese factories. In the illustration may be seen Mr. W. J. Hicks, maker at the Quinte Cheese and Butter Factory, Hastings Co., Ont.

—Photo by an editor of Farm and Dairy delivered by the same patrons the previous day.

The cooled milk arrived at the factory with less acidity, was not gassy and there was a less loss of fat in the whey.

The greater yield of cheese from the cooled milk increased the value about three cents per 100 lbs. of milk.

Influence of Fat on Quality

Under factory and farm conditions, existing at present, there is absolutely no indication that the fat content of normal milk will be the controlling factor in the quality of the cheese. This is due to the dirty condition of the milk delivered. In the scoring exhibition at the Wisconsin Agricultural College, a cheese made from a 3.4 per cent. milk scored 89.9, while one made from a 4.0 per cent. milk scored 86.6 per cent. Two others made from 3.5 and 4.3 per cent. milk scored 94.8 and 94.2 respectively. This is not surprising.

There appears to be an impression that because a normal flow is low in fat the cheese made from it will be low in fat, or approach a skim cheese. This is not true. It should be remembered that the casing content of normal milk is always lower than the fat content and consequently a cheese made from normal three per cent. herd milk will always have in it a higher per cent. of fat than casing. While a cheese made from a 4.5 per cent. milk may have a relatively higher fat content than that made from a three per cent. milk, nevertheless un-

der factory conditions, it may not score higher.

This, as stated, is due to the fact that the sanitary condition of the milk is a very important factor in con-

	Pr. et.		100	
	Lbs.	Temp.	Lbs.	Lbs.
fat	3.38	23	1198	9.37
fat	3.53	183	1105	11.66
fat	3.53	183	1105	11.66
fat	3.53	183	1105	11.66

trolling the quality of cheese and that fat alone has only slight influence, even in normal milks of like quality when judged for cheddar cheese by the buyers for the market.

Testimony re Cool Curing

M. S. Schell, Oxford Co., Ont.

We installed a cooling system in the East and West Oxford Union Cheese and Butter Factory some three or four years ago. It has proven a success in every way.

There is less shrinkage in curing the cheese the saving ranging from one-half to one and one-half pounds per cheese, according to the season of the year and the length of time the cheese is held. The quality is also considerably better, especially during the warm summer months. We use a liberal supply of ice for cooling.

Dairying is like every other business. Success depends largely on attention to details.

You can tell pretty well when your cheese maker is taking bad milk at his cheese factory by the number of pounds of milk that is required to make a pound of cheese. When the milk is good it takes less to make a pound of cheese than when it is bad. —Chief Dairy Instructor G. G. Gublow, Kingston, Ont.

VELVET CREAM

The wealthiest, most particular and discriminating people on earth use the distinguished service of the great Canadian Pacific R. Co., with its ocean-to-ocean trains, and that is why Tubular-made cream alone is served and satisfies the management of that railroad.

It costs them more money, and Mr. John McFadyen's dairy at Parkburg, Sask., with a Tubular at the head of it, gets the benefit in big profits.

The great New York Central R. R. gets Tubular cream for its dining cars from Mr. Geo. H. Sweet, East Aurora, N. Y., and both the railroad company and Mr. Sweet's profit from the velvety Tubular cream.

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To keep one's foot set firmly in the way that leads upwards, however dark and thorny it may be at the moment, is to conquer.

—Lutian Whiting.

The Second Chance

(Copyrighted)

NELLIE L. McCLUNG

Author of "Sowing Seeds in Danny"

(Continued from last week)

Pearl, the oldest daughter of John Watson, a C. P. R. section man living in Milford, Mass., received a large sum of money from the relatives of a young Englishman she had nursed when ill. She decides to educate herself and the rest of the family. The Watsons are joined by their Aunt Kate, who proves not an unwise blessing. Pearl proves an efficient and clever scholar and has dreams of being a school teacher. She sees that her small brothers are learning bad habits in the town and gives up her ambition to be a school teacher and suggests moving the family onto a farm, to which John Watson agrees. We are introduced to the children at a country school. Tom Steadman, a bully, in a game of shindy, intentionally strikes with his club Libby Anne Owers, for which he is thrashed by Bud Perkins. Libby Anne does not dare to say the blow was intentional, as her father owes Mr. Steadman money. Bud Perkins is angry, but forgives Libby Anne, as he understands the circumstances. In the meantime the Watsons are given the Watson farm to attend the country school. Pearl calls on Mr. Burrell, the pastor, and asks him to conduct services in their school house. All attend the Pioneers' picnic. Sandy Braden, hotel keeper, promises Pearl to give Bill Gavers liquor. His sister tender does. Bill is found dead. Mr. Perkins plucks his grain with frozen wheat and Bud is accused. He leaves home.

"I'm a mighty unhappy man," he said sadly. "I'm different that way, that's a true thing."

Pearl looked at him closely, as if she would see the inner working of his mind.

"Mr. Braden, I know just what you're like," she said. "Did you ever see a man trying to stand still on a bicycle? That's no harder than what you're tryin' to do. You've stopped doin' wrong, but you haven't gone on, and you're in great shape to take a bad fall. If you'd just get busy helpin' people you'd soon get over being sad and down-hearted. You're feelin' bad over Bill Gavers' death. Why don't you make Bill's death count for something good? You're a smart man, and everybody likes you. If you was to teach a Bible class every one would come to hear you."

"I'll bet they would," he said, shrugging his shoulders and laughing almost bitterly.

"Well, then," said Pearl, "don't let the chances all go by you, and you know, I often go to the trees and feel sorry for them?"

"Why?" he asked curiously.

"Because they can't do a thing to help each other; and I often wonder if they're the people who can't lift a finger to help any one when they're livin', and so they were turned into trees when they died, and now they see grubs and worms crawling over their own folks, maybe, and they can't lift a leaf to help them. Mr. Donald read us a story in school about a man who was awful mean while he lived and wouldn't help anybody, and when he died he had to wander up and down the world and see people starvin' and all sorts of sad sights, but he couldn't do a single thing for them, though he wanted to bad enough, because he had forged a chain that bound him hand and foot while he was livin', all unbeknownst to himself. Did you ever read that little book, Mr. Braden?"

"I did," he said. "I read that story, but I had almost forgotten it. I haven't thought of it for years."

"It's a good story," said Pearl, meaningly.

"I guess it is," he answered, smiling.

When they reached the Watson home, Mrs. Watson and Aunt Kate came out and thanked Mr. Braden profusely for his kindness in "givin' the childer a lift." Danny, who had been bored by the serious nature of the conversation, had gone to sleep, and was carried snoring into the house.

Mr. Braden admired the display of poppies and asters, which still made a brave show of colour against the almost leafless trees of the bluff, and when Pearl ran over to pick him a bouquet of asters, was it by accident—or does anything ever happen by accident—that she put in some leaves of sweet-mary?

CHAPTER XXIV.

TRUE GREATNESS

A shipwrecked sailor, waiting for a No sail from: day to day, but every day.

The sunrise broken into scarlet shafts—A blaze upon the waters to the east.

A blaze upon the waters to the west,—but no sail.

—From Enoch Arden.

Almost every person in the neighbourhood was interested in Arthur Weyness's new home which he had built on the bank of Plover Creek, a small stream that dived aimlessly across the prairie from Lang's Lake to the Souris River. Plover Creek followed the line of least resistance all the way along, not seeming to care how often it changed its direction, but zigzagging and even turning around and doubling on itself sometimes. Its little dimpled banks, treeless save for clumps of silver willow, gave a pleasing variety to the prairie scenery.

It was on one of the highest of these banks that Arthur had built his house, and it was a pleasant outlook for any one who loves the long view that the prairie gives, where only the horizon obstructs the vision.

Behind the house, which faced the setting sun, was an old "buffalo run," a narrow path, grass-grown

now, but beaten deep into the earth by the hoofs of innumerable buffalo that long ago came down to the little stream to drink. It had been a favourite killing-place, too, for the Indians, as the numerous buffalo bones, whitened by the sun and frost of many seasons, plainly showed.

Arthur had made a fantastic "rockery" of skulls and shanks and ribs, and filled it in with earth, enough to furnish growth for trailing nasturtiums, whose bright red and yellow blossoms were strangely at variance with their sombre setting.

Arthur had won for himself many friends among the people of the neighbourhood by his courteous manner, and every one in the neighbourhood, particularly the women, were interested in the coming of Thursa. Mrs. Motherwell, Mrs. Slater, and Mrs. Watson had each promised to set a hen on thirteen eggs—which number is supposed to lose its unluckiness when applied to eggs—to give Thursa a start in poultry. Arthur thanked them warmly, but just for a minute he found himself wondering how Thursa would look feeding chickens. He knew that she was adorable at tennis or golf, and although attending to fowl is not really more strenuous than these, still it is different. But her husband, at twenty-five, and Arthur was supremely happy dreaming of the coming of Thursa.

His father and mother had sent him a photograph for his Christmas present the previous year, and

A Backyard Well Cared For

Notice the vines and flowers that beautify the back verandah. The mump, tub and sundial are the work of Mrs. Howson of Peterboro Co., whose place this is, believes in giving the house and surroundings as much care as he gives his crops.

—Photo by an editor of Farm and Dairy

it had been an unending source of comfort and pleasure to him as well as to his neighbours and friends. There was one record that Arthur put on only when he was alone, for it was Thursa's own voice singing to him from across the sea—the song of all others he loved to hear, for every note, every word of it, throbbled with tenderness and love:

"The hours I spent with thee, dear heart,

Are as a string of pearls to me; I count them over, every one apart, My rosary, my rosary."

Often when his day's work was over and he sat in his little house, as the velvet-footed dusk came creeping down the Plover Creek, Thursa's bird-like voice, so clear and precious and of dearest memories, would fill the little room with heavenly sweetness and carry him back again to the dear days at home, when they wandered hand in hand beside the English hedges "white with laughing may."

There was only one person in the community with whom Arthur felt really at home and to whom he could speak freely, and that was Martha Perkins, for although Martha did not talk much she was a pleasant listener, and Arthur always came away rested and cheered. "She is a jolly

good sort, Martha is," he often told himself, "a real comfortable kind of person." In return for Martha's kindness to him Arthur brought her books and magazines when he found that Martha was not reading. Her time reading instead of working at the never-ending needlework.

All through the harvest Arthur had had working for him a solid-headed son of toil whose name was Tom to "get on his nerves," and it was partly to get away from this depressing influence that Arthur went much of his time to see Martha and to spend time reading instead of working at the never-ending needlework.

One Friday night Arthur did not come for his bread as was his custom, and when Martha took it over herself the next morning she found him suffering from a bad attack of grippe. Then followed for Martha five sweet days of never-to-be-forgotten happiness, when Arthur, fevered and restless, would exclaim with joy when she came in to see him, "I'm a born nurse, quick, steady, and cheerful, and no matter how Arthur's head was aching when she came in, he always felt better just to have her near, and his head and heart, work-hardened though it was, on his forehead, always had the effect of soothing him.

She went every night and morning to Arthur's house, bringing with her enough tempting eatables to feed the healthy men; for Martha was strongly imbued with the idea that to eat well was a sure road to recovery. In Arthur's case her faith was justified for on the morning of the sixth day she found him so much better that she could put the "happy days" over her. Arthur no longer needed her desire was greater.

"My word, Martha," he said, "you have been a welcome sight to me this week. You are like the good fairy of the tales. I have been noticing how you will improve you when she comes. I am sure you and Thursa will be the bestest pals ever. I was just thinking of you and Thursa, and you do know how to make people feel easy in their minds. It is wonderful. I never saw any one like you in this way."

Any person looking at Martha's face would not have called her a plain girl, so radiant did her face become at these words of praise.

"It's a mighty gift," he said with her slow smile. "I cannot sing or talk or look nice. I can only bake and scrub and sew and keep things tidy."

"Well, that is a gift, I tell you, I real good one. People who talk sometimes talk too much, and you can't live on singing, you know, though it is one of the greatest gifts." He was talking of Thursa's chirrupy little treble, which to him was the sweetest music on earth. "Thursa will brighten us all when she comes. Just to hear her laugh, and her singing, and her chirruping, any day. She has the most adorable little ways. You do not mind hearing me rave about her, do you, Martha? You know, you are the only person I can talk to about her and when you see her you won't blame me at all."

Martha was putting on her wrap to go home, and fortunately he could see her face as she went.

"That's all right, Arthur," she said bravely. "I like to hear you talk—about her," which came a little near to being a deliberate falsehood. Martha had ever told in all her honest life.

(Continued next week)

The Upward Look

According to Our Will

For if there be first a willing mind, it is accepted according to that a man hath, and not according to that he hath not.—2 Corinthians 8.12.

Our text this week shows that the poorest amongst us are for the most part as much to God as the richest. None of us need be poor in our givings to God. All that God requires of us is that we shall have the willing mind which would lead us to give more, gladly, if we had it to give. Our givings are not valued by their size or by their value, but by the joy we feel in giving them to the Master's service.

Why should this not be so? All the wealth of the world is the Lord's. He created it. He owns it. He can take it all back the moment He so desires. We hold it but for a brief interval and at His pleasure. We would have to relinquish it the second He might command. The wealth of this world, therefore, is as nothing in the sight of our Heavenly Father.

But we each of us have something upon which God does set a high value—our hearts. God has given us the power to choose between serving Him and serving Satan. In this He has made us free agents. He cannot interfere with our choice without defeating His own great purposes. He hangs and thirsts after our love, just as an earthly parent hungers for the love of his children, but his desire is towards us, is infinitely greater. And He knows that when we truly love Him we will gladly surrender not only ourselves to Him but our means as well, for that our chief desire will be to do His will. When we thus love Him we will cease to estimate grudgingly how much we can afford to give unto Him or how much we ought to give. Instead, we will give joyfully all that we come, whether it be much or little, and God will value our gifts by the spirit that prompts the giving. Thus the text which the widow's mite, if we give it rejoicing, will please God more than the \$100,000 some multimillionaire

may give, to some great church or missionary enterprise, with the desire that he may receive the praise of men. God sets no value on such gifts and the only reward those who make them receive is the praise of men, which they court. This was made plain by Christ, when He said, "Take heed that ye do not your aims before men, to be seen of them; otherwise ye have no reward of your Father which is in Heaven." (St. Matt. 6.1-11).

Therefore, if we desire to give much to God let us see that our hearts are warm with love to Him; that our givings are prompted by love to please Him. Then our givings be judged, not according to the smallness of our means but by our willing minds and loving hearts. These conditions are such that the poorest amongst us can comply with them and thus we may all be millionaires in the sight of God.—I.H.N.

Correct way to Make Porridge
To make porridge for breakfast seems to be a very easy thing to do, and yet how different it often tastes. I don't great many think to cook oatmeal porridge in a double boiler. Of course that way of cooking requires a coal fire. I have tried it that way but always imagined the long looking had a tendency to

pour it. I prefer the following method, either with oat or wheat meal, and I never find any trouble in getting rid of it. For each two persons to be served I use one cupful of meal. Place in a saucepan with sufficient cold water to cover. Let stand overnight and cook while breakfast is being got ready.—Aunt Jane.

"Why Plant a Tree?"

Why plant a tree? Because the birds, That "strains the listening air," May nest among its rippling leaves, And sing your praises there.

Why plant a tree? Because the bees, As season winds invade, May shelter underneath its boughs And their mute thanks bestow.

Why plant a tree? Because you may, As aging years invade, Eat of its fruit, admit its form, Or rest beneath its shade.

Why plant a tree? Because your son, And his son's son again, For this alone are your prayers May rise and bless your name.

Why plant a tree? 'Cause God Himself A soldier of the old, And if you follow in His way You'll find, mayhap, His fold.

So then if God, and child and you, And beast and bird agree, Why man't get up a lust that spade And go and plant a tree.

Treatment of Floors

C. M. Zeile, Peterboro Co., Ont.
Bare floors are more healthful and better in every way than carpeted ones. A carpet is difficult to keep over a broom or sweep, and it is swept, for the dust catches in the edges and sinks in, and the constant sweeping makes the dusting twice as back. First the carpet is swept, and what does not get into the pan sails gaily away to alight on all the corners and moldings, and then that escapes the dusting cloth sinks back into the carpet. Straw matting is easier to keep tidy on the surface, but when it is taken up even the easiest-going housekeeper has a shoulder of horror to see how much dust and dirt in the open, and the dirt has sifted through. With bare floors the whole problem is simpler. Rugs can be rolled up and taken outdoors to be shaken, leaving all the dust and dirt in the open, and the dust can be carefully wiped from the floor.

In the market there are a great many different preparations for floors—stains, paints, varnishes, wax, etc.—but whichever you decide to use, you must be careful to get the best grade. A few pennies saved in the beginning often means double expense, as the work soon must be done again.

REFINISHING WAXED FLOORS
If the floors have been waxed they will need to be refinished, and then will look as good as new. Have the floor thoroughly cleaned with a cloth slightly dampened with kerosene; when dry, apply a thin coat of wax with a woolen cloth or cotton waste. Let it dry ten minutes, then polish with a floor brush, first across the grain and then with it. After an hour repeat the process, and for the last polish put a piece of carpet under the brush. This second coat adds greatly to the beauty of the floor. Using a weighted floor brush makes the work very easy, and when going down on the knees to rub, and is well worth its price, but a substitute that does very well is a stiff scrubbing brush to be used first, and then a brick covered with wax. Be careful not to use too much wax.

If the floor is new and has no finish of any kind you will probably

have to use a wood filler. Paste fillers are considered best to use, as there is strong cohesion between the paste and the wax which gives a richer color tone to the floor and does not make it so slippery as varnish does. The wearing quality is also greater. If a liquid filler is preferred use one coat of the very best varnish. Do not use shellac as it is very apt to crack. After the filler is dry, apply the wax, and polish. If the floor has been painted and is worn in patches, it is better to have all the old paint removed. It can be scraped off after softening with turpentine, or one of the many paint removers to be found in the stores may be used. One should be careful about them, as they are apt to contain strong acids. Have the cracks filled and then proceed as with a new floor.

A GOOD CRACK FILLER MADE AT HOME
Cracks should always be carefully filled, as they collect dust and are a harbor of refuge for germs.

To make one's own crack filler, the following is an easy and inexpensive way: Take three quarts of hot water, put enough trow newspaper into it to absorb it all, and let it soak until it is soft and pulpy; then add one half pound of oil and one half pound of flour that have been mixed together, and stir thoroughly. Cook it until it is as thick as putty, and then press it in the cracks. Half of this quantity is enough for an average-sized room. The cost is about twenty cents.

If a waxed floor is carefully done in the first place it will require a light coat of wax on the parts that are most used about once in three or four weeks, and once in six months for the remaining portions. Make a Canton flannel bag to draw over a broom to sweep with, and when the floor looks dull have it rubbed with a cloth dampened in kerosene or one of the cleaning preparations that come for the purpose, and then polish with the brush.

The chief advantages of wax are that it brings out and enhances the natural beauty of the wood. It also improves with age, and each application has a hard wearing surface, so that heel marks and scratches do not easily mar it, and it is not difficult to keep in good condition.

Do not discipline your family at table. Neither correct children in the presence of strangers, nor servants when children are present.

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W. W. COBY,
Deputy of the Minister of the Interior.
No. 18—Unauthorized publication of this advertisement will not be paid for.



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OUR HOME CLUB

The Boy on the Farm

There is the making of a good man in the boy on the farm, but he can be irretrievably spoiled in the making if too much is put upon him; if his shoulders are loaded with blame for everything that goes wrong indoors and out; if privileged to give him orders, and if he is regarded as a mere machine without muscles to tire, sensibilities to wound, intellect to stimulate or a soul to inspire with longings for better things.

Those into whose hands are committed these youths ordained to eat their bread in the sweat of their face, have a responsibility above that of merely providing food, shelter and clothing.

An employer may be harboring an angel unaware, and whether this be true or not, there is laid upon him the duty of dealing justly and conscientiously with the lad, and in after years the boy of older growth will rise up and call him blessed.—Sister Lillian.

Girls and Their Accomplishment

We hear and read a great deal nowadays about girls who are quite accomplished and girls who have no accomplishments. I often wonder "Is it necessary to have this training to be the real lady?" "Tis true many women go through our colleges and can be counted nothing short of grand women, because they are as we read in the book of Proverbs. They get the knowledge and wisdom and with it get understanding. On the other hand, there are those college graduates who seem to lack so many of the good qualities of the one who never seems to be so fortunate. I have taken note of three different types of women which I will show by example.

Lady No. 1 has been to colleges and finished her education as a full-fledged lady. She goes to visit her aunt in the country, who has work "enough and to spare."

While the aunt insists her best to keep her work up and entertain as well the niece just dresses in her best and looks pretty. Ask her what she intends making of herself, she replies: "Oh, I am accomplished; I am a young lady."

Lady No. 2 would like to take a business course, but has been advised by an American graduate never to go in an office because when you are first employed it will be Miss Brown, will you please do this?" After a while it will be, "Nellie, will you do this?" but finally it will be, "Nell, do this." So she has decided to just stay at home.

Lady No. 3 has just stayed at home and learned from mother to be an ideal housekeeper and home-maker, is a general favorite but always feels as though she lacks so much, but then the way never was clear for her to go to college. Which of these three will make the best helpmate or is the real lady?—Aunt Jane.

About Rich Farmers

We have more leisure nowadays on the farm to use letters as the work has slackened up, and the men are doing the chores, working a few hours in the bush, and going to the mill occasionally, there is lots of time to spare. This is a season of the year when the farmer takes it easy, if he ever does—and the hired man works for his board. I would have written to the Home Club before, but, considering the number of entries that I have al-

ready had compared with most of the contributors, my natural laziness held me back.

I am going to make a new venture in this letter. I am going to start off with a piece of poetry: "He who by farming would get rich, Must dig and plant and hoe and sitch, Work hard all day, sleep hard all night,

Save every cent and not get tight." The notion that brought this piece of poetry into my mind, perhaps I had better call it just verse, was a remark made by a commercial traveller at the village store the other night. "Oh, yes," said he, "the farmers around here are all as rich as us." That verse expresses my ideas of the said riches, and even then I guess we would have to go some to put my means aside.

Now, don't you think that that is just the trouble with farming? We don't get good enough returns for our labor. We are told that we don't produce enough. We never hear that about any other business. If enough is not produced it is just taken for granted that enough is not paid for that article and the price goes up. Well, let me say to you criticizing us farmers for not producing enough put up the price and see how fast we will deliver the goods.

There is not a single farmer in this whole section who has made a fortune, even a good one. About half of them are what we call comfortably situated, and the other half have all they can do to make ends meet; and we are all hard workers. The hired men know that. Although the experience of years has convinced us that we will never make a fortune at our present occupation, we are still sticking at it, saving every cent and not getting tight. Oh, may I hope for better things to come when the Dominion Grade gets more of us farmers in line.—"Another Hired Man."

P. S.—The boss is getting quite enthusiastic about the Grange.

Fight It Out

Does Destruction seem to lurk

All about? Don't believe it! go to work! Fight it out! Danger often turns and flies From a steady pair of eyes; Ruin always camps apart From an undefeated heart. In the spirit there is much, That the world never touch!

Fight it out! Do the portals of your brain Do the freedom of your main Never let them say to you: Push them back! Do not get the efforts airt; If they number half a score; When a hundred of them fall, Then a thousand might prevail. Gerns beneath a close must lie, Ere they sprout; You may blossom, by-and-by: Fight it out!

All the lessons of the time Teach us fair, 'Tis a blunder and a crime To despair! When we suffer, 'tis to bless Other moments with success; From our losses, we may trace Something better in their place. Everything in earth and sky Seems to shout, "Don't give up until you die; Fight it out!"

—Will Carleton. To prevent water in saucopans boiling over, just grease the top of the pan and you will not need to worry about its boiling over the stove.

The Sewing Room

Patterns 15 cents each. Order by number and size. If for children, give age; for adults, give bust measure for waists, and waist for skirts. Address all orders to the FANCY BLOUSE, 7181



For the medium size the over-bow will require 27 yards of material 27 or 36, 1 1/4 yards 36 inches wide with 3/4 yard of silk for the trimming. The guinguette will be need 1 1/4 yards 36, 1 1/2 yards 44 inches wide and 1 1/2 yards 24 inches wide.

SIX GOREL SKIRT, 75c FOR INVALID OR MATERNITY WEAR.



The skirt that is sharply and smart in effect yet which allows of activity is essentially a practical and desirable. This one perfectly fulfills that condition. For the medium size will be required 4 1/2 yards of material 36, 1 1/4 yards 36, 1 1/4 yards 44 inches wide and 1 1/2 yards skirt at lower edge 3 1/2 yards, 2 1/2 yards.

when plaits are laid. This pattern is cut in 3 sizes, small 24 or 25, medium 28 or 30, large 32 or 34 waist.

GIRL'S DRESS, 72c BRAIDING DESIGNS 62c-63c



The girl's dress that is simple and smart in effect yet which allows of activity is essentially a practical and desirable. This one perfectly fulfills that condition. For the 10 year size will be required 4 1/2 yards of material 27, 3 yards 36 or 44 inches wide.

The pattern is cut in sizes for 6, 8, 10 and 12 years of age.

WRAPPER APRON, 72c



The garment that is simple, easily cleaned and yet perfectly protective in sizes for a 34, 36, 38, 40, 42, 44, 46, 48, 50, 52, 54, 56, 58, 60, 62, 64, 66, 68, 70, 72, 74, 76, 78, 80, 82, 84, 86, 88, 90, 92, 94, 96, 98, 100, 102, 104, 106, 108, 110, 112, 114, 116, 118, 120, 122, 124, 126, 128, 130, 132, 134, 136, 138, 140, 142, 144, 146, 148, 150, 152, 154, 156, 158, 160, 162, 164, 166, 168, 170, 172, 174, 176, 178, 180, 182, 184, 186, 188, 190, 192, 194, 196, 198, 200, 202, 204, 206, 208, 210, 212, 214, 216, 218, 220, 222, 224, 226, 228, 230, 232, 234, 236, 238, 240, 242, 244, 246, 248, 250, 252, 254, 256, 258, 260, 262, 264, 266, 268, 270, 272, 274, 276, 278, 280, 282, 284, 286, 288, 290, 292, 294, 296, 298, 300, 302, 304, 306, 308, 310, 312, 314, 316, 318, 320, 322, 324, 326, 328, 330, 332, 334, 336, 338, 340, 342, 344, 346, 348, 350, 352, 354, 356, 358, 360, 362, 364, 366, 368, 370, 372, 374, 376, 378, 380, 382, 384, 386, 388, 390, 392, 394, 396, 398, 400, 402, 404, 406, 408, 410, 412, 414, 416, 418, 420, 422, 424, 426, 428, 430, 432, 434, 436, 438, 440, 442, 444, 446, 448, 450, 452, 454, 456, 458, 460, 462, 464, 466, 468, 470, 472, 474, 476, 478, 480, 482, 484, 486, 488, 490, 492, 494, 496, 498, 500, 502, 504, 506, 508, 510, 512, 514, 516, 518, 520, 522, 524, 526, 528, 530, 532, 534, 536, 538, 540, 542, 544, 546, 548, 550, 552, 554, 556, 558, 560, 562, 564, 566, 568, 570, 572, 574, 576, 578, 580, 582, 584, 586, 588, 590, 592, 594, 596, 598, 600, 602, 604, 606, 608, 610, 612, 614, 616, 618, 620, 622, 624, 626, 628, 630, 632, 634, 636, 638, 640, 642, 644, 646, 648, 650, 652, 654, 656, 658, 660, 662, 664, 666, 668, 670, 672, 674, 676, 678, 680, 682, 684, 686, 688, 690, 692, 694, 696, 698, 700, 702, 704, 706, 708, 710, 712, 714, 716, 718, 720, 722, 724, 726, 728, 730, 732, 734, 736, 738, 740, 742, 744, 746, 748, 750, 752, 754, 756, 758, 760, 762, 764, 766, 768, 770, 772, 774, 776, 778, 780, 782, 784, 786, 788, 790, 792, 794, 796, 798, 800, 802, 804, 806, 808, 810, 812, 814, 816, 818, 820, 822, 824, 826, 828, 830, 832, 834, 836, 838, 840, 842, 844, 846, 848, 850, 852, 854, 856, 858, 860, 862, 864, 866, 868, 870, 872, 874, 876, 878, 880, 882, 884, 886, 888, 890, 892, 894, 896, 898, 900, 902, 904, 906, 908, 910, 912, 914, 916, 918, 920, 922, 924, 926, 928, 930, 932, 934, 936, 938, 940, 942, 944, 946, 948, 950, 952, 954, 956, 958, 960, 962, 964, 966, 968, 970, 972, 974, 976, 978, 980, 982, 984, 986, 988, 990, 992, 994, 996, 998, 1000.

For the medium size will be required 6 1/4 yards of material 27, 5 1/4 yards 36, 5 1/4 yards 44 inches wide with 1 1/2 yard 27 inches wide for the trimming and 1 1/2 yard 27 inches wide for the binding. This pattern is cut 28, 30 and 32 inch bust measure.

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A Country Community League

By Anna B. Taft
At Hanover, N. J., there is a church serving a rural population of about eight hundred, having a parish

of thirty square miles and sixty per cent of the people get their living from agriculture. Rev. R. H. M. Augustine, the pastor of this thoroughly country church, believes in making it serviceable to the farmer. Drury farming is the principal industry, and the farmers have a keen desire to make a living. There is also the question of meeting the needs of the young people locally, or having them become a part of an attractive town four miles away.

To handle the needs of the people a Community League has been formed under the pastor of the church. This League promotes such various enterprises as the celebration of holidays, securing inspiring agricultural leaders, the forming of Boys' Corn Clubs, introducing agricultural courses into the country schools and beautifying the crossroads and corners that too often are neglected in the open country.

AN EXHIBITION IN CHURCH
Early in November an Agricultural Day was held under the auspices of this Community League. There is no parish house in the place, and the church has no adequate parlors, but an old-fashioned gallery surrounds the auditorium and in this a display of agricultural products, such as vegetables, fruits and grains that were grown by the people of the parish. An attractive feature was over 30 entries from the Boys' Corn Club. Prizes were contributed by a prosperous farmer in the locality having a keen interest in the young people, himself an attendant, but not a member of the church.

In the afternoon a dairyman's institute was held, conducted by an expert from the State Agricultural College, and followed by a lively discussion contributed by the farmers attending. A practical result of this meeting was the forming of a cooperative cow testing association.

SPEECHES A FEATURE
In the evening a popular meeting was held, with an address on the "Future Dairy Farming," by a representative of the State Experiment Station, and another on "Woman's Share in Country Life," which was of particular interest to the farmers' wives and daughters assembled. The address was given by a neighboring pastor, showing the relation of simple economic things to the prosperity of the church. The good old country meeting house was filled to the doors.

This pastor does not have to worry about the financial support of his church or the lure of the large city for his young people. The church is not running down, but steadily growing, for it has made itself serviceable to the community, and the people who live there know that it is a necessity for them.

ion, one-fourth teaspoon salt, two teaspoons sugar, and one-eight teaspoon pepper 15 minutes, strain and add to three tablespoons of flour which has been mixed with three-tablespoons melted butter.

EGGS A LA GOLDENROD
Make a thin white sauce, using one tablespoon butter, one tablespoon flour and one cup milk. Chop finely the whites of three hard boiled eggs and add to white sauce with one-half teaspoon salt. Cut four slices of toast into halves lengthwise, arrange on a platter and pour the sauce over. Force the yolks of the eggs through a strainer or potato ricer and sprinkle over the top. Garnish with parsley and toast points.

Cheese is even richer than eggs in the tissue building compound and, according to investigations recently made by the government, is easily digested when properly prepared. Cheese may be cooked with macaroni, potato or rice. It may be served on toast, as a rosbif, or made into a

souffle or fondue.—Charlotte E. Carpenter.

How Oysters May Be Cooked

PANNEE OYSTERS
Place a small round of buttered toast in a patty-pan, moisten with the oyster liquor, cover with oysters and season with butter and pepper. Bake, covered, in oven until eggs ruffe, then season with salt, cook one minute longer and serve in pans.

FIG IN BLANKETS
Drain oysters and wrap each in a slice of breakfast bacon. Fasten with a tooth pick and cook in deep fat. Remove when a golden brown and serve at once.

OYSTER RISOLEES
Roll puff paste very thin, dotting it over with large oysters in pairs, which have been steamed, seasoned and drained very dry. Moisten the paste around the oysters, pressing more paste firmly over them and cut into shape with pastry cutter. Fry golden brown in deep fat.

OLD COUNTRY DOMESTICS

Capable Scotch, English and Irish maids; also Danish girls. Parties arriving twice a month.

Apply now. The Guild, 71 Drummond Street, Montreal, 47 Pembroke St., Toronto, or 227 Bank St., Ottawa.



SETTLERS' TRAINS
-TO-
SASKATCHEWAN
The only through line
LOW COLONIST RATES

For settlers travelling with baggage and effects
Special Trains
Will leave Toronto
Each TUESDAY
MARCH and APRIL
10.20 P.M.

Colonist Cars on all Trains
No charge for berths
Through Trains Toronto to Winnipeg and West

Farm Help AND Domestic Servants

Can be had on application to the Salvation Army Immigration and Colonization Dept.
Head Office, 22 Albert St., Toronto, Ont.
Our men have given satisfaction. We bring out the best class of men and take care in the placing of them.

Why Not Sell It?

Have you any surplus LIVE STOCK for which you want a buyer? Do you want to BELL 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 EXCHANGE to sell? Remember YOU CAN GET next nearly \$1000 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 OF OUR LOW RATE OF ONLY 50 CENTS PER INCHE.
Write FARM AND DAIRY, PETERBORO, ONTARIO, to-day, sending in your advertisement, and take full progressive, satisfactory way of getting the profitable market you desire for what you have to sell.

Fancy Designs For Useful Articles

Designs illustrated in this column will be furnished for prices quoted

GLOVE CASE 10116

This dainty glove case is most popular. The lettering on the case should be padded and worked in satin stitch. Stamped material for working this case (not including the lace) will be sent for 25 cents. A handkerchief case to match No. 10115 can be sent also for 20 cts. Cross barred dimity has been chosen for the set. They can be lined with a dainty lining and the embroidery can be

made to match the color desired for lining. They may be edged with lace or not.



CASHMERE BABY JACKET No. 10118

This dainty infant's sack stamped on cream white cashmere is most attractive, in that it has the embroidery pattern extending around the neck, instead of around the bottom of the garment. The design can be done in white, or a delicate color. The ribbon bows should be of a delicate shade to match the embroidery. It can be lined with white silk, or not, and then the lining button-holed through both materials. Price of jacket stamped on cashmere, only 60 cts.



BURLAP PILLOW COVER, NO. 10142

A serviceable burlap pillow cover, on dark green burlap, is here shown with a conventional design done in wood brown and peacock blue, with a touch of black. All parts of the design should be done in Satin stitch. The straight lines can be done in gold soutache braid outlined on the outer edge with black rope silk. Price of pattern stamped on green burlap, ready for working, only 40 cts.



Substitutes for Meat

Meat contains the compound necessary for the growth and repair of body tissue. In selecting foods to take its place one must choose those having this compound.

Milk contains all the food principles and may be used as a substitute for meat. As cottage cheese, it is particularly rich in protein, the tissue building compound.

Eggs are a valuable substitute, as they can be served in such a variety of ways. Besides the various kinds of omelets, the poached egg, the boiled egg, the fried egg and the scrambled egg, they may be served with cheese, tomato sauce, white sauce, as a souffle, or salad eggs.

The two following recipes make attractive and appetizing dishes:
TOMATO SAUCE
Cook one and three-fourths cups stewed tomatoes with one slice of on-

AYRSHIRES

RAVENSDALE AYRSHIRES



W. J. CARLYLE, CHESTERTVILLE, ONT.

Ayrshires & Yorkshires

For sale, Ayrshires all ages, including one bull fit for service, all bred from top milking stock.
Yorkshire pigs all ages. We are now looking orders for pigs to be shipped in March, April and May.
Apply to Hon. W. Owens, Proprietor, RIVER SIDE FARM, MONTEBELLO, QUEB.

Robert Stinton, Manager

Ayrshires

World's Champion herd for milk and production. Some young bulls and bull calves, all from R.O.P. cows for sale. A grandson of Primrose of Tangierville in the lot.
WOODSIDE SIBBS, Tangierville Farm, ROTSWAY, ONTARIO

Menie District AYRSHIRE Breeders' Club

Ayrshires of all ages, both sexes.
Address M.D.A.B.'s Club, c/o Alex Hume, Menie, Ont.

AYRSHIRES Young Bulls and heifers of good type and breeding, not milked.
YORKSHIRES Also proved Sires, different ages. Orders booked for Ayrshire and Heifers of various ages. Orders for 1912 pigs of both sexes.
Write or phone for prices.
ALEX HUME & CO., MENIE, ONT.
Hoard's Station, G.T.R.

THE SPRINGBANK HERD OF AYRSHIRES
Contains more World's Champion milk and butter producers than any other herd in America. A few choice bull calves from record breaking dams for sale at reasonable prices. Address:
A. S. TURNER & SON,
Buckham's Corners, Ont
3 miles south of Hamilton.

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 margins to the good.
Heading this herd is the imported bull AUCHENBRAIN 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 10,684 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
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MARKET REVIEW AND FORECAST

Toronto, Monday, Feb. 26.—Trade in wholesale articles has been quiet and steady this week. Retail trade has been seriously interfered with by the worst blizzard in some years. The feature of the import trade of most interest to farmers are the continued importations of butter from New Zealand and potatoes from Ireland. It is reported that United States butter will be shipped to meet the demand at some western points. These importations will tend to keep prices down to a normal level.

A review of the produce markets this past week shows few changes of note. Wheat, coarse grains and hay and straw are all steady at last week's prices. There has been a break in the prices of cattle; mink, oxen and hogs are all higher.

WHEAT

Wheat on the local exchange still rules at the prices quoted for the last two weeks. Dealers are beginning to believe that the wheat shortage is not as great as was at first reported. The situation, however, is strong. Alarmists are already beginning to tell about pests infesting next year's crop, but this is purely mythical. No. 1 Northern E is quoted at \$1.15; No. 2, \$1.10; No. 3, \$1.06; Manitoba feed wheat, 76c. Trade in Ontario wheat is slack at 56c to 56c in car lots outside.

COARSE GRAINS

Deliveries have been from prices have dropped on barley. Oats, however, are stronger, and the situation generally is satisfactory to the producer. Quotations are as follows: Barley, malting, 96c to 96c; feed, 65c to 75c; oats, C.W. No. 2, \$1.25; Ontario No. 2, 46c to 46c outside, 46 1/2c here; No. 3, 45c; corn, 70c; peas, \$1.15 to \$1.25; buckwheat, 50c to 70c; and rye, \$1.08 to \$1.09.

HAY AND STRAW

Dealers are paying for No. 1 hay, \$15.50 to \$16; No. 2, \$13.50 to \$14; No. 3, \$10.50 to \$11; baled straw, \$8.50 to \$9. On the retail market choice timothy sells at \$20 to \$25; cover and mixed, \$17 to \$18; there is a firm feeling in the hay market at Montreal. Supplies are plentiful but sufficient to meet all requirements. Nominal quotations are: No. 1, \$15.50 to \$16; No. 2, \$13.50 to \$14; No. 3, \$10.50 to \$11.

MILK STUFFS

The supply of mill stuffs is short of de-

mand and prices are up \$1 to \$2. Quotations are as follows: Manitoba bran, \$25; shorts, \$27; Ontario bran, \$35; shorts, \$37. Montreal prices are unchanged; Manitoba bran, \$24; shorts, \$26; Ontario bran, \$24 to \$25; shorts, \$27.

POTATOES AND BEANS

The importations of Irish potatoes have been generally distributed over Eastern Canada and have held prices steady in spite of a short domestic supply. Many farmers are numbered along with the consuming public so far as potatoes are concerned, and most growers who have a surplus do not need to ship so far as Toronto. Dealers are quoting Ontario potatoes at \$1.65 to \$1.70 on track and \$1.75 out of store. Delawares are quoted at \$1.85 in car lots and \$1.90 out of store. At Montreal stocks are ample to meet all requirements, and prices are a little easier at \$1.65 to \$1.70 for Green Mountains and \$1.60 for Irish. Beans are quoted at \$2.25 to \$2.30 for Prime and \$2.35 to \$2.40 for hand picked. At Montreal, three-pound pickers are \$2.16 to \$2.17.

EGGS AND POULTRY

Receipts of Canadian eggs are more liberal, and prices are a little easier. The recent mild snap started the hens laying. Dealers are paying for new laid eggs, 70c to 40c. No. 1 stock is quoted at 36c to 36c a dozen. In Canada, the retail price is 45c to 50c. At Montreal the only eggs now offering are new laid, coming from the States and the United States. These sell at 25c to 40c for Canadian and 35c for American.

Wholesale quotations for dressed poultry are as follows: turkeys, 12c to 14c a lb.; fowl, 7c to 10c; turkeys, 25c to 28c; ducks, 12c to 14c; geese, 12c to 15c. On the retail market farmers are selling chickens at 15c to 18c; fowls, 10c to 12c; turkeys, 25c to 30c; ducks, 14c to 17c; and geese, 15c to 16c.

DAIRY PRODUCTS

In spite of the importations of New Zealand creamery butter, Canadian creamery prints are still in strong demand. Supplies are plentiful and prices have above an export basis for some time. Such a market depending wholly on local demand cannot be as steady as one. There is an alternative market in Great Britain. Old country markets are considered strong, but at best they cannot be compared with the market offered by our home trade. Butchers explain the latest drop in prices as simply a case of "people can't pay."

We are still optimistic as to the future of beef cattle prices. A break such as all indicated but we cannot permanently impound the market in the present, as all indications point to a beef shortage in the near future. An average of quotations is about as follows: Butcher cattle, choice, \$5.75 to \$4.55; med. to good, \$5 to \$5.70; butcher cows, choice, \$4.75 to \$5.40; com. to med., \$3 to \$4.50; butcher bulls, \$3.50 to \$4.50; export cattle, choice, \$6.25 to \$6.85; med., \$5.25 to \$6.25; stockers, \$3 to \$4.75; canners, \$2 to \$3.75.

With the approach of another milking season, milk cows are in better demand. Choice cows sell at \$50 to \$70; com. to med., \$30 to \$45; and springers, \$40 to \$50. Sheep are still on the upgrade, ewes being quoted at \$4.50 to \$5; bucks and culls, \$3 to \$3.75, and lambs, \$7.25 to \$7.80.

Hops also have advanced \$5, packers now quote \$6.50 to \$6.45 f.o.b. country points and \$6.70 to \$6.75 on the market.

HOLSTEINS

2 YOUNG HOLSTEIN BULLS FOR SALE

Color nearly white, from heavy producing dams and sired by Francy 3rd's Calambit De Kol, whose dam Francy 3rd made 25 1/2 lbs. butter in 7 days.
Also 1912 bull calf bred on similar lines, and a few pure bred Holstein cows at grades. Apply
J. H. CALDWELL, FALLOWFIELD, ONT.

AYRSHIRES

CALEDONIA SPRINGS HOTEL CO.

Has for sale two Ayrshire bull calves of 11 months of good percentage, one from Clio R.O.P. Two 654 lbs. in 294 days. Price, \$36 each.
Also two bull calves of 6 and 8 weeks of good percentage, registered. Price, \$25 each. Apply
MANAGER, CALEDONIA SPRINGS, ONT.

SUNNYBROOK AYRSHIRES

OFFERS FOR SALE

A grand young bull. Good type. Mostly white, with brown spots, 10 months old. Will weigh nearly 200 lbs. His Dam, Grand Sire and Sire's Dam all in Record of Performance with good tests. Price reasonable. Write or phone
E. D. HILLIKER, BURGESSVILLE, ONT.

AYRSHIRE BULLS

Two April, 1911, bulls of choicest breeding and individuality, from Record of Performance cows with high records. Also a very fine Doonbar, 1911, bull calf from a Record of Performance cow (full sister to "Scottie," the Champion sire title of R.O.P. of the district), and by Duke of Ayr (son of the champion R.O.P. cow, Primrose of Tangierville).
Phone Stratford, Ont.

CITY VIEW AYRSHIRES.

R. O. P. cows and two-year-old heifers for sale, one yearling bull and a fine lot of 1912 bull calves. Price reasonable. Write or phone.
JAMES BEGG, R. R. No. 1, St. Thomas.

Burnside Ayrshires

Winners in the show ring and dairy tests. Animals of both sexes, imported or Canadian bred, for sale.
Long distance phone in house.
R. R. NESS, HOWICK, QUEB.

CHOICE AYRSHIRES

Winners in the show ring and dairy tests. Several choice cows and heifers, also bull calves and yearling bulls, for quick sale.
Female, with good tests and oddness Heavy producers. Record of Performance with a speciality.
Also White Wandotte Cockerels. Big strong birds, Martin's strain, \$1.50 each, if taken right away.
Satisfaction guaranteed. Write or come and see them. Nearly fifty head to choose from.
WILLIAM THORN, LYNDECOE, ONT.
Hoard's Book Farm. Long distance phone in house.

MISCELLANEOUS

GATTLE TAGS. Sheep and hog tags, metal ear labels with owner's name, address and numbers, have blue and trouble-free use.
Write for free circular and sample.
E. J. James, Howmansville, Ont.

MERTON LODGE

is now offering registered Tamworth of the choicest breeding and type. Young sows bred to farrow in April; boars ready for service and young pigs of all ages, either sex.
Safe delivery guaranteed.
W. W. GEORGE, CRAMPTON, ONT.

CLYDESDALE STALLION FOR SALE

Registered Canadian-bred Clydesdale Stallion, 4 years old. Nice field brown in color with white points. Sire Montrose
:: Matchless :: dam, Queen of Roses. Apply ::
W. J. COX, Box 755, PETERBORO, ONT.
Phone 1597

HOLSTEINS
AVONDALE FARM HOLSTEINS

Arthur C. Hardy, Prop.

We offer bull calves, all ages, and all out of tested dams. One lot sold by Sir Johanna Colantha Gladi, being a grand son of Colantha, Johanna Lad and Pontine Korndyke and from a 25 lb. three-year-old dam.

A. E. HOHN DORSET SHEEP and YORK SILBIE PIGS

Address all correspondence to
H. LORNE LOGAN, Manager
Brookville, Ont.

HOLSTEINS

If you are wanting HOLSTEINS, any age, either sex, write:

GORDON H. MANHARD,
Manhard, Ont.

GREATEST VIEW HOLSTEIN HERD

Offers bulls from 7 to 11 mos. old sired by Karl Joseph, bred to breeding cows and grand dam have the largest officially authenticated records ever made in Holland. These young dams are large, even-shouldered, high-legs registered cows. For description and prices write to:

ARCHIBALD BROWN, HAPANEE, ONT.

AUCTIONEER My life has been devoted to breeding Holsteins and selling Dairy Cattle. Have sold sales from 15¢ Atlantic to the Pacific My experience is up to you—ROBERT E. HAEGER ALGONQUIN, ILL.

HOLSTEIN BULLS

Sired by Prince Hengerveld Pieterke, whose dam has a record of 35.6 lbs. butter in 7 days and is the highest record daughter of Hengerveld De Kol, who has 115 A.E.O. daughters, 5 with records over 30 lbs. each. The young bulls offered are from dams having records over 20 lbs. each at 3 years old. We are also offering a few young cows due to freshen in spring. BROWN BROS., LYX, ONT.

AUCTION SALE

The Lakeridge Stock Farm will offer for sale at their barns in Brockville on Monday, March 15th, 1912, Pure Bred Holstein-Friesian Cattle and Registered Clydeale Maras. Col. D. L. Deane, Columbus, Ohio, will conduct the sale, which will be held under cover, rain or shine. Send in your name for catalogue and arrange to attend this sale. E. F. OSLER, BRONTE, ONT.

1 One Yearling Bull
Holstein

His dam a good Officially Tested young cow. Price Moderate.

Write for particulars.

E. B. MALLORY, Frankfort, Ont.

Purebred Registered
HOLSTEIN CATTLE
The Greatest Dairy Breed
See our FREE CATALOGUE

HOLSTEIN Frieze Assn. Box 148, Bantelove Vt

FOR SALE
BULL CALF, BORN FEB. 2

Two yearling bulls, whose four nearest dams average 27 lbs. of butter in 7 days. Another bull, May 25, dam first cow in Canada of her age to make 20 lbs. of butter in 7 days. Bull calf born Jan. 10; dam, daughter of dam of number 2 calf with official record at 2 years and 13 days of 18.9 lbs. butter in 7 days. Also two-year-old stock bull.

David Coughell, Yarmouth Centre, Ont.

Ourvilla Holstein Herd

Some of the young things that should make good at maturity. Calamity Teak Dekol B. G. P. at 2 months, 27.75 lbs. in 10 months 6 days. National Queen Dekol B. O. P. at 2 years 2 months, 14.75 lbs. in 12 months, 11.25 lbs. in 12 months. 2nd, age 2 years 3 months, 12.84 lbs. in 12 months. Belle Devoey 4th, age 1 year 11 months, 11.30 lbs. in 10 months.

Bull calves and 7 ready for service from the best of these for sale at the lowest price fit of the increase in value of these as the dams grow older.

EDMUND LAIDLAW & SONS,
Edm. West, Ont.

MONTREAL HOG MARKET

Montreal, Saturday, Feb. 27.—The market here for live hogs is very firm, and prices are steady at the level reached last week. Every day is offered as closed at from \$7.35 to \$7.50 a pair, for selected lots weighed off cars. There has been an active demand for good stock, and sales have been made at about \$10.25 a pair, for fresh killed abattoir stock. Heavy dressed are quoted at \$9.25 to \$9.50.

MONTREAL BUTTER MARKET.

The butter market is firm, with prices steady and mostly offered at a good quality being quoted at 34c a lb., with ordinary grades obtainable at 33c to 33 1/2c. The supply of Canadian butter is rapidly disappearing, and the importations of New Zealand creamery are just sufficient to prevent any further advance in the market. There is a general feeling that prices have reached their limit, and that the next move when it comes will be downward, but it is not likely for some time the advent of new butter in large quantities, of a possible break in the American market, looking for a time to send butter across the lines at low prices.

SALE DATES CLAIMED

April 4, 1912, W. McCormick, Morewood, Ont., Holsteins.

March 6, 1912, Nelles and Woodley, Buson, Ont., Holsteins.

March 25, 1912, Macklin, Weston, Ont., Holsteins.

March 27, 1912, C. C. Kettle, Wilsonville, Ont., Holsteins.

March 14, 1912, G. Forester, Gormley, Ont., Holsteins.

March 27, 1912, C. C. Kettle, Wilsonville, Ont., Holsteins and Yorkshires.

An unusually good bull is being offered by Mr. B. Kelley, a Holstein breeder at Tillsonburg, Ontario. As will be noted from the advertisement in another column Mr. Kelley gives proof of this bull being one of our bulls bred in Ontario. The bull is now on the market because Mr. Kelley has an other young bull of this quality to take his place, and as his cows are all bred he has decided to let this bull go at a very reasonable price. This bull is a sure getter, gentle and easily handled, and is a show bull and in a good condition. Mr. Kelley will be pleased to show the bull to anyone calling his farm, which is inside the town of Tillsonburg, and he will meet any train on receiving notification.

J. H. TAYLOR'S HOLSTEINS

Mention is made in a recent letter to Farm and Dairy by Mr. J. H. Taylor, Scotland, Ont., of the stock he is offering at advertisement elsewhere in this issue. Mr. Taylor says:

I have at the head of my herd Lorne Cornucopia Lad, 6159 and 7286. He was imported from Stevens Bros. and his sire is the noted bull Aggie Cornucopia Johanna Lad with 62 A.E.O. daughters, and whose dam, Aggie Cornucopia Pauline, has produced 659 lbs. milk testing 4.17 per cent. and 34.3 lbs. butter in 7 days as a 4-year-old cow. This record cow has already produced 4 daughters that average 23.95 lbs. butter in 7 days, and a son with 26 A.E.O. daughters. Also I have a 2-year-old heifer, Aggie Cornucopia Lorne in calf to this former sire, and whose sire, Pontiac Hermes, has as his sire Hengerveld De Kol, who has 115 A.E.O. daughters and 29 proven sons. Pontiac Hermes' dam has an A.E.O. record of 47.4 lbs. milk in 23.70 lbs. butter in 7 days.

(Continued next week.)

Great Herd Header for Sale

One of the best young Holstein Bulls to be found anywhere I am offering for sale is a 2-year-old bull with the best of official backing. His dam, Lady Angie DeKol, made 66.33 lbs. milk; 12.75 lbs. butter in 7 days. His dam's average 4.17 per cent. in succession, 1906-1909 in dairy cow, yearling. VERAIGE PER CENT 141.45. Sire Prince Aberkirk Mercena, whose dam and two G-Dams average 27 lbs. of butter in 7 days. Bull in months old, sound and sure. Write for price, or better still, come and see him. R. J. KEENE, BRIDG, ONT., Campbelltown Farm.

WRITE TO-DAY

For our proposition telling how any good dairyman may own a Registered Holstein Bull from a Herd of Performance dams without investing a cent.

MONRO & LAWLESS,
Elmdale Farms, Thorold, Ont

HOLSTEINS
FAIRVIEW FARM HERD

Too much money is spent every year for poor bulls. Why not buy a good one? Sons of Pontiac Korndyke, Rag Apple Korndyke, and Sir Johanna Colantha Gladi for sale; 150 here in herd. Come and see them or write.

E. H. DOLLAR, Hevelton, N.Y.

H. F. BULL
FOR SALE

Grandson of Pontiac Korndyke and Hengerveld De Kol
Eleven months old. Mostly white, strong, active and well developed. Now fit for service.
A. A. FAREWELL, OSHAWA, ONT.

RIVERVIEW HERD

Offers bull valued from \$2 to 10 male old sired by KING IREBELLE WALKER, whose 3 grand dams and sires average 30.18 LBS BUTTER in 7 DAYS and 15.97 lbs. in 30 days with dams of likewise breeding, at exceptionally low figures, to make room.
P. J. SALLEY, LACHINE RAPIDS, QUE.

LIVE STOCK AUCTIONEERS

We are in a position to handle your sale promptly in an up-to-date manner. Especially qualified to sell Holsteins.
F. H. McCallough & Son, Navan, Ont.

High Testing Nidger Korndyke De Beer at head of

Lynden Holsteins
Bred by J. R. Lynden
15.77 lbs. of butter in 7 days testing 4.78 per cent. fat. His sister, Boutis Pouch DeKol, 25.25 lbs. butter 7 days testing 4.38 per cent. fat. Champion 5-year-old living in Canada.

Buy a bull to head your herd, a full brother to the above sire. Also a son of him from a 7.25 lb. dam testing 4.33 per cent. fat at 31 years of age. Large sire, bred in Canada by a cow over 10 years old. Also bull calves. Come and see them within 1 mile of station.

S. LEMON, LYNDEN, ONTARIO

REGISTERED
3 Holstein Cattle

to be sold at Public Auction

The undersigned will offer for sale by Public Auction at

HOMEDALE STOCK FARM

one mile north of Boston, Ont., on

Wednesday, March 6th

1912, at 1 o'clock sharp

21 cows and heifers with records ranging from 40 lbs. milk per day to two-year-olds to 72 lbs. milk per day as mature cows.

5 yearling bulls, from large producing dams sired by a son of "Tidy Aberkirk's Mercena Posch" whose seven nearest dams average 27.19 lbs. butter in 7 days.

Also a number of male and female calves, sired by "Sir Mercena Aberkirk Posch" whose three nearest dams average 25.46 lbs. butter in 7 days and 83 lbs. milk in one day.

TERMS: \$50 and under cash; over that amount 8 months credit on bankable paper. 3 per cent. off for cash.

Catalogues ready February 17th. Sale, storm or fine.

All trains met at Waterford on freedom of day of sale. Lunch at noon for those coming from a distance. Sale at 1 o'clock sharp as parties may catch evening trains home.

NELLES & WOODLEY, Proprietors
BOSTON, ONT.

C. D. NELLES, Clerk

HOLSTEINS
Summer Hill Holsteins

Present offering: 15 yearling heifer, 1 calf, 10 imported heifers (some bred), 1 bull calf from a 24 1/2-lb. junior 4-year-old, 1 bull calf from a 29 1/2-lb. junior 4-year-old, 1 month bull from a 25-lb. junior 4-year-old, 1 main stock bull, who has sire record 3-year-old for yearly production. If you are interested in Holsteins, come and see the only herd in Canada, where there are 7 cows averaging almost 10 lbs. butter each in 7 days. Every record made on the farm.

Trains met when advised. Bull from D. C. FLATT & SON, HAMILTON, ONT. R. F. D. No. 2.

FERNDALE STOCK FARM
Clydeale Horses and Holstein Cattle

For sale—Four bulls, 10 months old, got by Korndyke King Schindler, who is closely related to Pontiac Korndyke, who sired two 25-lb.

Also, 20 (Grade Cows, due to freshen a January 15 Grade Heifers, raising 2 yearling, bred to freshen in March and April. FRIEHLER BROS., MT. ELGIN, ONT. Bell Phone.

WOODLAND HOLSTEINS

A son of Nettling and Angie De Kol, 10 months old, P. test 11.96 lbs. milk in 7 days, 1.98 lbs. butter. This champion cow of Canada, 1909, for sale.

A son of Aggie Schilling De Kol, 10 months old, P. test 11.96 lbs. milk in 7 days, 1.98 lbs. butter. This bull, also offered. He is full brother to Woodland Queen De Kol, B. R. records at 2 yrs. 11.77 lbs. milk, 2.01 lbs. butter in 7 days. A 3 yrs. 10.47 lbs. milk, 1.94 lbs. butter, 7 days.

Both sired by Woodland Barocatt Lad. Write for prices and particulars. W. M. VAN PATER & SONS, R. R. No. 1, Avlymer, Ont.

25 Pure Bred Holsteins

Two years of age. Well bred and in pink of condition, bred to a good bull. Nearly all due to freshen in March. A select bunch of heifers. Will sell a few or all of them. Price reasonable. Grand bull of great quality. Son of a 25 1/2 lb. cow whose milk stood 3 per cent. fat. Trains met if wished.

R. CONNELL, ROBEUCK, ONT. Rural Telephone. Grenville Co.

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AYSHIRE NEWS

Farm and Dairy is the recognized exponent of the dairy interests of Canada...

WHICH IS CHAMPION?

When the record made by Eileen, the Ayrshire cow owned by G. D. Mode of Vancouver, Ont., was first announced...

The records of these two cows, however, are not to be compared, as the conditions governing Canadian Record of Performance and the American test are altogether different.

Under such conditions it is impossible to state which cow should be regarded as holding the world's record.

ABOUT MAKING SALES OF AYSHIRES Mr. Frank A. Wight, of Theford, Ont., R.R. No. 4, writes Farm and Dairy...

It is worth while bearing in mind how satisfactory it is to make sales for pure bred dairy cattle through advertising the name in the live stock columns of Farm and Dairy.

When one thinks of it, it is really remarkable that a publication such as this at so low a cost as 9c cents for a one-inch advertisement will take one's message to nearly 15,000 buyers.

Aggressive breeders who are in the business for the money they can make out of it take the progressive way of making sales for their best stock.

A GREAT SALE OF AYSHIRES

Heading W. J. Carlyle's herd of Ayrshire is the imported bull, Scotchburn Albert, bred by that famous Scotch breeder, Mr. Wallace.

W. J. Carlyle's sale on March 15th affords an opportunity to those who are already in the business to materially increase their stock and to those who are about to enter into the business of breeding pure bred Ayrshires to procure foundation stock that cannot easily be obtained.

Charges of sale giving full particulars will be furnished on application to Mr. W. J. Carlyle, Chesterville, Ont.

OFFICIAL RECORDS OF HOLSTEIN COWS FOR 1911

National Queen DeKok (10134), at 3y. 3m. 23d. of age; 15.64 lbs. fat, equivalent to 19.45 lbs. butter; 497.7 lbs. milk. Owned by E. Laidlaw and Sons, Ayrmer, Ont.

Countess Wayne Poch (10473), 13.49 lbs. fat, equivalent to 17.15 lbs. butter; 527.1 lbs. milk. Owned by L. H. Laidlaw and Sons, Ayrmer, Ont.

Lovena Besse DeKok (16623), at 3y. 3m. 23d. of age; 12.67 lbs. fat, equivalent to 15.99 lbs. butter; 563.3 lbs. milk. Owned by Frank M. Johnson, Boston, Ont.

Ladoga Idaline Veeman (11230), at 3y. 5m. 14d. of age; 11.64 lbs. fat, equivalent to 14.56 lbs. butter; 525.6 lbs. milk. Owned by A. E. Hulet, Norwich, Ont.

Angie DeBoer (12835), at 2y. 9m. 14d. of age; 13.82 lbs. fat, equivalent to 17.23 lbs. butter; 536.1 lbs. milk. Owned by M. H. Haley, Springfield, Ont.

Calropsom Aggie (14533), at 2y. 7m. 14d. of age; 14.52 lbs. fat, equivalent to 18.27 lbs. butter; 539.9 lbs. milk.

Thirly-day record, at 3y. 7m. 14d. of age; 14.16 lbs. fat, equivalent to 17.81 lbs. butter; 545.1 lbs. milk. Owned by Edmund Laidlaw and Sons, Ayrmer, Ont.

Madam Pontiac Koryska (15249), at 2y. 6m. 7d. of age; 13.13 lbs. fat, equivalent to 16.61 lbs. butter; 547.5 lbs. milk. Owned by C. E. Smith, Scotland, Ont.

Thirly-day record, at 2y. 5m. 25d. of age; 13.12 lbs. fat, equivalent to 16.53 lbs. butter; 565.2 lbs. milk.

Thirly-day record, at 2y. 5m. 25d. of age; 13.12 lbs. fat, equivalent to 16.53 lbs. butter; 565.2 lbs. milk. Owned by A. E. Hulet, Norwich, Ont.

Madam Pauline Abbecker (14976), at 1y. 10m. 15d. of age; 9.24 lbs. fat, equivalent to 10.30 lbs. butter; 577.5 lbs. milk. Owned by A. E. Hulet, Norwich, Ont.

Daisy Abbecker Mercena (15115), at 1y. 9m. 26d. of age; 8.16 lbs. fat, equivalent to 9.22 lbs. butter; 577.7 lbs. milk. Owned by M. H. Haley, Springfield, Ont.

Thirly-day record, at 1y. 9m. 26d. of age; 53.29 lbs. fat, equivalent to 66.61 lbs. butter; 551.9 lbs. milk. Owned by E. Laidlaw and Sons, Ayrmer, Ont.

Ontario Maid End Star (11564), at 2y. 11m. 14d. of age; 12.02 lbs. fat, equivalent to 15.03 lbs. butter; 559.5 lbs. milk. Owned by Robert McCueen, Courland, Ont.

Aeggie May Beets (11845), at 2y. 9m. 19d. of age; 11.29 lbs. fat, equivalent to 14.23 lbs. butter; 551.1 lbs. milk. Owned by Dr. L. de L. Harwood, Vaudreuil, Que.

Evergreen DeKok (14586), at 1y. 8m. 23d. of age; 11.25 lbs. fat, equivalent to 14.15 lbs. butter; 555.1 lbs. milk. Owned by Geo. W. Anderson, Rosemont, Ont.

Inka Poch Hengerveld (16099), at 1y. 11m. 27d. of age; 10.85 lbs. fat, equivalent to 13.54 lbs. butter; 551.7 lbs. milk. Owned by Bollert and Leuzner, Tavistock, Ont.

Mercena Schulling 3rd (11817), at 2y. 7m. 23d. of age; 10.74 lbs. fat, equivalent to 13.42 lbs. butter; 529.3 lbs. milk. Owned by Jas. Bettie, Norwich, Ont.

Beale Mercena Abbecker (14749), at 1y. 11m. 17d. of age; 10.72 lbs. fat, equivalent to 13.40 lbs. butter; 513.2 lbs. milk.

Fourteen-day record, at 1y. 11m. 17d. of age; 19.83 lbs. fat, equivalent to 24.41 lbs. butter; 601 lbs. milk. Owned by E. J. Kelly, Tillsonburg, Ont.

Inka Mercedes Hengerveld (15486), at 1y. 9m. 6d. of age; 10.63 lbs. fat, equivalent to 13.29 lbs. butter; 562.7 lbs. milk. Owned by Bollert and Leuzner, Tavistock, Ont.

Glenzie of Campbelltown (16181), at 1y. 11m. 24d. of age; 10.55 lbs. fat, equivalent to 13.17 lbs. butter; 511.3 lbs. milk.

Fourteen-day record, at 1y. 11m. 24d. of age; 20.30 lbs. fat, equivalent to 25.38 lbs. butter; 614.8 lbs. milk. Owned by E. J. Kelly, Tillsonburg, Ont.

Velstra Mollie (11370), at 2y. 6m. 23d. of age; 10.5 lbs. fat, equivalent to 13.13 lbs. butter; 534.8 lbs. milk. Owned by Geo. W. Anderson, Rosemont, Ont.

Mercena of Campbelltown (14013), at 2y. 6m. 22d. of age; 10.49 lbs. fat, equivalent to 12.91 lbs. butter; 529.13 lbs. milk. Owned by E. J. Kelly, Tillsonburg, Ont.

Ida Veeman (15549), at 2y. 6m. 3d. of age; 10.48 lbs. fat, equivalent to 13.11 lbs. butter; 545 lbs. milk. Owned by M. H. Haley, Springfield, Ont.

Ladoga DeKok of Campbelltown (14627), at 1y. 11m. 16d. of age; 10.34 lbs. fat, equivalent to 12.93 lbs. butter; 524.1 lbs. milk.

Fourteen-day record, at 1y. 11m. 16d. of age; 19.83 lbs. fat, equivalent to 24.39 lbs. butter; 614.8 lbs. milk. Owned by E. J. Kelly, Tillsonburg, Ont.

Triumph DeKok (14262), at 1y. 9m. 23d. of age; 10.22 lbs. fat, equivalent to 12.77 lbs. butter; 561.62 lbs. milk. Owned by Geo. W. Anderson, Rosemont, Ont.

Inka Mercedes Poch (12941), at 1y. 10m. 14d. of age; 10.11 lbs. fat, equivalent to 12.64 lbs. butter; 529.46 lbs. milk. Owned by Bollert and Leuzner, Tavistock, Ont.

Maye DeKok B (16328), at 2y. 6m. 1d. of age; 10.10 lbs. fat, equivalent to 12.62 lbs. butter; 551.3 lbs. milk.

Fourteen-day record, at 2y. 6m. 1d. of age; 19.31 lbs. fat, equivalent to 24.14 lbs. butter; 609.5 lbs. milk. Owned by T. W. McCueen, Tillsonburg, Ont.

Kordyke Maid Beets (19411), at 2y. 10m. 6d. of age; 9.91 lbs. fat, equivalent to 13.39 lbs. butter; 523.2 lbs. milk. Owned by L. M. Haley, Springfield, Ont.

Greguit Hengerveld Keyes (15100), at 1y. 11m. 14d. of age; 9.78 lbs. fat, equivalent to 12.13 lbs. butter; 531.8 lbs. milk. Owned by Bollert and Leuzner, Tavistock, Ont.

Shool Ball Segis (15051), at 2y. 2m. 30d. of age; 9.68 lbs. fat, equivalent to 11.90 lbs. butter; 571.7 lbs. milk. Owned by Dr. L. de L. Harwood, Vaudreuil, Que.

Homewood Canary Mercena (15563), at 1y. 9m. 1d. of age; 9.41 lbs. fat, equivalent to 11.22 lbs. butter; 570.8 lbs. milk. Owned by John Kaufman, Tavistock, Ont.

Bell of Campbelltown (12136), at 2y. 11m. 5d. of age; 9.10 lbs. fat, equivalent to 11.38 lbs. butter; 577 lbs. milk. Owned by E. J. Kelly, Tillsonburg, Ont.

Homewood Calamity Queen (12266), at 2y. 9m. of age; 9.06 lbs. fat, equivalent to 11.22 lbs. butter; 539 lbs. milk. Owned by L. M. Haley, Springfield, Ont.

Kuperus Pontiac Walker (10488), at 2y. 6m. 22d. of age; 8.64 lbs. fat, equivalent to 10.20 lbs. butter; 575.8 lbs. milk. Owned by C. E. Smith, Scotland, Ont.

Madam Pauline Abbecker (14976), at 1y. 10m. 15d. of age; 8.24 lbs. fat, equivalent to 9.30 lbs. butter; 577.5 lbs. milk. Owned by A. E. Hulet, Norwich, Ont.

Daisy Abbecker Mercena (15115), at 1y. 9m. 26d. of age; 8.16 lbs. fat, equivalent to 9.22 lbs. butter; 577.7 lbs. milk. Owned by M. H. Haley, Springfield, Ont.

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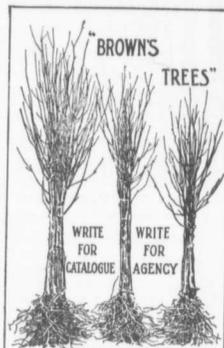
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"I worked 50 years to make a cleanly, strong, sure roof at a low cost. I had barns mostly in mind. When I started, bush fires were common. Cedar shingles went up like tinder from a single spark. Lightning burnt barns again and again. Leaky roofs rotted hay and produce by the ton—they let water rot the barn framework. Oshawa shingles stop this."

"Thus, I became one of the first metal shingle men in the world. I aimed to make a roof that would save twenty times its cost by saving a barn frame and foundation, as well as the stuff put into the barn, which represented thousands and thousands of dollars risked over a period of years under a poor roof."

"It Took Years for Me to Get the Design of My Metal Shingle Right."

"I thought it was easy. It was hard. It was a big contract. I didn't dream of what any roof has to stand. I thought about all a roof did was to let rain run off it, and keep in place the rest of the time. I found I had about twenty-five problems to answer at once in a single design."

"My roof had to have 'give' in it, so it would stretch in the hot sun and shrink in zero weather. It had to be ice proof, or lodged thaw-water would gouge seams apart. It had to be smooth, or lodged dirt would rust it. It had to cover its own nails, or the roof would leak. My roof had to be layable by anyone."

"My work was, I had to design a shingle that couldn't be laid face-down, or sideways, or upside down, or crooked, or be marred in the laying, or be smashed on the road between my factory and the place where the roof was. I found my shingle needed ventilating places in it that would let air out but wouldn't let water in. It had to be wind proof. Yes, sir,

these things were all worked out by me in 50 years.

"I started to make a spark-proof and lightning-proof roof. I ended by getting one of the best roof shingle designs ever made. My roof has more experience and skill and years behind its design than any roof you can get in metal."

"I Had to Wait Fifty Years for My Last Big Point. This Was It."

"My business was world-wide by this time. My shingles were selling in Australia, Japan, South Africa. Governments specified them for roofs."

"All this time I was getting my design right little by little. But, do what I could, I had been troubled by the metal in it. It seemed impossible to get a metal which might not rust. I had to take the best metal I could get. I needed a strong, light, absolutely non-rusting metal. At last, I found a hint in Europe."

"I followed up this metal. At last I devised a non-rusting 100-year metal, which was non-corrosive. The moment I put this metal into my shingle design, I got at once a 100-year roof. This is the roof you can get from me at a low price."

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"My metal shingle is not trash. You can get trashy stuff at a cheaper price. (It will cost you thousands of dollars in produce.) Yet you can buy my shingle at a low price. Its quality is kept high and its price is kept low by big, steady sales all over the world. If you do not look into my 100-year shingle, you are not treating your building right. Get a 100-year Oshawa roof for your building. It will save your building, and save you thousands of dollars in produce you worked hard to grow and harvest."

"Get My Book about This 100-Year Roof. It Has Building Hints for You FREE."

"I have helped you and all other builders with a roof I am proud of—a roof I know is right. I want to do more. I made my book 'ROOFING RIGHT' to tell about my roof. But I made it worth while for those who do not take my roof."

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