

Issued Each Week—Only One Dollar a Year

VOL. XXX.

NUMBER 14

FARM AND DAIRY

RURAL HOME

PETERBORO, ONT.

APRIL 6,

1911.



REMEMBER THAT THE CALVES OF TO-DAY MAKE THE COWS OF TO-MORROW

Heifer calves of dairy breeding, backed by sires and dams of known heavy milk production, soon develop into the heavy yielding cows so much in demand and at such fancy prices as now prevail. If calves are bred right and afterwards fed right, they may be counted on to out-distance even their 6,000-lbs.-of-milk dams by 2,000 lbs. of milk per year. This is worth working for and it is the reason why you should have a good pure bred dairy sire to use on your herd. Our illustration shows some imported calves brought in from the States last spring by W. B. Allison, Dundas Co., Ont.

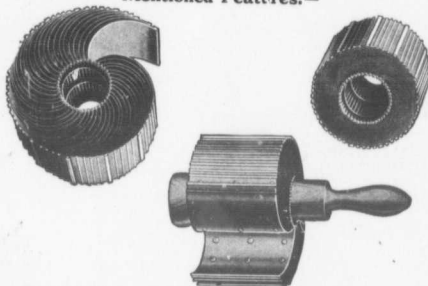
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1. The Link-Blade Skimming Device
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Note the Principal Advantages of the Above-Mentioned Features:—



The Link-Blades closed for skimming, open for cleaning and held by standard for convenience in handling.

1. Increased capacity of from 30 to 50 per cent. over the most efficient of previous devices, combined with very clean skimming under a wide range of conditions as to milk, temperatures, etc.
2. Great convenience in cleaning and handling, because the blades do not come apart, and do not have to be re-assembled in any particular order.
3. The device being expandable, and fitting the bowl snugly, it can never become loose, or shift in the bowl, and throw the same out of balance.
4. The pressure being transmitted through a series of brass rivets, there is no strain on the blades themselves, and there is no rusting formed by the points of contact of the rivets.
5. The device, being much more efficient, is a great deal lighter and smaller in order to do the same amount of work, making it still easier to handle, and requires less power to run than other devices of same capacity.

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We also manufacture the Kemp Manure Spreader

THE W. I. KEMP COMPANY, LIMITED, STRATFORD, ONT.

Comment on Cheese Trade

Gardner, Thomas & Co., Bristol
The condition and general turn out of Canadian cheese during 1910 was, in our opinion, good, and the cheese have shown up well.

There are one or two defects, which cause a good deal of trouble and have been especially noticeable this past season. There has been a tendency to looseness. This, of course, is a defect which should be obviated. Also sufficient care has not been taken to see that the cheese is properly boarded, as frequently owing to lack of a small board they have struck in the cheese box, and we have also noticed there have been a good many parcels that have shown a dampness if kept any considerable time, as if the moisture had not been properly pressed out.

It is difficult to make any forecast with regard to the future of the market owing to the uncertainty of the effect the Reciprocity measures will have on dairy produce. Still, as the world's supply to the English market for this season appears to be heavier than for some three seasons past and also the spring likely to open out earlier, this will in a measure affect any small supplies which may be sent into the States. The trend of price, given fair weather conditions, should be for the summer months on an easier basis than for the past two summers.

New Zealand cheese seems to have about reached the maximum output for a time. Considerable attention is being given to the matter by Australian dairymen, and we look for larger supplies from that continent. Some of the samples we have seen this season have shown a very great improvement upon previous seasons.

Review of Cheese Trade, 1910

Herbertson & Hamilton, Glasgow
A somewhat unsatisfactory season was that of 1910 in the Canadian cheese trade. The quality on the whole has been about average, but we have had reason to complain of the keeping properties of not a few of the lots we have handled. Within a short time after arrival a dampness has come out on top and bottom, and the condition has, in consequence, been adversely affected. We think this is caused to a large extent by the cheese having been boxed too soon after being made, and before the necessary and natural evaporation had taken place. Probably the low temperature at which they are in some cases kept at the factory, and also on board the steamers in transit, may have had something to do with this, and it is just possible that the endeavor to make cheese that will mature early may have also contributed to this unsatisfactory result.

Dealers in Canadian cheese have had considerable difficulties to contend with most of the past season, as prices have been too dear in comparison with our home make, which, although not quite up to average quality, has been larger than usual, and has sold at very moderate prices until within the past two months.

MULTIPLE SHOPS TO BLAME

They have also had to contend with a decrease in the popularity of the Canadian cheese among retail buyers. This has largely been brought about by the fact that certain of the multiple shop firms have been using Canadian cheese as a catch-penny to sell their tea and margarine, so that it has been impossible for the ordinary dealer to get back his own money on Canadian cheese in a fair way of trade. While the c.i.f. price was ranging from 53s. to 56s. a cwt., the retail price in the multiple shops was 6½d. a lb., or 60s. 8d. a cwt., set up in pounds or half pounds, with the cloth stripped, so that there

was absolutely no profit in the business on its own basis.

The consequence has been that retail distributors have given Canadian cheese the cold shoulder as far as possible, and have devoted more attention to home make, and have also pushed the sale of Dutch and other makes of Continental cheese from which there was a possibility of making a living profit.

Locally we do not think there have ever been such a small trade in Canadian cheese, as certainly not for many years, as we have seen this past season.

Regarding New Zealand competition this will always be severely felt in the earlier months of the Canadian season as New Zealand cheese are then at their best. Last year the make has not been so large as expected, the weather in certain districts having been hot and dry, so that it is quite likely prices may rule higher in the late spring and early summer months than was the case last season.

We are interested in watching the progress your Reciprocity measures with the United States, the passing of which we think will be for the benefit of both countries and ultimately not harmful to us.

Looking at the fact that dairy produce in the States has for years been held at extreme prices owing to the protective tariff, we think it more than likely that a considerable demand will be experienced for Canadian cheese and that our States as this tariff is swept away; but no doubt prices will be greatly reduced in comparison with recent years, as far as the States are concerned. We believe, however, that with a reduction there to reasonable prices, the consumptive demand will be stimulated to such an extent that a profitable outlet will be found for all dairy produce of desirable quality.

The amount available for export to this side will probably be reduced for a time, but with the improved type of cows now being raised in Canada, the natural increase of the milk supply should in a few years produce a sufficient quantity of cheese to provide for all requirements.

Praise for Our Cheese

Editor, Farm and Dairy.—We consider the quality of the cheese received from Canada throughout the past 12 months as having been more than usually uniform and good—better than in any previous season. During the whole year, we have seen very little cheese of indifferent quality. Moreover, the cheese has kept well after arrival here, and has given satisfaction to customers. Proof of this is evident in the fact that at the present time, Canadian cheese on the market here is selling at from 2s. to 4s. in excess of New Zealand.

With regard to forecasting the market, we think there is a good, steady demand throughout the coming season, with fair average prices. We do not look for anything very particularly high or low. There is likely to be a good consumptive demand here.

With respect to the Reciprocity measures, this is a matter in which we, on the spot, are much better able to judge than we are here; but as far as England is concerned, the general opinion seems to be that it would be preferable if the treaty were not passed into law.

You ask us whether we have any suggestions to put forward regarding defects in your cheese. As mentioned above, we think the make last season was very satisfactory indeed. All the Peterborough cheese that we received were of excellent quality, leaving little or nothing to be desired.—Lovell & Christman, Limited, per John C. Lovell, London, E.C.

Issued
Each Week

Vol. XXX.

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Issued
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Vol. XXX.

FOR WEEK ENDING APRIL 6, 1911.

No. 13

THE DIRECT AND INDIRECT EFFECTS OF RECIPROCIITY UPON DAIRYING

Dr. C. A. Publou, Prince Edward Co., Ont.

Higher Prices for Dairy Products Prevail in the United States than in Canada. A Softer Cheese—meaning More Profit to us—will suit the trade. How the Butter Market will be Affected. A great demand and Good Prices for Cream in the United States. All in Favor of our Dairymen

TO predict with absolute certainty the future of dairying in Canada and the United States is an impossibility whether reciprocity becomes law or not. No man can predict the future, but persons who are familiar with all the details and history of an industry can usually estimate with considerable accuracy the probable course that that industry is likely to follow for some time in the future. It is this faculty commonly called "foresightedness," which so often determines a prosperous career for men of active business life. In attempting therefore, to predict the future effects of reciprocity in dairy products, should it become law, we must simply depend on a knowledge of the conditions surrounding the dairy industry in Canada, the United States and the other countries, which would be indirectly affected by the change.

DAIRY CONDITIONS IN CANADA

Let us start with our own country, Canada. Here the dairy industry is one of our greatest assets. Ontario and Quebec produce large quantities of cheese and butter, Ontario leading in cheese and Quebec in butter. Prince Edward Island produces a limited quantity of cheese and the western provinces very little cheese, but a fair quantity of gathe.ed cream butter. Besides these we have that part of the industry in all the provinces made up by the milk supply of the towns and cities. In the United States we find the great bulk of cheese being made in the States of New York, Wisconsin, and Michigan; the greatest amount of butter is made in the Western States.

ENGLISH DEALERS SET THE PRICE

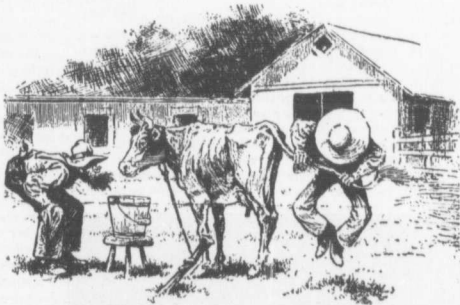
In Canada, outside of home consumption, the great majority of the cheese are exported to England, where the price is more or less uniform, being controlled by the European merchants and dealers. We often speak about controlling the cheese market of England, but as a matter of fact the English dealers actually control the markets for Canadian cheese.

In the United States practically all cheese is consumed by the American people, a few being exported annually for foreign use, but these are almost entirely of an inferior grade, unsuited for the home markets. In reporting on these exports for the past week the New York Produce Review says: "Most of the cheese exported have been cheese unsuitable for local use, being slightly acid or otherwise defective." We seldom hear of Americans exporting good cheese. They are too scarce for home use, the demand being so

great that it is possible to sell cheese made from milk from which half the fat has been removed for almost as much as the highest quotations for finest whole milk cheese.

COUNTRIES THAT MAKE CHEDDAR CHEESE

Very few countries other than Canada make cheese of the cheddar type. England and Scotland make quite a number and New Zealand quite a large amount at the opposite season of the year to ours. A number of other countries, however, make excellent butter, including Denmark and Sicaria. Both these countries secure prices for their butter in England higher than



Not the Kind They Were Familiar With

City Milkman—(Who has prospered and bought a cow, to avoid the middleman's profit): Pump harder, Jimmy! Day ain't a drop coms yet.

North Western Agriculturist.

the prices offered for Canadian butter, but lower than the average prices paid for butter in the United States. The supply of both is readily saleable in England.

Now, if the reciprocity agreement should go into effect there are a number of changes which could occur, but it seems to the writer that as a result the dairy products from all countries favored directly or indirectly by the agreement would tend to reach the markets most easily reached, and where the highest prices were obtainable. With cheese, about the only possible course of events would be for a large number of Canadian cheddar cheese to go into American markets where the market prices at present are about three cents a pound in advance of Canadian quotations.

CHEESE WOULD BE HIGHER IN ENGLAND

With the increased shipments to the States we would expect a scarcity in England with consequent higher prices. England must have a

large number of Canadian cheese, because she cannot purchase cheese enough from any other country during the Canadian manufacturing season. The probable shipments of Canadian cheese to the United States, therefore, might not be very large, and as the editor of the New York Produce Review states in a recent issue, "the resulting decrease in American quotations would be slight, so that the American dairymen would not be materially injured."

As a partial proof of this we have the new departure of shipping Canadian cream to the States. During the past year large quantities of this crossed the border, but the price of butter did not rise or fall much on either side of the line. We cannot understand then why Canadian cheese factory owners and patrons should not profit considerably by a realization of the proposed agreement.

THE EFFECT ON BUTTER

In regard to the butter industry the effects should not be much different. Prices should soon become equalized, and most of the influx would be from Canada to the States in the Eastern districts at least, while in the extreme west, where the Canadian prices for butter are usually very high, some American butter would probably cross the line, reducing the cost of living in one product to the Canadian western consumer. Canada, by cutting down the shipments of butter to England, makes way for more Danish butter in England, so that the prices there would be maintained or increased, and it would not be profitable to ship Danish butter to Canada. In fact, it would seem that everything would soon conform to nature's law by advancing to the point of least resistance.

One of the greatest scarcities in dairy products in the United States is cream for home use and for ice cream purposes. The ice cream in-

dustry of the United States has increased almost beyond belief in recent years, and much of our Canadian cream is certainly destined for this outlet, whether tariff reductions are made or not. The increased consumption of milk and cream in the populous American cities naturally decreases the make of butter annually, and the increasing population at the same time demands an increased make of butter. Where these are to come from our Americans are trying to solve by removing the tariff to Canada.

GREATER YIELD OF CHEESE

If Canadian cheese go to the United States duty free, the increased price to us would not be our only gain. We would also reap an equal or greater benefit from the increased yield of cheese we would obtain from milk through making the softer style of cheese desired in American markets. This alone should mean a gain of at least 10 cents on each 100 pounds of milk.

Cheesemakers in Canada, too, would be benefited.

(Concluded on page 9)

ANOTHER DAIRY FARMS PRIZE COMPETITION FOR 1911

Farm and Dairy has Completed Plans for This Year's Contest. It will Include all of Older Ontario and Part of Quebec Full Particulars are Here Given

ANOTHER dairy farms prize competition like the one which created so much interest during 1909 and 1910, will be held this year by Farm and Dairy throughout Ontario, and in the district of Beauharnois, Que., as well. Ontario will be divided into four districts, as it was in 1909, and a fifth district will be added for the district of Beauharnois, Que. Ten handsome prizes will be offered in each district. Next year the prize winning farmers in each district will be allowed to compete in a final or semi-final contest to determine the best farms in all five districts.

From this year's competition the leading prize winners in the last contest will be excluded. These include the five prize winners in the provincial contest last year, namely, Messrs. R. A. Penhale, of St. Thomas; J. W. Richardson, of Caledonia; E. Terrill of Wooler; O. D. Bales, of Lansing; and D. Duncan, of the Don. Mr. Victor Begg, of Moose Creek, the first prize winner in the eastern part of Ontario in 1909, will also be excluded from this year's contest. All these parties, however, with the exception only of Mr. Penhale, the first prize winner in the last provincial contest, will be allowed to take part, if they so desire, in the next final contest to decide the final championship. Mr. Penhale, should he so desire, may be given an opportunity next year or the year after to compete against the first prize farms in the province of Quebec for the interprovincial championship.

THE COMMITTEE OF MANAGEMENT

Arrangements for this year's contest were made at a meeting of the committee of management, that in cooperating with Farm and Dairy in making the contest a success, which was held in the Walker House, Toronto, on Wednesday, March 29. The members of the committee present were: Messrs. H. Glendinning, of Manilla, and G. A. Gillespie, of Peterboro, representing the Eastern Ontario Dairymen's Association; D. A. Dempsey, of Stratford, and S. R. Wallace, of Burgessville, representing the Western Ontario Dairymen's Association; Mr. Simpson Rennie, Ontario's famous gold medal farmer; and H. B. Cowan, of Farm and Dairy. There were also present Mr. O.

D. Bales, of Lansing, and D. Duncan, of the Don, two of the competitors in the last contest. Mr. Glendinning was again elected chairman of the committee, and Mr. Cowan as the secretary.

QUEBEC INCLUDED

The committee unanimously decided to include the district of Beauharnois, Que., in this year's contest. This includes the counties of Beauharnois, Chateaugay and Huntingdon. This section possibly contains more high class dairy farms, than all the rest of the province combined. The advisability of extending the contest over a larger portion of Quebec was considered. It was felt, however, that the entries would probably be very scattered and the expense of judging so great as to be prohibitive. Should the interest this year warrant it, other sections of Quebec may be included in the next contest. The addition of this portion of Quebec, it was felt, would add interest to the contest in Ontario as it would add an interprovincial interest to the final contest.

THE PRIZES

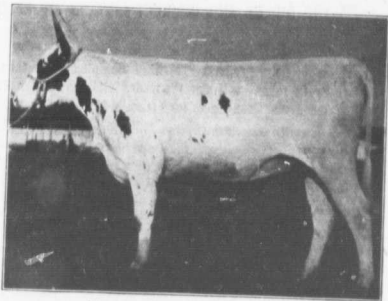
In 1909, 15 prizes were offered in each of the four districts in Ontario. In none of the districts were there over 11 entries. It was decided, therefore, to offer only 10 prizes in each district but to endeavor to give better prizes.

It was further decided that the farms should be judged once during the coming summer by two judges in each district. Where the judges find that the competition for the leading prizes is close between certain farms they will have the privilege of judging these farms again next winter before making their final decision. The appointment of the judges was left in the hands of the chairman and the secretary.

THE RULES

Several hours were spent in considering the rules and scale of points. All the rules governing

the old contest were re-adopted without amendment. All the competitors in last year's contest had been written to and asked to suggest any changes they would like to see made in the scale of points. Only three competitors replied, and the changes they suggested were of a minor character. Messrs. Glendinning and Duncan, who had been competitors, were agreed that the scale of points needed but little change. A few slight changes were made, the total number of



The Daughter of a Champion Sire

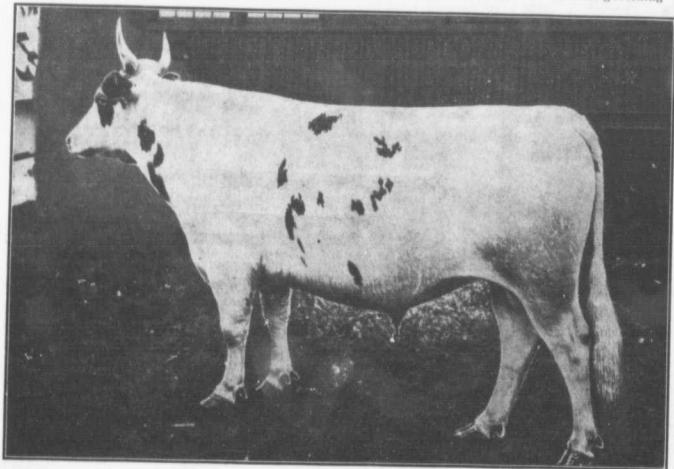
Cherry Bank Milkmaid, here shown, was the female champion of Sherbrooke; also junior champion and reserve grand champion at Dominion exhibition, St. John, N.B., 1910. She is owned by E. D. Milkman, North Georgetown, Que., and is a daughter of Netherhall Milkman.

points offered being increased from 1000 to 1060.

The rules governing this year's contest and the scale of points as amended are as follows:

1. Farms must contain at least 90 acres. The whole farm must be entered. Swamp, stony or poor land cannot be left out but the judges will have power to leave it out if in the use of their discretion they so decide.
2. Farmers with 90 acres of land must have ten cows, 200 acres of land, 15 cows; 300 acres of land, 25 cows; and over 300 acres, 25 cows. The competitors must be sending the milk or cream of that number of cows at least, to a cheese factory or creamery, or to the city, or making it into butter or cheese.
3. Only practical farmers will be allowed to compete. If necessary, competitors will be required to furnish proof that their chief occupation is farming, and that they have been engaged in farming principally, for at least five years previous to the competition.
4. To assist in defraying the expense of the competition there will be an entry fee of \$3.00. When intending competitors are members of either the Eastern or Western Ontario Dairymen's Association, the entry fee will be only \$2.00. Membership in these Associations costs \$1.00.
5. Entries must be sent to H. B. Cowan, Farm and Dairy, Peterboro, Ont., with the entry fees, on or before June 15th, 1911.
6. Successful competitors will be required, when asked to do so by the judges, to furnish essays on any three features of their farm work that may be called for. These, however, will not be counted in the awarding of prizes.
7. The committee of management reserves the right to refuse the entry or entries of farms, the acceptance of which it may deem would be unfair, owing to special conditions, to other competitors. These rules may be extended or amended if the committee deems such action to be in the best interests of the competition.

(Continued on page 8)



Netherhall Milkman—A Champion Ayrshire Bull

This bull, which heads the Ayrshire herd at the Cherry Bank Stock Farm, owned by P. D. McArthur, North Georgetown, Que., was the champion Ayrshire bull at Sherbrooke and at the Dominion exhibition, St. John, N.B., 1910. The two animals on this page afford a fine study in Ayrshire breed type.

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Pure-Bred Sires—Their Importance

C. F. Whitley, *In Charge of Records, Ottawa*
 One chief aim of cow testing is to develop profitable cows in every dairy herd. For generations it has been universally recognized in the dairy world that a low grade or scrub animal, either male or female, can scarcely ever be counted profitable. If then, a dairyman mates his dairy cows with a scrub bull, what can be expected? He may save a few cents in the service fee, but he will lose many dollars in the value of milk produced. He may get a calf to sell for a dollar or two, but he will not get an animal of pronounced dairy type or of any dairy value.



C. F. Whitley

He may increase the number of stock on the farm, but he will pull down all the patient and skilful work of thoughtful men who for years have been seeking to build up in permanent form vigorous, profitable, common sense dairy characteristics.

What excuse is there for the existence or the use of a poor quality scrub bull? Can a dairy farmer reasonably expect any improvement in his herd from such short-sighted policy? He can surely count on quick deterioration in herd quality and performance, and therefore on a steadily diminishing factory cheque for milk.

SOME STARTLING FACTS

What do facts disclose? On a recent round through three counties in a professedly dairy district no fewer than 21 dairy farmers out of 46 informed the writer that there was no good pure bred dairy sire in their neighborhood! This points to the urgent need of co-operative breeding associations as already outlined several times. Members of cow testing associations, any 15 or 20 men who are really desirous of solid improvement, could readily club together and purchase three good sires paying a good price for a bull willing to serve and able to get calves; the herds could be divided into three groups, and the sire kept two years with each group, moving to the next group at the end of the second and fourth years; thus each member is ensured for six years of the use of something worth having.

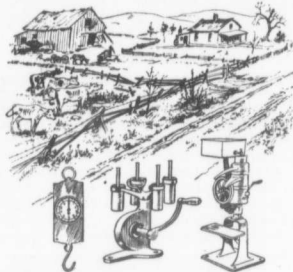
1,000 LBS. INCREASE IN MILK

How will this affect the milk yield? A reasonable expectation from the use of the right sire on fairly good grade cows is an increase of 1,000 pounds of milk from the heifer calves. In the Dairy Commissioner's Report for 1909 the yields of two year old heifers in Quebec and British Columbia were in strong contrast. In Quebec, nine out of 22 heifers gave only between 2,000

and 3,000 lbs. of milk. In British Columbia, only five out of 64 were as low as that, and out of the remaining 59 heifers, 21 yielded between 3,000 and 4,000 lbs; 15 gave between 4,000 and 5,000 lbs; 14 yielded between 5,000 and 6,000 lbs; and nine more gave over 6,000 lbs. each during the first milking period. Could figures possibly point a stronger argument in favor of the dollar and cents value of the use of a pure bred sire?

PROGRESSIVE DAIRYMEN IN ONTARIO

Let us turn to Ontario. Only one or two herds need be mentioned. But a few years ago Mr. S. A. Freeman, of Culloden, was not using a pure bred sire in his herd, and had an average yield



Modern Devices of the Dairy Stand Between

of less than 5,000 lbs. milk per cow. Last year 70 cows gave him an average of 7,500 lbs. milk. Would any scrub have assisted in that? Then note the record of Mr. A. J. Davis, Woodstock. Largely on account of the use of a pure bred sire he is able to make 20 cows average 9,144 lbs. of milk and 338 lbs. of fat. Again, would any scrub bull help any dairy farmer to achieve such an increase as 103 per cent., more than double, in the yield of milk inside six years? Surely these facts, the outcome of common sense and cow testing, should appeal to every dairyman.

But there are other considerations. It would appear certain that many bulls of excellent promise and capacity have been quite needlessly sacri-

ficed, sold only for the price of beef, because their owners did not know their value. If the yield of milk and fat from the dam is not recorded, no proper value can be placed on the youngster. But, if a high record has been made by her, there is extra value, sometimes to the extent of hundreds of dollars, to be secured from the sale of the male offspring.

INCREASED VALUE OF CATTLE

The well bred heifer is easily sold at an advance of \$5, perhaps \$10 or more over prices of common stock. There is never likely to be a surplus or good dairy cattle, but the scrub will only produce stock that no one wants. No district can hope to make progress in dairying that ignores the value of prepotency in a good dairy sire.

Old bulls may be traded and often a good one secured that has produced excellent stock; many can be used satisfactorily till 15 or 16 years old.

If we are aiming at 300 lbs. of butter per cow annually the sire question must be faced at once. It will pay to sell one or two good cows to get the right bull. The point to seek is ability to transmit performing qualities.

The outlay of \$100 on a good sire means a gain of from \$1,000 to \$1,500 in five years, as increased profits above what a "scrub" sire would produce. A cheap bull is generally fearfully expensive; the scrub is liable to decrease the milk producing instinct. Moral, use only a good pure bred sire.

Value and Necessity of a Good Bull

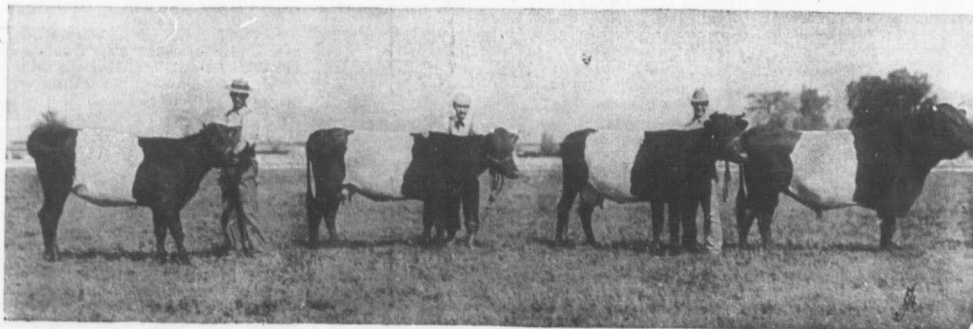
J. H. Grisdale, *Dominion Agriculturist*

First-class dairy herds are not accidents. They are the results of liberal feeding, careful selection and good breeding.

Pure bred females are not a necessity. The majority of farmers will do better with grades. But good grades mean the use of good bulls. Not merely a pure bred bull, but a good one of the breed. The breed does not matter provided always (1) that the breed suits the line of dairying followed (2) that you like the breed and (3) that you stick continuously to the one breed. Better buy your cows, than try to breed by changing from one breed to another in selecting sires.

Only good individuals of good breeding should be used. Such are worth good prices. It has been demonstrated that a really good bull in a 15 cow herd is worth \$500 in two years. You can get a good bull calf from \$50 to \$100. If the \$100 one is of better type and breeding than the \$50 one he is easily worth the extra money. Buy a good bull in 1911 if not already provided with such an animal.

Dairying does more than anything else to eliminate risk in the expected returns from the farm.



Dutch Belted Cattle—Seldom Seen in This Country, But a Favorite Breed in Holland

A BETTER CORN CROP WITHOUT ADDITIONAL LABOUR

W. H. McNish, Leeds Co., Ont.

A Crop of Much Better Quality is Possible. Weight of Stalks is not the Main Consideration. Ears are What Count. How to Get Them in Abundance

IN the course of my observation, which during the past season has been rather extensive, I am prepared to make the sweeping statement that the farmers of Ontario and Quebec, are only playing with the corn crop. "The greatest crop of corn they ever raised," according to the view point of many, when critically examined, shows that if tons per acre is the measure with which the crop has been measured, they probably have what is claimed "The best ever." From a feeder's point of view, however, the crop was not all that it should have been.



W. H. McNish

CORN LACKING IN QUALITY
Most of the corn has been planted in drills from three to three and one half feet apart, and with the plants three to 12 inches apart in the row; the varieties in many cases have not at all been suited to our climate and at harvest time the stalks were as bare of ears as a lamp-post. Corn, as we find it on the majority of our farms, and the net returns it gives are not 50 per cent. of what they might and ought to be. Many of us are lead away by the delusion that if the sap, which goes to make the kernel is contained in the stalk, it is just as good; this principle may work out in the case of grasses, but it will not in corn.

MAKING, NOT SAVING LABOR

The common excuse for planting corn in drills is that it saves labor. As a matter of fact it makes labor. There is no drill that will plant corn as accurately as one would like. We get in too much seed. Then the corn has to be thinned by hand, and would have to be hoed; both of these practices are out of the question in these times of scarcity of labor.

Let us on this point do what our brother merchant and manufacturer is doing. What has he done to attain his success in life of which we are sometimes jealous? Set down and think and figure. The average production of ensilage corn in Ontario for 1910 was only 11.6 tons per acre. We hear of some fields going over 20 tons an acre, and even up to 30 tons. Why not aim at an average all over Ontario of 20 tons, with 25 per cent. of that weight in ears? It can be done. It can be done just as easy as to produce the yields we do and it can be done with the same labor. A few days ago, I was reading the report of the crops grown on the experimental (remember experimental) plots at Macdonald College. They yielded 114.77 bushels of shelled corn per acre, or

8,263.44 lbs. of ears. This is over one third of the total weight of the green ensilage corn produced in the province of Ontario in 1910. It was my good fortune to have an opportunity of examining this corn just as it was ripening and I then concluded that it would weigh more per acre than the average ensilage corn of Ontario and it possessed more than double of its feeding value.

What a valuable lesson we can learn from that! To think that in Quebec, where natural conditions are not so favorable as in Ontario, they are raising corn of a much higher feeding value, and as many tons per acre as the average of Ontario!

THREE IMPORTANT FACTORS

To attain ideal results in raising ensilage corn, many things have to be considered, but out-standing are three essential points, viz., good seed of the proper variety, rich land, and intensive cultivation. Under the head of good seed of the proper variety, I would recommend one to select some variety that will mature in his particular locality. I would advise him to raise his own seed. After that has been done, take a few of the best ears

Prize Farms Contest

As announced on Page 4 of this issue, Farm and Dairy, again this year, will hold a prize farms competition throughout the province of Ontario, (except New Ontario), and in part of the province of Quebec. We ask our readers to help us to make the particulars of this contest as widely known as possible.

See if you cannot bring some of these prizes into your own district either for your own farm or for the farms of some of your neighbors. Nothing venture, nothing win, is very true of contests of this nature.

and plant a seed plot. From this plot select the seed for the main crop. By a careful selection each year of a few of the best ears from which the seed for the main crop is raised, it is astonishing what an improvement will be noted in a few years; and then one has a superior quality of seed that is not to be found on the market.

SELECT ONLY RICH LAND

When any crop is to be planted that involves as much work as corn, the very best site should be selected. A clover, or other sod should always be selected for corn. It should be well manured. If barnyard manure is not available to enrich it sufficiently, supplement it with some of the standard special manures. Under any condition do not fail to manure the land sufficiently to ensure a good crop.

Cultivation of the corn is a point on which many fail. It may be getting late in the planting

season. The seed is put in without the ground being given sufficient preparation; nine times out of 10 it is planted with a grain drill in rows from 28 to 36 inches apart, and half a bushel of seed to the acre is used. This method spurs failure in big letters.

Perhaps the season be late; instead of slighting the preparation, one should make it more thorough. After this has been done, mark the land off into squares, the rows from 42 to 48 inches apart, and as straight as the path of a bullet. And right here let it be known that thorough cultivation can be greatly facilitated by straight marking. When all of this has been done, don't lessen your chances by careless planting.

If your seed is of high vitality as it ought to be, put four or five kernels exactly where the lines cross. The rows of corn will then be straight. With one of the modern two horse cultivators, a steady team, and a careful operator, corn thus planted can be as thoroughly cared for as though done by hand and at a fraction of the cost, and when the corn is removed the field will not have the usual appearance of so many cornfields in Ontario, "rows of stubble grass and weeds," but will be thoroughly clean and in first-class shape to produce a heavy yield of whatever crop may follow.

Pointed Questions Concerning Alfalfa*

Geo. Marsh, Peterboro Co., Ont.

I have been told a dozen times during the past week when asking farmers if they would sow alfalfa, "No, I have no land fit, but I will get the land ready for next year." Did you ever stop to consider what you would lose by not growing this year, alfalfa, the wonderful plant, the mortgage lifter as it is called? You cannot afford to neglect sowing a field of alfalfa this year because you think your land is not just fit.

You are well advised in fitting a piece of land for next year; do it by all means. But in the meantime sow alfalfa on 10 acres of your land just as it is; you will be well pleased with the results. You do not say: "I will sow red clover next year when I get my land fit," but you fit the land as well as you can and then you sow the seed. Land for alfalfa requires no more fitting than is required for red clover. I have yet to hear of a man who sowed alfalfa seed with the right inoculation (bacteria) who failed to get a catch; I know of a number who have lost red clover seedling but have secured good stands of alfalfa in the same year.

CAUSE OF FAILURE

Every case of failure with alfalfa, which I have known, when investigated has brought out the fact that no inoculation was used. In the majority of cases failure was blamed to poor seed, unfavorable seasons, unsuitable soils,—or anything that the farmer could think of except the true cause,—lack of inoculation.

The average farmer will probably sow from 1 1/2 to 20 acres of red clover. When I ask him why he sows the red clover in preference to alfalfa he will say he does not know. Now if alfalfa will do one quarter of the things claimed for it by reputable farmers who are growing it, you cannot afford to continue growing the red clover. It will be the part of wisdom for you to try 10 acres of alfalfa this spring.

While alfalfa will adapt itself to almost all varieties of soil it is better to give it every chance the first time it is grown on a farm. Take 10 acres of a good dry field that you intend sowing to oats or barley, work it up well, but do not worry if there is some grass or weeds left. A little

(Continued on page 8)

*This is the third of a special series of articles prepared especially for Farm and Dairy readers by Mr. Marsh, an alfalfa expert, who has had an extended experience with alfalfa, both in Ontario and in several of the States of the American Union.

Bovine Tuberculosis

M. A. Jull
The control of bovine tuberculosis is a business proposition. It is no problem confronting the farmer. It is a fundamental problem confronting the public. It is the standpoint of the public as well as the product of the question of a whole for the consumption of the beef and mutton of the country, and the progress of transmission of the disease to human agency of milk and meat. As generally known, the same time the transmission has been involved the fact among animals is the problem.

The special significance of the disease bears for its prevalence among animals is so intimately connected with the production of dairy sanitation and thus, as the disease benefits the public, the disease benefits the public of more wholesome food.

REMOVE OR

Aside from the producer's supply of have also to consider loss to the state cattle and swine crop of 54,000,000 animals by the United States there were 900,000 and not used for total loss to the State animals we have a producer and the consumer. It is safe to assume losing her share of economic standpoint should no longer

Tuberculosis is and from cow to man sufficient income measures to prove it from amongst

REMOVE OR

The eradication will also remove the to hogs. In this that all hogs for sale upon inspection are to be tubercular should which they came could be tested for tail the cooperative inspectors and if the reporting all diseased would be of invalid inspectors in facilities a beneficial factor in this feature would testing and eventually upon farms, which hogs, would naturally of tubercular hogs considerable degree hogs depends upon among cattle, since tion to the former

A question which sideration is that in some way in the The application of the pulvory and frequent milking purposes been inspected and



Jersey Cattle on a Prize Winning Farm in the last Dairy Farms Competition

Some of the cattle, and in the background part of the farm, owned by Mr. George Lathwaite, of Huron Co., Ont., one of the successful competitors two years ago in the Dairy Farms Competition, are here shown

Bovine Tuberculosis in British Columbia

M. A. Jull, Live Stock Commissioner

The control of bovine tuberculosis resolves itself into a business proposition and probably there is no problem confronting agriculture to-day of more fundamental importance than that constituted by this disease. It is a business proposition from the standpoint of the consumer as well as the producer. Aside from the question of a wholesome supply of milk for the consumer there is the question of the beef and pork supply. The degree of transmission of bovine tuberculosis to human beings through the agency of milk and meat is not as great as generally believed. At the same time the possibility of transmission has been proven and thus is involved the fact that "tuberculosis among animals is an important public problem."

The special significance that this disease bears for the dairyman is that its prevalence among our dairy cattle is so intimately involved with the general question of dairy sanitation as to restrict consumption and thus, as the control and eradication of this disease benefits the public through a larger supply of more wholesome milk, it becomes a public question.

GREAT ECONOMIC LOSS

Aside from the close relation which the producer's supply of milk bears to the situation we have also to consider from a public standpoint the loss to the state through infected carcasses of cattle and swine condemned for consumption. Out of 54,000,000 animals slaughtered and inspected by the United States Government in one year, there were 900,000 animals that were tubercular and not used for human consumption. Of the total loss to the State of these 900,000 condemned animals we have every reason to believe that the producer and the consumer bore the greater part. It is safe to assume that British Columbia is losing her share in this respect. Then from an economic standpoint the tuberculosis problem should no longer be neglected.

Tuberculosis is transmissible from cow to cow and from cow to hog and this alone should furnish sufficient incentive to us to adopt effective measures to prevent its spread and to eradicate it from amongst our dairy cows.

REMOVE CONTRACTION FROM HOGS

The eradication of the disease from dairy cattle will also remove the greatest source of contraction to hogs. In this connection it has been suggested that all hogs for slaughter should be tagged, and, upon inspection at the abattoir, hogs found to be tubercular should be traced to the farm from which they came and on this farm the cattle could be tested for tuberculosis. This would entail the cooperation of meat and veterinary inspectors and if the system of tagging, tracing, and reporting all diseased hogs should be adopted, it would be of invaluable service to veterinary inspectors in facilitating their work and would be a beneficial factor in combating the disease. Also this feature would have a re-acting value; the testing and eventual slaughter of tubercular cattle upon farms, which have produced tubercular hogs, would naturally tend to reduce the number of tubercular hogs for, as we have seen that to a considerable degree the extent of the disease in hogs depends upon the extent of the disease among cattle, since the greatest source of infection to the former is in the manure of the latter.

A question which should receive special consideration is that the public should be protected in some way in the matter of buying dairy cattle. The application of the tuberculin test is not compulsory and frequently cattle are sold for breeding and milking purposes from herds that have not been inspected and tested and which when sub-

sequently being subjected to the tuberculin test have proven to be tubercular. There may be cases where tuberculin exists and has spread in herds through no fault of the owner and without his knowledge, but it should be the business of every intending purchaser to ascertain whether the herd, from which he intends

in advance of anything that has as yet been adopted in British Columbia but it has been adopted in the State of Wisconsin where "All animals sold for milking or breeding purposes must first be tuberculin tested."

POSSIBLE TO ERADICATE TUBERCULOSIS

Great as the situation may seem and though great may be the difficulties involved in the situation, we believe it is possible to eradicate tuberculosis from our herds. The percentage of reactors has been reduced from eight and a half per cent. in 1909 to five and three-quarter per cent. in 1910, and in 1910 many new districts were inspected by the inspectors, which implies that many herds were tested for the first time. The importance of the disease is more generally being realized and greater effort is being put forth for its eradication.

An important feature in this movement is the co-operation on the part of the dairymen. Many of our largest dairymen are anxious to maintain herds free from the disease and are having their herds officially tested by our Provincial Veterinary Inspectors, of which there are four in number. On the other hand, many dairymen and stock owners do not grasp the significance of the situation and it becomes evident that a campaign of education is necessary. Our Department has undertaken inspection and testing of cattle for some time and among the more important educational features have been the public demonstrations given at exhibitions and short courses throughout the province. We are endeavoring to combat the situation from the producers and from the consumer's standpoint and the government has provided substantial financial assistance.

COMPENSATION ALLOWED

Compensation is allowed on all cattle affected with tuberculosis and which have been slaughtered. Upon request, cattle are tested by the Provincial Veterinary Inspectors, free of charge. The tuberculin and other necessary appliances are supplied by the Department of Agriculture. If any cattle are found to be affected with the disease they are slaughtered under the personal supervision of the Veterinary Inspector and compensation is allowed upon such animals. The value of the cows is at the discretion of the Inspector,—the maximum value being \$125 for pure breeds and \$75 for grades, and on the inspector's valuation 50 per cent. compensation is allowed.

TUBERCULOUS FREE CATTLE AT SHOWS

A very commendable act on the part of the British Columbia Dairymen's Association is in the adoption of a resolution at one of their recent Directors' meetings, regarding the awarding of prizes to dairy cattle at the exhibitions in the province. The resolution of the Association was to this effect: "That this Association recommend to the various Agricultural Fairs Associations in this province, that they restrict their cattle prizes to animals that have a certificate of tuberculin test of less than 12 months' standing, from a Government Veterinary Official. In the event of their not deeming it advisable to comply with this recommendation, it is respectfully requested that every precaution be taken to prevent the infection of tested animals on the exhibition grounds and while en route."

This goes to show how widespread the movement has become. The Legislature, which has just prorogued, has amended the Contagious Diseases (Animals) Act, the gist of the amendment being greater consideration for sanitation in the management of our dairies—sanitation being the keynote to the situation. We are attacking this economic problem from a hygienic standpoint.



Three Tubercular Cattle Recently Slaughtered at a Public Demonstration in B. C.

The adjoining article by M. A. Jull, Live Stock Commissioner for British Columbia tells of the most practical work that is being done in British Columbia in eradicating tuberculosis from the dairy herds in that province. Compensation is offered by the Government for tuberculous stock slaughtered.

—Photo furnished Farm and Dairy by Mr. Jull.
purchasing, has or has not been tested. Certificates of inspection and testing are issued by our Government Inspectors and a satisfactory certificate may be demanded from those who have stock for sale before purchasing. In other words it is in the interests of purchasers to buy from tubercul-



The Heart from one of the Cattle

Note the tubercles. This heart weighed 60 lbs. and covered about one half the area of a double page newspaper.

in-free herds. However, since a portion of the public have little or no knowledge of the disease and are not aware of its existence among dairy cattle, it seems commendable to advocate that action should be taken in regard to animals offered for sale being tuberculin tested. This is a step



The Demonstration—"Seeing is Believing"



SYNOPSIS OF CANADIAN NORTH-WEST LAND REGULATIONS

Any person who is the sole holder of a family, or any male over 18 years old, may homestead a quarter section of available Dominion land in Manitoba, Saskatchewan or Alberta. The applicant must appear in person before the Dominion Lands Agency, or sub-Agency, for the District Entry by proxy may be made at any other place, on certain conditions, by father, son, daughter, brother or sister intending to homestead.

Duties—Six months' residence upon and cultivation of the land in each of three nine mile of his homestead on a farm of at least 80 acres before the date of homestead entry (including the time required to clear homestead pasture and cultivate fifty acres extra.

A homesteader who has exhausted his homestead right and cannot obtain a pre-emption may enter for a purchased homestead in certain districts. Price \$20 per acre. Duties—Must reside six months in each of three years, cultivate fifty acres and erect a house worth \$500.

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

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The best spray that money can buy for Scale, Scab, Milkew and all other Fungus Growth and Parasites.



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CHEMICAL LABORATORIES LIMITED Van Horns Street, TORONTO, 24

Pointed Questions Concerning Alfalfa

(Continued from page 6)

grass will not hurt the alfalfa and will make good hay when mixed with the alfalfa, and weeds have no chance in a good crop of alfalfa.

When you sow alfalfa don't forget to inoculate it. Sow over each acre a couple of bags of soil from an old successful alfalfa field, or get the inoculum from the O.A.C., Guelph, and apply it according to directions given with each package.

It is advisable for the beginner to use a nurse crop of half the usual amount of grain as is ordinarily sown to the acre. Sow 20 pounds of alfalfa seed, seeding it during the regular clover seed attachment of the drill. After seeding give the wide field a stroke of a light harrow to make sure of all seed being covered, and the seed is done.

LAND ADAPTED TO ALFALFA

Some farmers have been thinking for the past 10 years of sowing alfalfa, but have been afraid that alfalfa would not grow alfalfa—best forage as the word means. Alfalfa will respond readily to good treatment, and the richer the land, the more mature used, or fertilizer ap-

plied, the better. One cannot really work in too much manure or apply too much fertilizer to turf alfalfa. A half a ton per acre of a 2-3-10 commercial fertilizer will produce a crop that will make the neighbors sit up and take notice. But such heavy fertilizing is not necessary, since good crops of alfalfa can be grown on high sandy gravelly hills or stiff clay that would not produce paying yields of any other crops.

Nine times out of ten in order to get a good crop of alfalfa all that is necessary is to sow the seed as already directed, and by the time the nurse crop is cut the alfalfa will be up in the butts of the sheaves. Occasionally in very unfavorable seasons when the alfalfa has made a poor growth it will be wise to cut the grain for hay in order to give the alfalfa a better chance, in such cases the stubble should be left as long as possible.

SEEDING ON FALL WHEAT

A field of fall wheat, if on dry land, makes a very suitable seed bed for alfalfa. As soon as the weather is settled and the ground becomes dry—about about sowing time—sow 20 lbs. of inoculated alfalfa seed, or sow the inoculated soil with the seed, on the wheat field, and give it a stroke with a spike tooth harrow with sharp teeth. The harrowing will cover the seed and not hurt the wheat, in fact, it will be a benefit. Many exceptionally good stands of alfalfa have been obtained from sowing on fall wheat in this way.

I am satisfied that 99 per cent. of the land in Ontario will grow alfalfa, and I again counsel every Farm and Dairy reader not to put off sowing it for lack of fitness in the land. Just sow 20 pounds of seed with inoculation and trust in Providence.

The Feeder's

The Feeder's use of our unadulterated and improved alfalfa is a guarantee of attention.

Feeding Co.

A. D. Foster, We milk three at 5 a.m., 1 p.m. feed, immediately following ration. 1 1/2 lbs. of bran feed 2 1/2

ROYAL BRAND FENCE SOLD DIRECT TO THE FARMER The Sarnia Fence Company, Sarnia, Ont.

ROYAL BRAND FENCE made by the SARNIA FENCE CO. is the most talked of fence on the Canadian market today. Why? Because it is the best fence made in the Dominion and we are selling it direct to the farmer just as cheap as we will sell to an agent or dealer. We have but one price and one policy to follow in regard to publishing our prices to the farmer as it represents his own commissions and profits and he resorts to statements regarding quality which are unjustified and absolutely untrue, his object is to get the purchase from him a fence commission.

Agents say our wire is not number 9, every coil of wire we use is inspected by the Canadian Customs and it must gauge No. 9 by the government gauge or they will not admit it to Canada. Another claim of inferior galvanizing—whose specifications call for wire which will stand four one minute dips in acid" asked for bids for 500 miles of fence—every fence manufacturer who bid had to figure on a special quality of galvanizing to meet this test as the wire he furnishes the farmer will not stand a four dip test. We sent a sample of ROYAL BRAND WIRE for same as we chemist who pronounced our regular wire equal in quality to the special wire which the other fence manufacturers had to pay \$5.00 per ton extra to conform with the four dip acid test.

We would be glad to have you take a sample of wire from our fence and one from any other make and test both in acid and prove the superiority of our galvanizing. This is a fight between the Canadian fence combine and all over the Dominion. The demand for ROYAL BRAND FENCE is increasing so rapidly that we have been obliged to the price of fence in Canada who refused to join the fence combine which was formed for the purpose of increasing their advantage of our guarantee we pay more than our printed price for all No. 9 fence. If you do you are being BUY COMBINE FENCE AT COMBINE PRICES. If you have any doubt about our reliability write to the editor of this paper and ask him if we make good our statements or not.

We furnish a combination bolt and stratcher complete with one ratchet made of malleable iron, 3 1/2 feet of chain-patent hard wood clamp for \$4.50 or with two ratchets—also freight prepaid with fence orders only. The following styles of fence we have in stock and can ship to 20 roll off or a car load.

- 6-40-0—has 6 line wires, 40 in high 22 in. apart, all No. 9 hard steel wire. Spacing 7, 8, 9, 9. Price per rod... 21 1/2c
6-48-0—7 Line Wires, 48 in. high, stays 22 in. apart. All No. 9 hard steel wire. Spacing 5, 6, 6, 7, 7 1/2, 8, 8. Price per rod... 24c
8-40-0—8 line wires, 40 in. high, stays 16 1/2 in. apart. All No. 9 hard steel wire, spacing 3, 4, 5, 6, 7, 8. Price per rod... 29c
7-48-0—7 line wires, 48 in. high, stays 22 in. apart, all No. 9 hard steel wire. Spacing 5, 6, 7, 9, 10, 11. Price per rod... 25c
8-48-0—8 line wires, 48 in. high, stays 16 1/2 in. apart, all No. 9 hard steel wire. Spacing 4, 5, 6, 7, 8, 9, 9. Price per rod... 30c
9-48-0—9 line wires, 48 in. high, stays 22 in. apart, all No. 9 steel wire; spacing 3, 4, 5, 6, 6, 8, 8, 9. Price per rod... 30c
9-48—Same as 9-48-0, with stays 16 1/2 in. apart. Price per rod... 32 1/2c
10-40-0—10 line wires, 50 in. high, stays 16 1/2 in. apart, all No. 9 hard steel wire. Spacing 3, 3 1/2, 3 3/4, 4M, 5 1/2, 6, 6, 8, 8. Price per rod... 35c

The above prices include freight prepaid to railroad points west of Toronto, in Old Ontario. East of Toronto, add 1c per rod to the price. To points in New Ontario, Quebec, Maritime and Western Provinces, deduct 2c per rod from the printed price; customer to pay his own freight from Sarnia. All fence put up in 2, 3, 5 and 6-rod rolls. Remit cash with your order, by registered letter, post-office or express order, or

THE SARNIA FENCE Company SARNIA, ONT. NO DISCOUNT TO ANY ONE FOR ANY QUANTITY FROM THESE PRICES.

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GALVES RAISE THEM WITHOUT MILK

STEEL, BRIDGE SEED CO. LTD., TORONTO, ONT. AGENTS WANTED \$5.00 a day easy. No experience needed. Sell on sight. Absolute necessity to farmers. Do not work of 2 men. Pays for itself in one hour. Write to day. MODERN MACHINERY CO., Box 27, Sarnia, Ont.

AUCTION SALE OF FIFTY IMPORTED GLYDESAL FILLIES

AT ORMSBY GRANGE STONEY FARM, ORMSBY TOWN, on the second day of the great spring show, viz. May 15. They are by Baron's Best, the descent of the Jotham's Pride of the Jotham's Sir Geoffrey & Silver. This is a rare opportunity to buy the best at lowest prices. D. McEACHRAN

down first, the best a good pinch of over that. When give what alfalfa up. Afterwards of ensilage.

At noon we give a full feed of bushel between evening the alf



A Good Place in

Whether or not silo as this one has then grow lots of silo in on Mr. Ed. Edward Co., Ont., by an editor of Farm

o'clock, the roof age after milking This feeding was some on different apply mostly to the meal. Be careful Watch your cow takes hold of her not start in unusual, make the lighter.

The Feeders' Corner

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

Feeding Cows for Official Records

A. D. Foster, Bloomfield, Ont.
We milk three times in 24 hours—at 5 a.m., 1 p.m., and 9 p.m.—and feed, immediately after each milking, the following ration: Roots 15 lbs., bran 1½ lbs., chopped oats 1½ lbs., tanner feed 2½ lbs., oil cake 1 lb.,

I would not advise feeding more than three times a day. Water is kept constantly before the cows. We groom them twice a day and bed them well.

While this feeding applies generally, one cannot make any hard and fast rules for cows, and like people their tastes are different and must be consulted. I hope this information may be of use to some who have never tried testing; however, we do not count ourselves experts at all, and no doubt many of the breeders can put up a better ration than this.

Effects of Reciprocity

(Continued from Page 5).
fited because the American buyers are not nearly so severe in their demand

the average farmer there is no great amount of profit in producing milk at 85 cents a hundred pounds, which is about the average when export cheese are made. The cost of production may be reduced but a better marketing procedure must be secured. Our nearest and largest market for fresh goods is the natural market for the greatest profits. As the writer sees the future industry of Canada, therefore, it is approximately as follows: After supplying the growing needs of our home markets, the province of Ontario will continue to manufacture a high grade of cheese, which will sell for more money, some going to English markets, but an increasing amount going annually to the States. The province of Quebec will gradually drop cheese manufacturing for the more suitable and more profitable practice of shipping milk and cream to the States for city consumption and the ice cream industry. The richer milk in Quebec province and its geographical location compel this.

tion of milk for all purposes—milk, cream, cheese and butter. For a time they may import a small amount of American butter, but they must soon produce all they require. The increased settlement of the country will demand it.

After all, the great race and struggle of the universe is after the cold, hard cash. Many favored individuals and classes have already reaped their share of it, but the day is near at hand when the progressive dairymen will get their chance and the careless dairymen will be obliged to get out of the business or get into line because the inducements of this great industry will soon be so pronounced that many more ambitious persons will be attracted to it, and the men who cannot keep up with the procession must step aside and make room for those who know how and intend to make good.

The originators of the proposed reciprocity agreement, certainly deserve the thanks of Canadian dairymen for the benefits they would derive from its adoption.

World's record for Butter Fat from a cow fed with

Molassine Meal

(Made in England)

"Merry of the Glen" 1836-O, Advanced Register No. 836, bred and owned by H.A.C. Taylor, Newport, Rhode Island, U.S.A. Produced in 12 months 4076 lbs. of Butter Fat, equal to 1,109 lbs. of Butter.

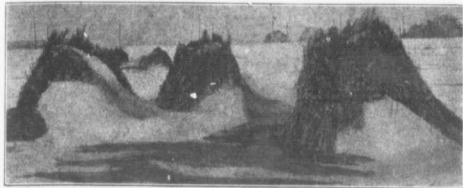
This constitutes a world's record for any cow in connection with an advanced Register.

MOLASSINE MEAL

was fed regularly throughout the whole of the twelve months. Imported by

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How Much Better if This Corn were in a Silo!

corn meal 1 lb. The roots are put down first, the grain put on top with a good pinch of salt sprinkled nicely over that. When that is eaten, we give what alfalfa hay they will clean up. Afterwards they get a scoopful of ensilage.

At noon we omit the alfalfa and give a full feed of ensilage, about one bushel between two cows. In the evening the alfalfa is fed at six

for quality, and reclaims from very slightly defective cheese would soon disappear as they have on the American side.

It would indeed seem that we are on the verge of a great change in the marketing end of the dairy industry. Necessity demands such a change. To



A Good Place in which to put Corn.
Whether or not you build as good a silo as this one have a silo by all means, then grow lots of corn to fill it. This silo is on Mr. Ed. Purcell's farm in Prince Edward Co., Ont., and was photographed by an editor of Farm and Dairy.

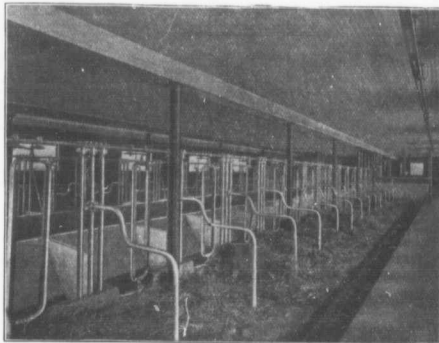
o'clock, the roots, grain and ensilage after milking.

This feeding will have to be varied some on different cows; this will apply mostly to the oil cake and corn meal. Be careful not to over feed. Watch your cow and see how she takes hold of her feed—if she does not start in quite as ravenous as usual, make the feeding a little lighter.

YOU CAN REMODEL YOUR STABLE YOURSELF

If You Use BT Stalls and Stanchions

Write for our new catalogue. It shows the latest development in sanitary barn equipment—**Stalls and Stanchions**. It shows how greater comfort and cleanliness is secured for the cows, resulting in increased production and better profits. And the beauty of it is that these stalls may be put in by yourself—no carpenters or helpers to hire. BT Stalls come all ready for use, and in a few minutes they can be set up. We give full information as to the width, length and size of stalls, best shape for manger and gutter, and we tell how to lay the cement floor so that anyone can do it.



Remember BT Barn Equipment will mean greater profit for you, as it will cut down your expenses and will increase the production of each cow. There are FIVE EXCLUSIVE FEATURES on BT STALLS that we want to tell you about.

If you are building or remodeling your stable, fill out this coupon and we will send you free our booklet on stable construction.

We also build Hay Carriers, Forks, Slings and the BT Litter Carrier.

It is a pleasure to work in a stable like this. When you read our booklet you will see how this equipment lessens abortion and does away with the principal cause of big knees, ruined udders, and many other injuries which cows are liable to. You will see how the individual mangers prevent over-feeding and under-feeding. You will also learn how the exclusive features on BT Stalls mean dollars and cents to you by giving greater comfort and protection to your cows.

BEATTY BROS.
FERGUS, ONTARIO

Beatty Bros.

1000 Fergus, Canada:

Kindly send me (free) your Booklet on Stable Construction and BT Stalls.

How many cows have you?.....

Are you going to remodel or build?

If so, when?.....

Mention if you will need a hay track or litter carrier.

Name.....

Post Office.....

Province.....



STRAWBERRY PLANTS
40 Leading Varieties sold at Reasonable Prices. Catalog and Price List Free. 10 Plants sent post paid to any address in Canada for \$1.00.

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STRATHROY - ONTARIO

CORN THAT WILL GROW

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

J. O. DUKE, - RUTHVEN, ONTARIO

Books on Alfalfa

The Book of Alfalfa
by Coburn, Price \$2.00
Alfalfa in America

by Jos. E. Wing, Price \$2.50

Worth their weight in Gold. Hand-soundly bound, large books. You ought to have one or both of them.

BOOK DEPT.

FARM & DAIRY
PETERBORO, - - ONTARIO

The Nitrogen Your Crops Take Up Counts; Not the Nitrogen in Your Fertilizer

The most available source of nitrogen is

Nitrate of Soda

Your crops cannot make use of nitrogen in any form except the nitrate.

Give it to them that way. If you don't you'll have to wait for a change in form to take place before the plants can feed on it. All the nitrogen in Nitrate of Soda is available. Not one atom is lost.

These factors make Nitrate of Soda the cheapest form of nitrogen. You get all the benefit of what you buy. Cheapest—quickest—cleanest. Let us give you prices.

CHEMICAL LABORATORIES, Ltd.
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PHOTOGRAPHED IN AUGUST—BLOCK ONE-YEAR PEACH TREES

Herbert Raspberry

This is the heaviest cropper of all Red Raspberries: 200 bushels to the acre is its record. Write for prices.

BROWN BROTHERS CO., NURSERYMEN, LIMITED
BROWN'S NURSERIES
WELLAND CO., - ONTARIO

OUR TREES HAVE A RECORD FOR PRODUCING BIG CROPS

YOU ARE INVITED TO VISIT OUR NURSERIES

WRITE FOR CATALOGUE OR AGENCY

HORTICULTURE

Fruit—Dairying—Profits

In any new country farming is carried on in an extensive rather than an intensive manner. What we might call the finer branches of agriculture—horticulture, dairying, and poultry raising—are neglected. In older countries we find that these branches of agriculture take first place over grain growing or general stock raising. In Ontario there is a tendency to engage more and more in the finer branches of agriculture as land becomes more valuable. These branches require larger outlays of labor and capital, and also more ability on the part of the farmer.

If on a map of the world a circle with a radius representing 2,000 miles with Toronto for the centre were described, the area of land within that circle well adapted to fruit growing would be found to be very limited. Land splendidly adapted to the more extensive branches of farming would be found in abundance. A large portion of the land adapted to fruit is in Ontario. It is only natu-

ral to suppose, therefore, that the future of fruit growing in Ontario with such wide markets developing on every side is bright indeed.

The ideal system of Ontario farming, however, is not fruit growing only, but a combination of fruit growing with other branches of intensive farming as dairying and poultry. Most of the fruit of the future, particularly the tree fruits, will be produced in orchards run in connection with dairy farms. The dairy farmer with several acres of orchard in con-



A Substantial Home-made Spray Tower

Before you start in to spray this spring provide yourself with one of these towers. Mr. Hamilton, of Collingwood, built this tower last year, and he had never seen anything to the right of the photo, W. F. Kidd to the left, and Mr. Rogers on top of the tower. Photo taken by an editor of Farm and Dairy on W. J. Owens' farm.

In connection with his farm is in a position to make larger profits than did he carry on dairying only or fruit growing only. The greatest profits from both go in a proper combination of the two.

I am pleased to see the new departure in your paper, the photos of prominent men, who are trying to do well, and champion the farmers' rights, and a sketch of their work, even if I do not agree with all their opinions and sayings.—James E. Orr, Middlesex Co., Ont.

APICULTURE

Bees Compared with other Stock

Morley Pettit, Provincial Apiculturist, Guelph, Ont.

There is nothing on the farm which requires so little care in proportion to the returns as the bees. This is why they are so often kept at a loss; because the care they need is so small that it is utterly neglected. They require only a little attention, but what they do require they must have. It is to call attention to this bit of work, and to help fit it into its proper place among the other farm duties, that our cooperative experiments are undertaken.

THE MASTER OF SITUATION. One first principle in handling any live stock is to be master of the situation. One cannot get full value from a horse until it is completely under control. It is the same with bees. To be a successful bee-keeper one must be a bee-master; not in any cruel sense more than with a horse. To manage a horse one must know a horse from A to Z. To manage bees, one must study their habits and disposition, and learn as far as possible why and how they do things. This takes time, but it is well spent.

SYSTEM IN THE APIARY. To control swarming, one must inspect the bees often so as to know their condition all the time. This requires system. Here again a comparison may be drawn. Other live stock require attention two or three times a day, seven days in the week, 365 days in the year and 366 days in leap year. It is different with bees. We don't have to feed them or groom them or milk them or gather their eggs; we don't have to clean their stables or fumigate their coops, or give them a ball or drench; but we do have to give them some attention regularly, and as certain hours are set aside for the feeding and milking so a certain day should be set aside for the apiary work.

I have used an year with good results. It is much better than where—Mrs. John L. Co., Ont.

Have you forgotten to renew your subscription to Farm and Dairy?

CHERRY TREES

Plant a row of sour cherry trees around your farm, 6 feet clear of fences. Then cultivate both sides of the trees. Each tree will produce \$5 to \$8 worth of fruit per year. We have three grades of cherry trees.

Plums and Pear Trees

The demand for these two fruits is very heavy of late. The Northwest development is absorbing hundreds of carloads of fruit annually. Plant more Plum and Pear trees.

PEACH TREES

We still have unsold a few thousand Peach Trees of leading sorts.

BUY A FARM

If you do not own one, buy one, and plant it to fruit. 50% dividends are not unusual in fruit growing. If you own a farm, plant fruit trees: More money in growing fruit than grain or raising stock.

POULTRY

Poultry Along

N. G. Campbell, Poultry, not unwith other things. They turn to goods products that are waste, and are sold for a small amount. The dairy cow does profit the hens receive beyond anything else stock that of the farm.

The hens and makers when they a half a chance.

A fair success, with no care and which, of course, dairy cows. And there is no milk case of feeding eggs. Hence the hen need not interfere after the poultry.

The poultry can be the most satisfactory if it is left to itself. We dairymen who ed up to properly care should have fine advantages.

In dairying, is a bit of which depends on to details—livestock management with poultry, the lead.

It can hardly be old dairymen who ing for the hens, not so much to recognize the poultry should have in that one of the girls, or the after the poultry fitting its important possibilities.

I have used an year with good results. It is much better than where—Mrs. John L. Co., Ont.

Have you forgotten to renew your subscription to Farm and Dairy?

FOR SALE AND

TWO CENTS A WORD

PURE BRED FOWLS
In return for new Farm and Dairy subscribers will bring bred standard fowl Manager, Farm Ont

WYANDOTTES FOR
White Wyandotte \$1.00 each. Eggs \$1.50. Harry T. L. Peterboro, Ont.

WHITE WYANDOTTES
For heavy egg production. Eggs \$1.00 guaranteed.—Thos.

BARRED PLYMOUTH
hatching. Price 75¢ stock.—Thos. E. Jordan

SILVER GREY DUCKS
Good laying ducks. 500 eggs of this grade. J. H. Stoenes, Ont.

POTATOES—Empire
3 years selection; oats from hand-selected. Emmer, the new variety. A. Hutchinson, Mont.

MONEY MAKERS—
Red Chief strain, Red land Reds. Send for fully illustrated list. Bros. Rockwood, Ont.

EGGS FROM IMPROVED
Brown Leghorns; price \$1.00 per 15. Ont.

POULTRY YARD

Poultry Along with the Dairy

N. C. Campbell, Brant Co., Ont.
Poultry, not unlike hogs, fit in well with other things on a dairy farm. They turn to good account many by-products that otherwise would go to waste, and when given care and fed on a scale commensurate with what the dairy cow demands—presto! the profits the hens return are away and beyond anything possible from other live stock that one may keep upon the farm.

The hens and poultry are profit makers when they are given at least a half a chance. Indeed, they give a fair account of themselves even with no care and attention whatever, which, of course, cannot be said of dairy cows. And with the poultry there is no feeding! It is only a case of milking and gathering the eggs. Hence the vexatious labor problem need not interfere with us looking after the poultry.

The poultry cannot, however, give the most satisfactory account of itself when it is left to shift for itself. We dairymen who have been educated up to properly care for the dairy cow should have reached that stage where we can look after poultry to fine advantage. Poultry raising, like dairying, is a business, the success of which depends largely upon attention to details—but profits stand on investment with poultry stand out far in the lead.

It can hardly be expected that we old dairymen will take up the caring for the hens ourselves, but it is not too much to ask or expect that we recognize the important place that poultry should have, and then see to it that one of the boys, or it may be the girls, or the women folk, look after the poultry in a manner befitting its importance and profit making possibilities.

I have used an incubator for six years with good success, and think it much better than hens for hatching.—Mrs. John Roseborough, Brant Co., Ont.

FOR SALE AND WANT ADVERTISING

TWO CENTS A WORD CASH WITH ORDER

PURE BRED FOWLS GIVEN AWAY FREE in return for new yearly subscriptions to Farm and Dairy. A club of four new subscribers will bring you a pair of pure bred standard fowls. Write Circulation Manager, Farm and Dairy, Peterboro, Ont.

WYANDOTTES FOR SALE—Golden Silver: White Wyandotte Cockerels \$2.00, \$5.50, \$1.50. Eggs Golden \$2.50. White, \$1.50. Harry C. Lamb, 122 Dublin St., Peterboro, Ont.

WHITE WYANDOTTES exclusively bred for heavy egg production and standard stock. Eggs \$1.00 per 15. Good hatch guaranteed.—Thos. F. Pirie Banner, Ont.

BARRED PLYMOUTH ROCK EGGS for hatching. Price 75c per setting. Prize stock.—Thos. E. Jory, Lakeside, Ont.

SILVER GREY DORLING EGGS from laying strain, \$1.00 for 15. 30 pullets of this strain bred laid over 50 eggs from Dec. 15th to Jan. 11th, 1911. Jas. Stonehouse, Fort Perry, Ont.

POTATOES—Empire State, registered seed; 3 years selection; \$1.50 bag. Siberian oat from hand-selected grain; 60c bushel. Emmer, the new feed grain; 75c bushel. A. Hutchinson, Mount Forest, Ont.

MONEY MAKERS—Heavy winter layers, Red Chief strain, Rose Comb Rhode Island Red. Send post card for beautifully illustrated free catalogue. Guild Egg Bookstore, Ont.

EGGS FROM IMPORTED Single Comb Brown Leghorns; good winter layers; price \$1.00 per 15. W. C. Shearer, Bright Oak.

Sour Milk Good for Poultry

Many by-products of the dairy can be turned to fine account by the poultry. Skim milk, butter milk, the undigested corn in cow manure, clover leaves, each and all will be turned into cash by the hens when they are allowed the opportunity.

The milk is perhaps the most important consideration. When it is fed to chickens it should always first be allowed to sour. Great danger lurks in sweet milk as a poultry food. It affords one of the very best of media for the propagation of disease, and because of this milk should never be fed to poultry while sweet. Always allow it to sour.

Sour milk, or butter milk, in experiments conducted at the Guelph College by Professor Graham, have given when fed to breeding stock very favorable results in increasing the fertility and the hatchability of the eggs. Then, too, the sour milk seems to have a most beneficial effect upon the general health of the flock. It is thought that the germs or bacteria present in the sour milk counteract the bacteria in the food and in the digestive tracts of the hens when it is marked advantage of the birds that are fed the sour milk.

Alfalfa Good for Chickens

Alfalfa is of decided value as a feed for poultry. Chickens eat alfalfa leaves, green or dry, with relish. That alfalfa has a favorable effect on egg production is testified by Mr. J. H. Sanderson, a farmer of



CHICKENS STARTING FOR THE ALFALFA
Alfalfa is great feed for poultry. Show some where they can get it. Photo taken at the O.A.C. Guelph. Alfalfa in the background.

Peterboro county, who states that the results of mixing finely cut alfalfa in the regular mash he feeds his hens is to be seen in the increased size of the egg basket required in which to gather the eggs when his hens are fed alfalfa.

While in the office of Farm and Dairy recently Mr. C. E. Moore, of Smith Township, told our editors of having sown some alfalfa last year in his yard. The chickens did not discover it until the alfalfa had made a growth of some few inches; then they started for it and kept it eaten off close to the ground until when winter came on last fall not a leaf of green was left, all having been eaten by the chickens.

Additional testimony as to the value of alfalfa for chicken feed was given Farm and Dairy by Mr. Ed. Jory, of Pine Grove. He states that while hauling in his grain, his horses standing at the mow while the loads were being removed, had eaten into the mow a considerable depth for the alfalfa. Each time as the load came in this hole in the side of the mow was occupied by the chickens, they having found it and discovered that alfalfa leaves were good eating.

Alfalfa leaves, short cut alfalfa, or

even long alfalfa hay, may be fed to poultry with profit. In fact, it or other clover should be before them at all times in a rack, which may be made conveniently from a piece of wire poultry netting tacked on to the scantling and allowed to bag out somewhat so as to make a rack, from which the hens may pick the clover at will.

Does Poultry Pay?

E. F. Eaton, Colchester Co., N.S.

If we really knew the profits which our poultry yield on the little money and labor invested in them, we would have more respect for the poultry department as a source of revenue on the farm. It is so easy to keep track of the feed consumed by the hens and the money received from sales of eggs, poultry, etc., that there is no excuse for us not knowing whether or not our poultry pays.

In our own case we simply tack up a card on the wall of the hen house and mark down each bag of feed that is brought there to be used. In another column we credit all eggs and poultry products sold. We then know whether or not our poultry is when more of us come to appreciate the profit there is in hens, Canada will cease to be an egg importing country.

Hillcrest Poultry Farm STANDARD WHITE LEGHORNS

I made \$3.39 per bird by selling eggs wholesale in 1910. 130 eggs at \$15, ought to hatch you 75 chicks. From these you raise 35 pullets to the laying age. With average care and average experience these birds will net \$2.50 each. This will give you in one year a net profit of \$72.50, and you still have the birds, which are worth more than \$1 each.

My Breeding Hens for the season of 1911 are part of a flock of 402 pullets which in January, February and March made a new record for a flock this size by laying 35,832 eggs.

The Cockerels heading the Breeding Pens are from trap-nested hens with individual records in their pullet years of 200 eggs and over.

Eggs for Hatching—March and April, \$15; May, \$12.50; June, \$10 per 100.

S. G. HANSON

HILLCREST POULTRY FARM
Box 147, Duncan, B. C.

Black Langshan Eggs

From Imported Crows
\$5.00 a dozen
GLENSLOAH FARM
Office 402 Yonge Street
TORONTO, ONTARIO

SHOWING THE PAINT.

Are you going to take any old paint this spring when you old paint up? Don't you do it! You can get good paint easily, and can get it at the proper price. You can get

RAMSAYS PAINTS

the oldest brand of Mixed Paints in Canada, guaranteed for purity, known for quality and unchallenged in all house painting today. Drop us a card and ask for our Booklet or B D the handsomest Booklet on house painting ever issued. It is free. You should have it.

A. RAMSAY & SON CO.,
THE PAINT MAKERS, Montreal.
Est'd 1842.

Hamilton Incubator Hatches Every Fertile Egg

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

Our free Booklet

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

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

Eggs for Hatching

Mammoth Bronze Turkeys, \$2.40 per 6, \$3.50 per 9; Embden Geese, \$2.75 per 6; Russian Ducks, \$1.00 per 7, \$2.00 per 15; Rose Comb Brown Leghorns, \$1.50 per 15; Single Comb Black Minorcas, \$2.00 per 15; Silver Grey Dorkings, \$2 per 15

J. H. RUTHERFORD,
Box 62. - CALEDON EAST, ONTARIO

Alabama Needs 50,000 Farmers

Dairymen and stock raisers to supply her local markets with butter, poultry, vege- tables, hogs and cattle. The best lands in the world can be had at \$5.00 to \$50.00 per acre. Let us help you to get a farm in Alabama, where the climate is delightful, where you can raise several crops each year on the same land, and where a ready market for same. We are supported by the State and sell no lands. Write for information and literature.

State Board of Immigration
Montgomery, Alabama

160 ACRES OF LAND FOR THE SETTLER

Large areas of rich agricultural lands, convenient to railways, are now available for settlement in Northern Ontario.

The soil is rich and productive and covered with valuable timber.

For full information regarding homestead regulations, and special colonization rates to settlers, write

The Director of Colonization
Department of Agriculture,
TORONTO

Now Is The Time To Start Building Your Telephone Line

The conditions are all in your favor now for the construction of your telephone line. The sooner the work is completed the earlier you will be enjoying the benefits of an efficient telephone service.

At our factory here in Toronto we always carry a large stock of construction supplies. You can secure the best goods from a Canadian Company and save time as well as duty.

Everything we make is fully guaranteed. Our telephones are guaranteed for ten years against defective material or workmanship.

The success of this company has been almost phenomenal, our business doubling in volume last year. This is going to be another record-breaking year.

Canadian Independent Telephone COMPANY LIMITED

24 Duncan St., - TORONTO

SWINE DEPARTMENT

Our readers are invited to ask questions in regard to swine. These will be answered in this department. You are also invited to offer helpful suggestions or relate experiences through these columns.

Timely Notes on Swine

Twenty cents a cwt. for skim milk is not too high a value to place upon it when fed to hogs. A feeder who cannot realize this return has considerable yet to learn about hog feeding. If fed in large quantities 20 cents a cwt. will not be realized, but when fed in limited rations along with barley, chop or corn meal, or meal rations having a large percentage of either of these two grains, skim milk may be made to yield a return approximating nearly 30 cents a cwt. when fed to hogs.

Why is ordinarily considered to be worth from five to 10 cents a cwt. when fed to hogs. Its value depends much upon its condition and also in the quantity in which it is fed. In limited quantities it may be worth 20 cents a cwt. when fed along with heavy grains. When fed in excessive quantities it may not be worth five cents a cwt.

The judicious disposal of the by-products of the dairy often make the

difference between profit and loss in dairying, and the same may be said of pork production. Take care to feed wisely. They account to a considerable extent for the success of the Irishman and the Dane as pork raisers.

Small paddocks or runs of clover, rape, or alfalfa, or each of these in the growing swine and the breeding sows greatly reduce the cost of pork production. The farmers who claim swine raising pays are generally those men who provide such runs for their pigs. When the fattening stage has been reached, or when the pigs have been grown, it does not pay to let them run at large. The other pigs, however, soon eat their heads off if kept closely confined and fed on the expensive heavy meal rations. We can grow our pigs, but of course feed them liberally as well, while on small areas of first class pasture such as can be provided by one of the clovers or rape.

The best results will be secured from having at least two, better still three, paddocks, one seeded to red clover, another to alfalfa, and the third to rape. If a fourth plot can be provided it can be worked in to advantage with red clover, and may be seeded with ryegrass in the fall, this plot to furnish late fall and early spring pasture. This plot will alternate well with the red clover and the rape, the three being worked and seeded in rotation.

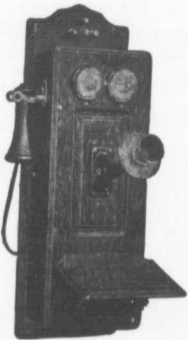
They also tell us they like our methods of doing business and appreciate the suggestions and co-operation given by our staff of Expert Engineers.

If you intend to establish a telephone service in your locality we believe you will find it profitable to get into communication with us at once.

We will place our Expert Engineers at your disposal, and do all in our power to facilitate rapid and thorough construction.

When writing be sure and ask for our latest publication called "Canada and the Telephone"—the most artistic and interesting telephone book yet published.

our materials and apparatus, and are adopting them as their standard equipment.



CITY MILK SUPPLY DEPARTMENT

Transportation—Effect on the Dairy Industry in B.C.

Farm and Dairy B. C. Correspondent

If more of our lawmakers were farmers and had been obliged to submit to the transportation facilities of credit by railway companies, we would, to-day, have better railway laws. The poor facilities for shipping cream and milk to the city markets or to a creamery, have driven many a good dairyman out of business.

There are two factors, which do much to reform railways, viz., competition and the Railway Commissioners. These agencies seem to bring about changes which our governments are powerless to effect.

Four years ago dairymen in the Fraser River Valley were seriously affected by poor shipping facilities but thanks to the above mentioned agencies they are greatly improved.

At that time milk and cream along the C.P.R. for a distance of 75 miles were gathered by the through trains from Montreal, which during the winter months were liable to be from one to 24 hours late at some of the shipping points along the way there were no agents or even telephone communication, but one of the regulations of this supposed public convenience was that the shipper had to be at the shipping point to put his cans of milk or cream on the train, and to be on hand the next day to take his empties off, if he were lucky enough to get them back. Was ever a demand more ridiculous?

It is true that the farmer might be obliged to wait at the station for a half a day or more before the magnates in Montreal care about the British Columbia dairymen?

It came to pass, however, that the Railway Commission paid a visit to British Columbia, and this state of affairs was brought to their attention by the Provincial Dairy Commissioners.

The result was that the railway company was advised to install a local train service, if they had any desire to carry out the intention of their charter and give the farmers along the line a chance to exist.

It might be of interest to other localities similarly situated to know that within four weeks a local train was installed, which has been in operation ever since. So much for the Railway Commission.

COMPETITION AND RIVER TRANSPORTATION

The farmers on the opposite side of the Fraser River have been obliged to depend entirely upon the river steamers for transportation of their products, and these steamers have been both slow and unsatisfactory. But, thanks to competition, this has been changed. The electric cars now run for 70 miles through the best farming districts in the province, and every morning a milk car comes into the city, gathering milk and cream along the way.

What this will do for the farmers would be difficult to estimate, but it has revived the dairymen industry in many places along the route and has given an impetus to all branches of farming, which will have a far reaching effect.

Improved transportation and better roads will change farming from an unprofitable to a profitable and enviable occupation. The agricultural press can do much to bring this about, so don't be afraid to shout.

I think a lot of Farm and Dairy. It is the most interesting and instructive farm paper I know of. John Patterson, Muskoka District, Ont.

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SEALED TENDER
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MAIL CONTRACT

SEALED TENDERS addressed to the Postmaster General, will be received at Ottawa until Noon on FRIDAY, THE 5TH DAY, 1911, for the conveyance of His Majesty's Mails on Two Proposed Contracts for Four Years, SIX Times per week each, between

PETERBORO and FOWLER'S CORNERS, PETERBORO and the TOWNSHIP OF NORTH MONAGHAN, both over certain specified roads, dating from the Postmaster General's Pleasure. Printed notices, containing further information as to conditions of proposed contracts, may be seen and blank forms of Tender may be obtained at the Post Office of FOWLER'S CORNERS and PETERBORO and at the Office of the Post Office Inspector at KINGSTON.

G. C. ANDERSON, Superintendent.
Post Office Department, Mail Service Branch, Ottawa, 17th March, 1911.

Interesting Breed Comparisons

W. Carleton Dundas Co., Ont.
Editor, Farm and Dairy.—I have noticed in some of your recent editions of Farm and Dairy reports of some very high priced Holstein cattle at auction sales. I would like to ask the question, "Why do Holstein cattle sell so much better and at a higher price than any other breed of cattle?" Is it because they are more profitable than any other dairy breed? Or is it because there is a craze on that breed at the present time?

I think if farmers would get down to business and keep records of what a cow consumes and what milk she gives and what that milk tests they would not be running after the breed so much. They would pay more attention to the cows. I have never had much experience in feeding cows for records. I once asked a very prominent Holstein breeder if a Holstein cow would make 100 pounds of milk at a less cost than any other breed. His answer was that it was the man behind the cow.

OLD COUNTRY COMPARISONS
Talking with a gentleman some time ago who had just returned from a visit to Holland and the Highlands of Scotland, I asked him the question, "What would a herd of Ayrshire cattle do in Holland?" He said he thought in two generations they would make a better dairy cow than the Holstein. I said to him just reverse the question, "How would Holsteins do in the Highlands?" He thought in two generations they would have made a better cow to live on the pasture lands in that country.

Now, Mr. Editor, I would like to have some one tell me if an Ayrshire cow will live and give a small profit under unfavorable conditions, why they will not be just as profitable as the Holsteins under favorable conditions.

HOLSTEIN AND AYRSHIRE IN R. O. P.

I know of two farmers living side by side, one a breeder of Holsteins, the other of Ayrshires. They each had a cow, last June, which they had entered in the Record of Performance. The Holstein cow gave in one day 90 lbs. of milk and averaged 75 lbs. for the month, testing 3.2 per cent. butter fat, or 2,250 lbs. of milk for the month. The Ayrshire just gave 1,250 lbs. of milk for the month, testing 3.4 per cent. We shall just see which of these cows was the most profitable. The Holstein cow gave 1,000 lbs. more than the Ayrshire, but when we are feeding for profit and not for records we will see where we lose. The Ayrshire cow gave 1,250 lbs. of milk on grass alone. The Holstein gave 2,250 lbs. of milk, testing 3.2 per cent., on just as good pasture and 15 lbs. of bran and ground oats equal parts per day, worth \$1.25 per hundred lbs., or about \$6.50 of

meal for the month, along with the extra work of milking three times a day, which I would consider to be worth 10 cents a day.

I would say if those two cows were both sold at an auction sale, the Holstein would bring \$400 and the Ayrshire would probably bring \$75. And why?

Benefit by Millions of Dollars

Editor, Farm and Dairy.—When I was in Ottawa in December on the Farmers' Deputation I met the president of the Huntingdon Cheese Board. He told me that they had started in making cheese last spring, but the shipping of cream to the United States was paying much better, and on the 6th of June he started to ship cream from three factories that he owned. From June 6th to September 30 he paid \$1 per 100 lbs. of milk, the skim milk being returned to his patrons. During October he paid \$1.12, November \$1.22, December \$1.40, and returned the skim milk to the patrons.

In answer to your correspondent from Perth who raised the question about the figures recently published as having come from me, I may here explain: Had I been able to get the prices that this man from Huntingdon paid his patrons when shipping cream it would have amounted to over \$3 a day more than I made when my milk was manufactured into cheese.

I believe if we get the duty off cheese it will raise the price of cheese accordingly as it has the price of milk by shipping cream to the United States. There is no doubt, but that the opening of the United States markets to our dairy products will benefit the Canadian farmers by millions of dollars.—Jas. R. Anderson, Prince Edward Co., Ont.

Members of the Toronto Milk Producers' Association will ask \$1.25 an eight gallon can for milk delivered in Toronto for the six months following April 30. This decision was reached at their meeting on Saturday, April 1st. The price last spring and summer was \$1.15 for the first three months, and \$1.25 for the next 13 weeks, or an average of \$1.20 a can.



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Cows give more milk if sprayed with Cronoid to keep away the flies which make them restless. The poultry output will be increased if the hen house is made obnoxious to insect pests by disinfection with Cronoid.

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There is less friction on the Flat-Tooth Cylinder, because the teeth are wide and graded. On that account only one-third as many teeth are required, which reduces the friction when the manure is passing through the cylinder.

The square or round teeth on ordinary cylinders are not wide enough apart and the manure backs up, chokes cylinder, causing heavy draft.

The manure cannot back up against the flat teeth, and because the flat teeth are graded they will handle and thoroughly pulverize all kinds of manure from the clear gum to the strawy material.

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There would be twenty times as many manure spreaders in use in Canada today if farmers realized the economy of spreading manure with the Genuine Kemp. The Genuine Kemp will pay for itself faster than any other farm machine.

But send to us for catalog D. That's your first step. We are sole selling agents. 62

FROST & WOOD CO., LTD. SMITH'S FALLS, CANADA

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 Ontario Dairy Producers' Association, and Western Ontario, and Bedford District, Quebec, Dairy Producers' Association, and of the Canadian Holstein, Ayrshire and Jersey Cattle Breeders' Associations.

2. SUBSCRIPTION PRICES—\$2 a year, strictly in advance. Great Britain, \$3 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 25c for exchange fee required at the banks.

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

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

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

CIRCULATION STATEMENT

The paid subscriptions to Farm and Dairy exceed 5400. The actual circulation of each issue, including copies of the paper sent subscribers who are but slightly in arrears, and sample copies, varies from 6300 to 10,000. The subscriptions do not contain any advertising matter.

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

OUR PROTECTIVE POLICY

We want the readers of Farm and Dairy to feel that they can deal with our advertisers with our assurance of our advertisers' reliability. We try to admit to our columns only the most reliable advertisers. Should any subscriber have cause to be dissatisfied with the treatment he receives from any of our advertisers, he should write us at once. If we find that any of our advertisers is in any way untrue, even to the slightest degree, we will discontinue immediately the publication of their advertisements. Should any circumstances warrant, we will expose them through the columns of the paper, and will not only protect our readers, but our reputable advertisers as well. In order to be entitled to the benefits of our Protective Policy, you need only to include in all letters to advertisers the words, "I saw your advertisement in Farm and Dairy." Complaints must be made to Farm and Dairy within one week from the date of any unsatisfactory transaction, with proofs 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 trivial differences between readers and responsible advertisers.

FARM AND DAIRY

PETERBORO, ONT.

DAIRY OUTLOOK FOR 1911

An atmosphere hopeful in its character pervades this, the opening of the dairy season for 1911. The rank and file of milk producers, who must dispose of their milk at the cheese factory and get their pay according to the price of cheese, feel that at least rock bottom was touched last year with its prevailing 85 cent milk.

The prospects for this year are cited as being fair to medium in brightness. The condensers, however, and the larger dairy concerns in cities, are paying somewhat less than they did during 1910; but they have paid prices considerably in advance of those received from cheese factories.

Eyes of all dairymen are turned towards a favorable outcome of the reciprocity agreement with the United States with its bright prospects of better prices for all lines of dairy

produce. Largely on this account we enter on the dairy season this year with a cheerful outlook.

DAIRY FARMS COMPETITION

Do not hesitate to enter your farm in the dairy farm competition, announced on page four, because it may not be in as good a shape as you know to be possible. In the second year of the last contest, concluded in 1910, the first prize farm for the whole province made a score of less than 80 per cent. perfect. There is not a farm anywhere but has some weak points. Your farm in all probability stands a better chance to win a worthy place than you may think.

The educational advantages that will be yours and the great stimulus you will receive to improve your farm will bring splendid returns and will add value to your farm. There are many ways in which this competition will prove of value to each competitor. Enter your farm and reap the benefit.

Don't be misled by any seeming disadvantage in not having large buildings, or because of poor fences. These are not the deciding factors. The man who is a good manager, grows the most suitable crops, is improving his stock, and through his farm management is demonstrating that he is making the best of his opportunities and of his farm—he is the man who will win out on the total score.

THE BASIS OF HERD IMPROVEMENT

The foundation of progress in dairy herd improvement rests with the dairy sire. Cow testing is but one means to an end. By means of it we may know the best cows from which to rear cows for the coming years. Through cow testing we are enabled to record any advancement made and thus gain encouragement towards greater improvement.

Back of all cow testing work, however, let it be understood that the good pure bred sire is at the very basis of improvement. Increases in milk production of from 1,000 to 2,000 lbs. of milk in one year with the first cross are commonly reported. We know such increases to be facts. In the light of these facts how can we afford to do without the use of a good pure bred dairy bull, and who will dare to say how much we might pay for such a bull without feeling that we had paid too much?

WILL GROW ALFALFA THIS YEAR

Alfalfa has at last caught on with our farmers in Ontario. From all quarters we hear of farmers who are planning to sow a respectable acreage to alfalfa this spring, and seed merchants tell us that the sale of alfalfa seed this year has reached prodigious proportions.

Everything stands in favor of alfalfa growing. Not a man who has given it a reasonable trial and has grown it in the light of present day information can be found who is not in favor of alfalfa. Any of our readers who as yet are doubtful about this crop cannot too soon for their own benefit swing into line and join

the ranks of the progressive ones who have grown alfalfa and who this year are sowing more land to this yielding, protein-rich crop.

Every Ontario farmer who can, will grow alfalfa some day. Why put it off? Why not grow it this year and have a good big plot of it so as to reap the abundant harvest from alfalfa, which according to abundant testimony can scarcely fail to be grown?

NOT AS BLACK AS PAINTED

"The cause of the high price of 'living in the cities, and the unsatisfactory prices paid the farmer, is due to the enormous profits of the middleman.'"—R. B. Faith, Ottawa, before the Lansdowne Farmers' Club.

"In an investigation conducted in 78 cities in the United States, it was found that the consumers 'in a certain length of time had paid \$200,000,000 for farm produce, of which the farmer got only \$100,000,000. In other words, it costs the producer over 60 per cent. to market produce through 'middlemen.'"—Peter White, Pembroke, before the Lansdowne Farmers' Club.

The foregoing statements are typical of many similar statements that are frequently being made, with the platforms of the country. For years it has been the popular policy to abuse the middlemen, and to claim that they were getting rich out of the farmers. It is true that a few of them have. It is also true that there are possibly more failures among these firms, owing to the keen competition that exists among them, than occur in almost any other line of business. While we farmers could save many thousands of dollars were we to cooperate more in the handling of our farm products, we would not save nearly so much as public speakers frequently give us reason to believe.

The fact is, and most of us are only beginning to find it out, that Lack man, forces are working that have both of us practically at their mercy. The railway companies, for instance, charge exorbitant rates for carrying our produce to the distributing centres in the cities. The C.P.R., as an example, is paying profits on millions of dollars of watered stock.

In the cities, the land trust has pushed up the value of real estate, until in such centres as Winnipeg, Toronto and Montreal, land in business centres has been sold in some instances for from two to three million dollars an acre. A produce firm in one of these cities has to pay rentals on these values. Thus, a firm occupying an acre of land in the business part of the city valued at only \$200,000 an acre must pay a rental of about \$12,000 a year. In addition it must pay higher salaries to all of its employees, because of the high rentals they must pay through living in a city.

Thus, their expenses are so enormous their margin or profit is not so large as indications might lead one

to believe. The produce firms are as much at the mercy of the people responsible for these conditions as are the farmers. They are forced to bid the amount they have to pay in excessive transportation charges and rentals to the prices they must charge for the articles they sell. The full difference in price, therefore, between what the farmer receives and the middleman obtains, is not retained by the middleman. The fact is we can never get this question settled until we pay more attention to the combines that are squeezing both the producers and the middleman. Were land taxed according to its value the excessively valuable land in our cities would pay such a large proportion of the taxes as to go a long way towards righting these conditions.

RECIPROCITY—DAIRYING

The price of our dairy produce is determined not by what is consumed on the home market, but by what we export. The price we obtain for the 20 per cent. of cheese exported determines the price of the 100 per cent. we produce. In butter a still smaller percentage determines the price our producers receive. Hitherto our dairy exports have practically all gone to Great Britain. The opening of the United States markets will give us two markets instead of one. Hence it is we view with favor the effect reciprocity will have on the prices we receive for butter and cheese.

The effect the United States market will have on the price of our butter is not altogether a matter of supposition. Last year four-fifths of the milk produced in Huntingdon county, Que., was skimmed and the cream sent to the States. From May to October Huntingdon farmers netted 95 cents a hundred for milk at the skimming stations and got the skim milk back. In December the farmers were getting \$1.30 a hundred, with the skim milk back. The price at these cheese factories in the same district averaged 93 cents for the season. Under reciprocity butter can be shipped across the line instead of cream, and many more dairymen will be enabled to take advantage of the higher prices ruling in the United States.

Last year the price of cheese in Canada averaged 10½¢. In the United States the price for finest cheese varied from 14¢ to 15¢. In addition to the difference in price the cheese maker in the United States can make 10 lbs. of cheese from 100 lbs. of milk, while the Canadian cheese maker, entering to the British market, must make but nine lbs. This alone would mean an addition of 10 cents a hundred to the value of milk.

We can hardly expect a market in the United States for all of our cheese and butter at the prices quoted. A large part of our dairy produce must under any circumstances still be shipped to Great Britain should the proposed reciprocity agreement be ratified. Having two markets instead of one, however, would tend to advance prices to a higher level all round; therefore, reciprocity cannot but be a most decided advantage to the Canadian dairymen.

Corn and a dependable crop more progress near future than

Defensible Farm Crops

late has alfalfa in a general although occasionally and for the past only the past in Eastern Ontario might be termed are many farms along without her even try corn. In the knowledge gained can it be the more generally, to that star, to alfalfa alone, is being made, year more and to see the true lot with these able crops, the day hasted no further need grow these crops clearly established to be without.

If all the crops were sent to be an advantage

Home Dairying vs. Creameries

gathered within of the creamery, wide stretch of cost of manufacture could almost be every butter seller to nine cents a pound. The farmer makes up his mind could send the creamery is a position. In either, however, there on the farms a butter. This surely is a like calculation of home butter creamery. Education a factory creamery man

Good seed cost \$1.50 a bush with the 65 cent

About Seed

Corn grown in Ontario are a worry crop as a finely sown grown from the arily sold. Of farmer and his periences last trate this point bought seed of bushel, sowing acre. Farmer seed corn for a bushel. He farmer No. 1,

Corn and alfalfa are the two dependable crops now grown; in the more progressive dairymen; in the near future these crops are destined

to be the mainstay and "fortunate buildiers" of **Dependable Farm Crops** the rank and file of mixed farmers. Only of late has alfalfa been given recognition in a general way in this country, and although corn has been grown successfully and ensiled on many farms for the past 20 years, it is within only the past five years that the silo in Eastern Ontario has become what might be termed general. Still there are many farmers attempting to get along without the silo. A large number even try to get along without corn. In the light of present day knowledge gained of experience, how can it be that our people do not more generally hitch their wagons to that star, the corn crop, and now to alfalfa along with corn? Progress is being made, however, and year by year more and more of us are coming to see the truth and to cast in our lot with these two great and dependable crops, corn and alfalfa. May the day hasten when there shall be no further need of urging people to grow these crops, which now it is so clearly established they cannot afford to be without.

If all the cream in any one district were sent to the creamery it would be an advantage to both producer and creamery man. The **Home Dairying vs. Creameries** cost of hauling the cream is a serious item.

Could enough cream be gathered within a reasonable distance of the creamery without going over a wide stretch of country for it, the cost of manufacture in many cases could almost be cut in two. Creamery butter sells at a premium of six to nine cents over good home dairy butter. The patron, therefore, who makes up his butter at home when he could send the cream to a good creamery is carrying on a losing proposition. In every creamery district, however, there is much butter made on the farms along the cream routes. This surely is due to lack of business-like calculation on the relative merits of home butter making versus the creamery. Education along this line would be a fruitful field for the creamery man to work on.

Good seed corn in the ear at \$1.25 or \$1.50 a bushel is cheap compared with the 65 cent variety obtainable so readily in bulk. One

About Seed Corn bushel of the former guaranteed-to-grow corn will yield a satisfactory crop at a less cost per seed and infinitely surpassing what can be grown from the bulk seed as ordinarily sold. One Peterboro county farmer and his neighbor in their experiences last year with corn illustrate this point to a nicety. No. 1 bought seed on-the-ear at \$1.50 a bushel, sowing a bushel to four acres. Farmer No. 2 bought bulk seed corn for which he paid 85 cents a bushel. He borrowed the drill from farmer No. 1, set it to sow twice the

quantity farmer No. 1 had used and then when sowing it turned two spouts into one; he had a crop much inferior in stand and a yield approximately one half in quantity and quality secured by farmer No. 1. His seed cost him 85 cents an acre as against less than 40 cents per acre for his neighbor's "high priced" seed. Moral: Have done for ever with bulk seed corn. Purchase your seed corn from a reliable source and get it on-the-ear.

Altogether too little attention is bestowed on the average calf, which in two years is to develop into the dairy cow. Much of the 85 cent milk that went to the cheese factories last year might have been \$2 milk had more of it been fed to the dairy calves. Of all things we cannot afford to stint the calves. There is no need to have them fat. But they must be thrifty, kept rapidly growing—never stunted—if they are to become profitable producing cows.

FARMERS' RIGHTS

We farmers have another real champion of our rights in the person of Lt.-Col. John Z. Fraser, of Burford, Ont.

Col. Fraser has been identified with agriculture all of his life and for 30 years has been one of the most active politicians in the interests of the Conservative party, in its councils on the platform and in the field. All of his energy and ability is turned to account in the present fight for farmers' rights and in the forward movement of organized agriculture.

Lt.-Col. Fraser is one of the oldest, in point of service, and best known cavalry officers in Canada to-day. His services have always been at the disposal of the Empire at any time of peril and he gives Farm and Dairy assurance that he will ever continue so to be. He has recruited men in times of great danger to the Mother country and has served the Empire in many campaigns and lands and he states that he fails to remember any of the men, who of late have been shouting loyalty so loudly at the waving of the flag so frantically, coming forward in those times with their proffered services; therefore Colonel Fraser thinks we may safely set down as hypocrites most of these men who lately have been and even yet are engaged in loyalty and annexation talk—"the true test of loyalty comes not from the lips, rather does it show itself in deeds."

On its introduction at the second session of the Old Central Ontario Farmers' Institute at Toronto, Lt.-Col. Fraser was one of three men who opposed and voted against commercial union with the United States. He believed at that time, as he does in connection with the present pact, that certain restrictions on trade, or must exist which may be changed or obliterated from time to time, in the interests of our people.

Colonel Fraser gives it as his belief that the manufacturers and others who are opposing the movement for freer trade are passing through a period of intoxication and are not in a position to discuss the present movement.



When the Bluebirds start a warbling
And the Mocking Birds to mock;
When the summers here with roses
And the sun's is the farmer's clock;
When the frost is on the pumpkin
And the fiddler's in the shock;
When snowballs come a-whizzing
And the paths the snow drifts block.

De Laval Cream Separators

Skim Just The Same

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THE DE LAVAL SEPARATOR CO.

175-177 Williams St.

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OLDER PEOPLE TOO

Like a good pen when they go to write—A FOUNTAIN PEN—the kind you simply cannot get at the Bookstore for less than \$1.00 or \$1.50.



We have made arrangements whereby every boy and every girl, yes, and every man or woman, too, may have one of these Fountain Pens without cost to them.

We urge you to show this issue of Farm and Dairy to your friends, to your neighbors, and show them or tell them of the Great Big Dollar's Worth that Farm and Dairy gives in one year for only \$1.00, they would subscribe. Try them! Get one new subscription to Farm and Dairy at \$1.00 a year; send it to Farm and Dairy, Peterboro, Ont.; and we will by return mail send you—ABSOLUTELY WITHOUT COST TO YOU—A SPLENDID FOUNTAIN PEN, like the one in the picture—one that you will be proud to own.

Start out to-day to get one new subscription to Farm and Dairy. Tell your friends of the Eight Big Magazine Numbers, of the Several Illustrated Supplements, and of the many valuable and interesting things that Farm and Dairy gives to each subscriber for only \$1.00 a year. They will surely subscribe! They can't afford not to take Farm and Dairy.

Tell your friends that less than three bushels of Oats will more than pay for Farm and Dairy for one year. The information in this issue alone is worth more than that amount to them.

After you get one new subscriber, get another. We have many valuable premiums for you to repay you for the little trouble you will experience in getting new subscribers to

FARM AND DAIRY

PETERBORO, 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.

Facts About Keeping Cream

Geo. H. Barr, Chief, Dairy Division, Ottawa

Sweet cream should not have more than .2 per cent. acid.

The ordinary farm cellar is not cool enough to keep cream sweet for 36 hours, or for delivery every other day.

Cream kept in open crocks or pails in the cellar is almost sure to have a cellar flavor.

If the cream must be kept in the cellar, put it in a shotgun can and

keep it covered. It will likely get sour, but the flavor will be fairly clean.

Do not use the old style of creamer with a tap and glass on the side. They are difficult to keep clean. Get a can about eight inches in diameter and 20 inches deep, with the seams well soldered.

SWEET CREAM TWICE A WEEK

To deliver cream only twice a week in sweet condition, it must be kept down to 47 or 48 degrees. In our experiments, cream kept 84 hours at 47 degrees had only .165 per cent. of acid.

If cream is to be delivered every other day, it will keep sweet at a temperature of 55 degrees.

We must have cool, sweet cream to get the finest butter and realize the best prices.

Skim a cream not less than 27 per cent. All things being equal, a 30 per cent. cream will keep sweeter

than a 22 per cent. cream, and there is the serious loss of extra skim milk sent off the farm when skimming a thin cream.

EASY WAY TO KEEP CREAM SWEET

It is practically impossible to keep cream sweet in the ordinary cellar. It is the easiest thing in the world to keep it sweet if kept in a clean in an insulated tank.

If you want to keep cream easily and well, it will pay to get an insulated tank. Have it insulated on all sides with four inches of mill shavings and lined with galvanized iron. Very little ice will then be required.

NORMAL SEPARATOR LOSS	WASHED BUTTER DAILY	MILK TOO DIRTY SEPARATED 99 F.	SEPARATOR UNBALANCED OR REVOLUTIONS TOO LOW	SEPARATOR REVOLVED TOO HIGH
VALUED IN ONE YEAR \$21.45	VALUED IN ONE YEAR \$45.81	VALUED IN ONE YEAR \$58.69	VALUED IN ONE YEAR \$58.14	VALUED IN ONE YEAR \$102.71

Amount of Butter Fat Left in Skim Milk

Much of the cream gathered creamery butter has the reputation of having an old cream flavor. This can be entirely overcome by the patrons keeping their cream cool and sweet.

"Sauce for the Goose"

T. J. Newman, Victoria Co., Ont.

In testing cream we take a sample, which should weigh 18 grams. Testing cream is based on weight the same as selling grain is based on weight. We know that oats should weigh 34 lbs. to the measured bushel. We also know that some samples of oats will weigh 36 or 38 pounds to the bushel and some will not weigh 30. It is just the same with cream.

Some 18 c.c. samples of sweet cream of a low test will weigh 18 grams. Other samples of rich cream or sour cream or cream with air bubbles in it will take 19½ c.c. to weigh 18 grams.

When there were not scales with which to weigh grain it was necessary to sell by the measured bushel in order to do business. That time is past. With the improved cream scales we now have it is much better to use the scales in testing cream also.

Refrigeration of Butter

J. A. Ruddick, Dairy Commissioner

As far as I have been able to learn from recorded experiments and observations, slightly better results have always been obtained at the lowest temperature, even as low as 10 degrees F. This applies to six months and storage extending to six months and over. In view of this fact, one can hardly say what is the best temperature, having regard only to the best possible preservation. There is so little gain, however, when the temperature is reduced below 10 degrees F. that the point of diminishing return may be fixed between zero and 10 degrees above for long storage.

When butter is to be stored for short periods under four or five

weeks, I do not consider it necessary to go below 20 degrees F. A lower temperature means unnecessary expense, because the butter should be well preserved at 20 degrees F. The freezing point of butter is rather of the liquids in it, depends upon the percentage of salt therein. Freezing will occur in full salted butter somewhere between 15 and 20 degrees. We have no very definite information as to whether the quality of butter is injured by freezing or not, and if any, the injury is not serious.

Losses From the Separator

With the best of separators and the best of care there will be a certain amount of loss of fat in the skim milk.

This loss is estimated by the dairy department of the university of California at \$24.45 a year from a herd of 40 cows. Losses much larger than this will result from improper care of the separator.

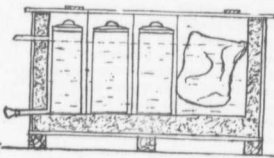
As illustrated in the diagram reproduced herewith, the loss where the separator is washed but once a day will amount to \$48.91 from the milk from 40 cows in one year. When milk is too cold when separated it is unbalanced, \$83.14; and when the separator is turned 20 revolutions too

The last three of these losses are due entirely to carelessness and could be remedied without loss of time or expense. The first loss through washing the separator but once a day can be overcome with very little extra labor and the work would be well paid for in the fat saved and in the extra life of the machine.

If your separator losing you money through any one of these causes? If it is, correct it!

To Make an Insulated Tank

The experiments on the care of



A Home Made Insulated Cream Tank

A cream cooling tank on every farm from which cream is shipped would greatly improve the quality of our creamery butter. This tank, as illustrated is easily made and is described in the adjoining article.

cream carried on by the Dominion Dairy and Cold Storage Branch last season under the supervision of Mr. Geo. H. Barr, the results of which have been reported in Farm and Dairy, show the necessity for better methods of caring for cream on the farm were recommended by Mr. Barr. The insulated tank, a diagram of which is shown herewith, is in use on a large dairy farm in Ontario, and has given excellent satisfaction.

A piano box sawn off provides the outer box. A galvanized tank small enough to leave four inches on all sides to be packed with sawdust and deep enough so that the ordinary 20 inch shotgun cream cans could be used was secured by the neighboring town. Pieces of gas pipe provide a run out at the bottom and a sewer flow 18 inches up. The partitions between the cream cans and the ice



The Safest Fence to Buy

Safe because it will stand shocks and ill usage.
Safe because it is a complete barrier against all kinds of stock.
Safe because its tough, springy steel wire will give real service.

PEERLESS The Fence that Saves Expense

is built of No. 9 galvanized wire of guaranteed quality. To this best of wire add the Peerless method of construction and Peerless lock and you have a fence without a rival.

We've built Peerless fence twice as good and twice as strong as is necessary under ordinary circumstances so that neither accidents nor extraordinary wear can affect it. It saves you money because it is long lived and never requires repairs. We know there is no fence made that will give you more lasting satisfaction. Write for particulars.

We also make poultry and ornamental fencing and gates—all of it of a quality that our customers appreciate and we are proud of.

Agents wanted in all unoccupied territory.

THE BANWELL HOXIE WIRE FENCE COMPANY, Limited,
Dept. H, Winnipeg, Man. Hamilton, Ont.

CREAMERY MEN

The Dominion Government will pay you \$100.00 bonus on condition you equip your Creamery with a satisfactory refrigerator.

The following letter fully explains what they are doing for those who use the EUREKA REFRIGERATOR.

Imperial Creamery, Jarvis, Ont., Dec. 16th, 1910
Messrs. The Eureka Refrigerator Co., Toronto, Ont.
Dear Sirs: Regarding the large refrigerator you placed in my Creamery last June, I would like to say it has given entire satisfaction. All through June, July, and August, the thermometer registered from 27 degrees to 64 degrees, which temperature is very satisfactory for a Creamery, and it is always dry and sweet, with no sign of mould whatever.

It was so satisfactory in every respect that the Government has already paid me the bonus of \$100.00. I think myself quite fortunate in having secured a "Eureka" in preference to any other make.

Yours truly,

WM. PARKINSON,
Write for catalogue and information.

Eureka Refrigerator Co. Ltd. Toronto

chamber at the end of the barrel. The top of the barrel is made of galvanized lumber and the tank the size of a dairy can. The same principle is making for a dairy can.

Where Little is Done

Frank Horns, Ch...

While accompanying Farming Special in northern Ontario, the writer was asked by a producer who had been said to be a dang... may be true in some of the still room for... to be absorbed by producers without... becoming gorous.



The Modern...

The modern cream vat with rollers run other makers. So swift revolution. One who manufactures to overlook the higher

A case in point that he had been a buyer in a certain was based "test." On inquiry when a lead pencil the cream, it depends on the cream of the pencil was for 18 per cent. of We had heard of "over run" but dilution of the pe to us. The pro getting the best our doubts. This was the point producers who that they have to chase a Babcock operate it correct on the test of this

A QUESTION

Questions were those who visited "over run" and creamery prices were figured. If the "over run" water and salt, fat, made it possible 116 lbs. of butter milk fat.

Some patrons average prices of butter by two or three cents per January 1st to... On investigating... ments it was 1

chamber at the end are made of fence wire. The top of the box, while not insulated, is made of tongued and grooved lumber fitting neatly. A tank the size of the one illustrated is for use in a dairy of 30 or 40 cows, but the same principle could be applied in making a tank convenient for a dairy of any size.

Where Little Knowledge is Dangerous

Frank Hens, Chief Dairy Instructor for Western Ontario

While accompanying the "Better Farming Special" on its tour in Western Ontario, the writer was asked many questions relating to dairying. It has been said that "a little knowledge is a dangerous thing." This may be true in some cases, but judged from some of these questions there is still room for more "knowledge" to be absorbed by some of our milk producers without that extra information becoming particularly dangerous.

prices mentioned were the monthly average prices added together and divided by 12. This method does not give the correct average price, but only the average of the monthly prices. When the total butter made was divided into the total money received by the patrons it was found that the net average price per lb. of butter for the year was about the same as that paid by neighboring creameries. The patrons evidently had not understood the difference between the monthly average price and the correct average price for the year.

Dairy Work in Sask. 1911

W. A. Wilson, Supt. of Dairying for Saskatchewan

Our policy of centralization will be one of our chief considerations during 1911 of our work relating to dairying in Saskatchewan. To enlist the sympathy of the farmers and create a receptive mind for advanced dairy education, we have concluded the end

The MASSEY-HARRIS CREAM SEPARATOR



Saves more of the cream at all temperatures than any other

Because

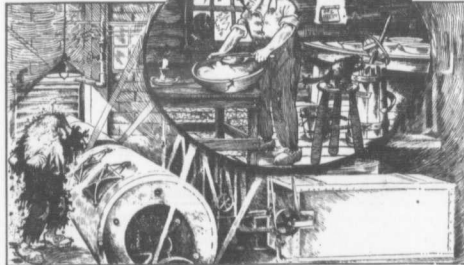
It has a larger skimming area, over which the milk is uniformly distributed, and because there are no conflicting currents of milk and cream in the Bowl.

The Self-Balancing Bowl SPINS LIKE A TOP

on a Ball Bearing at the upper end of the Spindle and at the centre of gravity of the Bowl. It runs easily and smoothly, skims clean and is easy to wash.

Full description and some valuable hints on dairying are contained in a beautifully illustrated booklet "PROFITABLE DAIRYING."

Get one from the **MASSEY-HARRIS AGENT.**



The Evolution of Butter Making—or is it a Revolution

The modern, well equipped creamery with its gathered separator cream, its cream vats with temperature and flavor under control and the churn and makers run other than by hand power would be a revelation to old time butter makers. So swift has been the evolution of butter-making that it is almost a revolution. One would almost wonder why so many still cling to the old method and manufacture their butter at home. They cannot value their time and they overlook the higher price of creamery butter, which offsets the cost of making.

Cartoon from the Creamery Journal. can be accomplished more readily by paying them a handsome price for their product. An extensive business at a central point overcomes many of the difficult problems encountered at the numerous small creameries. To assist in carrying out this work an amendment to the Dairy Act was passed at the last session of the House.

A case in point: One man stated that he had been selling cream to a buyer in a certain town and the payment was based on a "lead pencil test." On inquiry, it was found that when a lead pencil was inserted in the cream, it depended on how rapidly the cream dropped from the end of the pencil whether the buyer paid for 18 per cent. or 22 per cent. cream. We had heard before of a "lead pencil test," but this particular manipulation of the pencil was a new way to us. The producer may have been getting the best of it, but we have our doubts. This is an extreme case, but the point is, would it not pay producers who may be so situated that they have to ship cream, to purchase a Babcock tester, learn to operate it correctly, and keep a check on the test of the cream shipped?

A QUESTION OF OVER RUN

Questions were asked by some of those who visited the train about the "over run" and how the average creamery prices for butter and fat were figured. It was explained that the "over run" consisted chiefly of water and salt, which, added to the fat, made it possible to make about 116 lbs. of butter from 100 lbs. of milk fat.

Some patrons reported rather high average prices received per lb. of butter by two creameries for the year January 1st to December 31st, 1910. On investigating the annual statements it was found that the high

We also propose to give every attention to the care of cream on the farm. A second instructor has been engaged whose chief duties will be to visit the patrons and endeavor to have them follow the recommendations outlined in Bulletin No. 15 from our Department. We contemplate presenting to our patrons, another year, for their consideration, a system of grading cream and butter. This season we will endeavor to collect information and conduct experiments on problems that may be brought up as objections.

Finally, we intend to make a special feature of the cow testing work among the farmers. The Department is supplying a limited number of equipments to each creamery at a nominal charge of \$2.00 each.

These will be placed at cost with the best patrons under an agreement to test their cows according to instructions for a period of three years. We think the results will convince them that the labor is well spent and the work worth continuing.

Renew your subscription now.

THIS IS THE MONEY-MAKING Harrow for Farmers

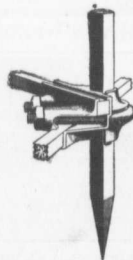


It cuts smooth, levels and covers the grain better than any other.

Perhaps slightly higher than some others in first cost, but in the end much cheaper, because the teeth can be taken out and sharpened so much oftener than any other. They are left extra long for this purpose.

The Teeth are held to the Frame by a malleable Clip and Staple with nut on each end, thus the teeth can always be kept tight and at the right distance down to properly harrow the ground.

A Harrow may seem a simple thing, but we have put **Hamilton Quality** into ours, and it will pay you to have one.



See our Agent, or write To-day for Catalogue F.

The Peter Hamilton Company Limited
Peterborough, Ontario

Choose a Separator That Has Stood The Test of Time

When choosing a cream separator select a make that has passed the experimental stage—one that has stood the test of time. You may pay a little more for a separator like the Empire, but you'll be in pocket in the end. You'll save on repair bills, and you'll not have to buy another machine so soon.



The EMPIRE Line of Cream Separators

contains the size and type of machine you want—and the MAKE that has had its worthiness proved by the test of time. The Empire reputation for quality and reliability is well known to an up-to-date dairymen like yourself. But have you seen the latest EMPIRE Book? It's surely an interesting book. You would like to have a copy we are sure. So ask on a postal and we will mail the book promptly.

THE EMPIRE CREAM SEPARATOR CO. OF CANADA, LIMITED

SUSSEX, N.B. MONTREAL
TORONTO WINNIPEG

DON'T RUN A COWS BOARDING HOUSE

But keep them at a profit,

An Ideal Green Feed SILO

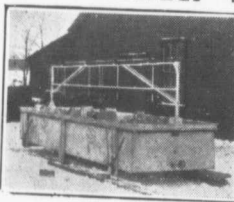
makes the difference. It will double your income and halve your expense. Will pay you one Hundred per cent interest on the investment every year of its use. Built from lumped wood preserved.

Manufactured in all sizes, and shipped complete.

The oldest company in Canada building Silos.

Canadian Dairy Supply Co., Limited
Montreal, Canada

BUY A "PERFECT" STEEL CHEESE VAT



We make the best wooden cheese vats in Canada, but we advise you vats our PERFECT Steel Cheese Vat, because no matter how good a wooden vat may be made it can never equal the PERFECT Steel Vat.

The PERFECT drains out to last drop. No cracks or corners for sweet and clean without trouble. The tin lining is 20 gauge—heaviest ever used. The outside frame is absolutely rust-proof.

SEND FOR OUR CATALOG

Our catalog fully explains the many features of our PERFECT Steel Cheese Vat and also describes the advantages of our STEEL WHEY TANKS, which will last for twenty-five years and are the most sanitary on the market. Now is the time to get busy, write us to-day.

The Steel Trough Co., Ltd., Tweed, Ontario

Agents Wanted. Liberal Proposition to Right Men.

Cheese Department

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

The Dairy Outlook for 1911

J. A. Ruddick, Dairy Commissioner,
Ottawa

There are several conditions, all of which will have some influence in making the season of 1911 a satisfactory one, or the reverse, to the producers of milk in Canada. Both the weather and the market are important factors, the state of which cannot be foretold, and therefore, the effect that these may have in the coming season lies hidden in the future. One thing we do know, however, is that the cows are in better condition this spring, owing to a plentiful supply of feed, than they have been for several years past. This means that the production will be heavier than usual during the early part of the season.

There is one feature of the market that may not be without influence on the season's operations and it can now be definitely stated. I refer to the New Zealand competition. A great deal has been made of the rapid increase in the shipments of cheese from New Zealand during the past few years. It will be of some interest to Canadian producers to know that the shipments during the season of 1910-11, which is now practically over, have not shown any increase over the previous year and this fact coupled with the further fact that old cheese in Canada is well cleaned up should give considerable strength to the early market at any rate.

There is another phase of the market outlook related to a popular topic of discussion, but which, for obvious reasons, I am not in a position to discuss at the present time.

EXTENSION OF COW TESTING
There would seem to be ample evidence that the average production of milk per cow is increasing throughout Canada and we hope to have that tendency continued and encouraged through the extension of the cow testing movement. The growth of the interest in this work is shown by the largely increased number of enquiries and applications for record forms received at this office.

In addition to an extension of the regular cow testing associations, Dairy Record Centres have already been established at Woodstock, Peterboro, and Perth, Ont., at St. Hyacinthe, Que., and at Kensington, P. E. I. A supervisor for cow testing has been appointed in British Columbia. We hope to have one or two more Record Centres established before the season opens.

The outlook on the whole seems to be encouraging.

Some Opinion on Cool Curing

We have had a cool curing room in our factory for three seasons. The saving in shrinkage will average from one to one and one-half pounds on every cheese.—Jas. H. Carter, Prince Edward Co., Ont.

The saving in shrinkage paid for our cool curing plant in two seasons. We consider that the cheese are 25 per cent better in the four months of warm weather, and even in the spring and fall months the cheese cure better in the cool room where the temperature is even.—J. J. Hogan, Peterboro Co., Ont.

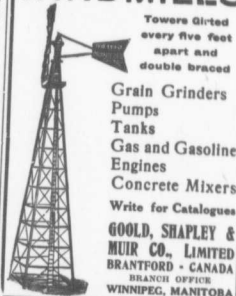
There is no doubt of the benefits of cool curing. We do not have those harsh textured cheeses if cooled at a proper temperature, and the saving in shrinkage is considerable. The cool curing of cheese is of great bene-

fit to the dairy industry, but I can not see any inducement for a private owner to put money in such a plant.—S. F. Facey, Middlesex Co., Ont.

I have tested the loss from shrinkage in my cool curing room with the less in the rooms of neighboring factories not so equipped, and I find the saving amounts to one pound the first week. The cheese are of a better quality, curv with more moisture and more fat, and should demand a better price.—J. A. Moffatt, Norfolk Co., Ont.

Cheese that have been properly cooled do not require subsequent storage at a low temperature to check injurious fermentations. They may be kept under suitable conditions for developing the rich nutty flavor, which is essential in a strictly fancy cheddar cheese.—John B. Muir, Oxford Co., Ont.

WINDMILLS



Towers tilted every five feet apart and double braced

Grain Grinders
Pumps
Tanks
Gas and Gasoline Engines
Concrete Mixers

Write for Catalogues

GOOLD, SHAPLEY &
MUIR CO., LIMITED
BRANTFORD - CANADA
BRANCH OFFICE
WINNIPEG, MANITOBA

WANTED TO PURCHASE

A well established Creamery business in live cows in Western Ontario. Write full particulars to Box K, Farm and Dairy, Peterboro, Ont.

CORN THAT WILL GROW
Compton's Early Hand Sorted. An early variety and large yield of fodder and grain. Write for prices.
W. B. ROBERTS, - SPARTA, ONT.

EXPERIENCED CREAMERY MAN-AGER

Is open for engagements. Apply, stating salary paid, to Box 365, Farm and Dairy, Peterboro, Ont.

EARLY LEARNING SEED CORN

—FOR SALE—

Guaranteed first-class. Will ship on approval. Price \$1.25 per bushel (o.b. Amherstburg). Liberal discount on large club orders.
JAMES MARTIN, AMHERSTBURG, ONT. Box 93.

SINGLE COMB BROWN LECHORN EGGS FOR SETTING

Excellent laying strain, \$1.00 per setting of 15.
THOS. FRASER, - LACHUTE, QUE.

DAIRYMEN, ATTENTION!

BEFORE BUYING

DAIRY SUPPLIES

—OR—
DAIRY MACHINERY

CONSULT

G. A. Gillespie

PETERBOROUGH, - ONTARIO

LAND PLASTER

Car Lots or Any Quantity.

WRITE FOR PRICES
TORONTO BALT WORKS

G. J. CLIFF, Manager.

A Progress

The Wooler bears all the weight of the equipment throughout the year. The wooler is a good year in 60,000 lbs.

A joint stock own the factor ped with six sets of agitators interior of the coat of paint not being over a coat of a Mr. B. A. Ruddick believe his belief, that a good example stands a clean tank war on

While talking Farm and Dairy dick said: "I have on them a bottle of m hours and se Screen doors gating with plur are the uses in his "I start early on flies through

Prospect

The plentiful enabled dairymen bring their cows in good condition in the

The Wooler who may be a neat, clean animal, but his patrons prove that he is article.

In Ontario is ed for the co the large am early spring be larger than ing period la pastures the ried through

Patrons of received som their milk t factories, and factories ha creameries th formerly mad both cheese and, more mil

K
S

A Progressive Cheese Factory
The Wooler (Ont.) cheese factory bears all the ear marks of progress. It is equipped in a modern way throughout. Milk haulers, rather than the farmers, draw the milk. The whey is pasteurized. The factory has a goodly yearly output—last year in 65 months the make was 310,000 lbs. of cheese.

A joint stock company of farmers own the factory. They have it equipped with six 8,000 lb. vats and five sets of agitators. Each spring the interior of the building is given a coat of paint, the shafting and pipes not being overlooked, they being given a coat of aluminum paint yearly. Mr. B. A. Ruddick is the maker. Mr. Ruddick believes, and he practices his belief, that the maker should set a good example for his patrons. He keeps a clean factory and wages constant war on flies.

While talking with an editor of Farm and Dairy recently, Mr. Ruddick said: "It is awful what the flies have on them. Put one of them into a bottle of milk and leave it for 24 hours and see what you will have." Screen doors on the factory and fumigating with formaldehyde and sulphur are the weapons Mr. Ruddick uses in his war on flies. He says: "I start early and keep up my war on flies throughout the season."

Prospects for Season 1911

The plentiful crops of 1910 have enabled dairy farmers of Ontario to bring their cows through the winter in good condition; a substantial increase in the output of many factories

Mr. R. R. Cranston, of Elgin Co., says: "We are making a complete change from cheese to butter. Formerly we made both, but now it will be butter only."

An increased interest in dairying is evidenced by the high prices that have ruled for grade cows. Mr. D. H. Price, of Elgin county, writes Farm and Dairy that grade cows have sold as high as \$110, and that \$75 to \$85 are not uncommon. The reports of some of our correspondents follow:

IN EASTERN ONTARIO

"My patrons will milk about the same number of cows this season as last. Feed was never so plentiful as it is this spring."—E. E. Chafee, Glangarry Co.

"Several of my patrons are putting in more cows. Feed is plentiful and cattle are coming through in good shape."—P. Reid, Russell Co.

"Prospects for the coming season are good as cows are coming through in fine shape."—J. J. Payne, Dundas Co.

"The number of cows milked will be about the same as last year. The cows are looking well and the supply of feed is large."—S. G. McCann, Leeds Co.

"All the farmers are keeping their old stock and adding young cows and I look forward to a good season this year."—Chas. Gallagher, Prince Edward Co.

"Prospects for a good season were never brighter. Daigmen are making provision for short pasturage by providing lots of silage."—S. A. McFarlane, Hastings Co.

"There is lots of feed in sight and

but they are in better condition than last year as feed is plentiful."—J. K. Brown, Huron Co.

"The number of cows will be about the same as last year. Feed is plentiful. Many more silos will be erected."—Frank Boyes, Middlesex Co.

"Most farmers are planning to put on more cows than usual."—Duncan Doane, Lambton Co.

What is the Correct System?

J. MacHoover, Oxford Co., Ont.

The greatest opportunity lying open for improvement in dairying is "paying for milk according to quality." If there could be introduced a correct system of "paying for milk according to the fat and casein constituents, it would mark an epoch in dairying worthy of the 20th century.

Some factories have been paying for milk by the butter fat test. Why so few if this method is correct? Are we not to believe from the small numbers adopting the fat test that it is not the proper and correct basis upon which to divide the dividends of a cheese factory? I understand that Dr. Babcock, our greatest dairy authority, claims that the fat alone is not the proper basis to divide the proceeds of a cheese factory.

We cannot but believe that in many cases patrons do not get their just due when paid by fat alone. There are many ways that a patron sending 15,000 or 20,000 pounds of milk per month might seriously lose when the testing is being done by unskilled manipulators of the Babcock tester, as through the composite sample not keeping good, by incorrect sampling and the improper handling of the Babcock tester.

Possibly there is nothing we need more to-day or nothing that would tend to the improvement of the Canadian cheese to a greater extent than an efficient system (universal) of paying according to quality for milk at cheese factories. The solution of this problem may be no easy task, but the officials at the head of Dairy departments would make history for themselves, by successfully introducing a plan along this line whereby the prospects for the future of dairying would continue to grow lighter.

Examinations at O. A. C. Dairy School

The Guelph Dairy School term closed on Friday, March 24th. Thirty-two students wrote on the final examinations—26 in the Factory Class, and six in the Farm Dairy Class. The following is the proficiency list for the class of 1911:

- Max. 1200: 1, Skelton, R. J., 1022;
- 2, Reid, Jas., 1012; 3, Halliday, R. M., 1000; 4, Bird, W. J., 914; 5, Burton, C. B., 892; 6, Capron, A. N., 889; 7, Shepherd, Wm. F., 843; 8, Silver, L., 818; 9, Gorguz, C., 814; 10, Hill, S., 807; 11, McCrae, F. R., 796; 12, Limag, E. J. P., 793; 13, Bell, N., 792; 14, Wilson, J., 744; 15, Kenny, J. J., 742; 16, Habkirck, O., 735; 17, Arscott, W. J., 733; 18, Elliott, A. J., 726, and Hunter, E., 230; 20, Gordon, J. M., 716; 21, Barnett, H., 694; 22, Millard, M., 678; 23, Capling, J. V., 673; 24, Scott,

FOR SALE AND WANT ADVERTISING

TWO CENTS A WORD CASH WITH ORDER

ONE THOUSAND PRINTED BUTTER WRAPPERS FOR ONE DOLLAR.—McKellen Printing Co., London.

BUTTER MAKER WANTED.—For the Beaver Valley Creamery. Apply to W. H. Petersen, Clarksburg, Ont.

WANTED.—A situation as first butter maker or assistant. Have had three years' experience. Apply to H. E. Doupe, Kirkton, Ont.

LIVE MAN OR WOMAN WANTED for work at home paying \$2.00 or \$3.00 per day with opportunity to advance. Spare time can be used. Work not difficult and requires no experience. Winston, Limited, Spadina Ave., Toronto, Ont.

FOR SALE.—Iron Pipe, Pulleys, Belting, Rails, Chain Wire Fencing, Iron Posts, etc., all sizes, very cheap. Send for list, stating what you want, The Imperial Waste and Metal Co., Dept. F.D. Queen street, Montreal.

WANTED.—Good second-hand Simplex or Success churn. State price and condition. McDougal-Evans, Ltd., Owen Sound, Ont.

WANTED.—First-class cheese and butter maker to take charge of Keene cheese and butter factory. May list. Apply Peter Drummond, Keene, Ont.

STEADY MAN SEES SITUATION on farm by the year. Life experience amongst stock. Two boys able to milk and be useful if needed.—Apply Edward Pavy, Hall's Bridge, Ont.

HARDWOOD ASHES.—Best fertilizer in use. George Stevens, Peterboro, Ont.

T. E., 661; 25, Parker, Wm. F., 644; 26, Lister, A. C., 642.

Farm Dairy Class, Max 940: 1, Robertson, Miss Grace, 1015, (max. 1140); 2, McCook, E. A., 746; 3, Woods, C., 721; 4, Leckie, L., 411; 5, Lammiman, Jas., 679; 6, Inaba, S., 583.

I am sending \$1 for my renewal to Farm and Dairy. It is a paper worthy of support.—Geo. Neilson, Dairy Department, Qu'Appelle District, Sask.

EASTLAKE



STEEL SHINGLES

FIRE, LIGHTNING, RUST AND STORM PROOF

BROOK, Ont., April 24, 1908
"We have installed your 'Eastlake' Shingles for nearly a year in a century. They have been on the Court House and Library, and other public buildings of this town for 15 years. We are very well satisfied with the work done in the past 25 years, and they have always given first-class satisfaction, and have never required any repairs."
Architect and Hardware Merchants.
HADDEN BROS.

Write for Booklet.
The Metallic Roofing Co.
Limited, Manufacturers
TORONTO & WINNIPEG



A Joint-Stock Factory About Which all is Progress

The Wooler cheese factory, here shown, is worthy of special note. The maker who may be seen in the foreground to the right of the illustration believes that neat, clean surroundings and strict cleanliness within his factory is an inducement to his patrons to live up to their responsibility in caring for their milk. Results prove that he is on the right track. Read description of factory in adjoining article.

in Ontario in consequence is predicted for the coming season. Owing to the large amounts of feed on hand the early spring make is almost certain to be larger than that of the corresponding period last year, and with good pastures the larger make will be carried through the whole season.

Patrons of creameries last year received somewhat larger prices for their milk than did those of these factories, and as a result some cheese factories have been turned into creameries this year, and others that formerly made cheese only will make both cheese and butter. Some, furthermore, will manufacture casein.

dairying is on the increase."—A. W. Milne, York Co.

IN WESTERN ONTARIO

"About the same number of cows will be milked this season as last."—E. Ginter, Welland Co.

"This year will be the biggest in the history of dairying in this section. More and better cows are being milked and there is abundance of feed."—D. H. Price, Elgin Co.

"I do not think there will be much increase in the number of cows milked this season."—R. R. Cranston, Elgin Co.

"Prospects are good. About the same number of cows will be milked

KEITH'S SEEDS

In ninety-nine cases out of one hundred we can save you money on Clovers, Timothy Seed and Seed Grains. Prices quoted in last week's issue of this paper on page 19, are still good. Our "Sun" brand Red Clover is that beautiful pure blue berried seed that sells on sight. It is cleaned, re-cleaned, and then cleaned again. We still have some O. A. C. No. 21 Barley on hand. Send in your order before it all goes.

GEO. KEITH & SONS, 124 KING ST. EAST, TORONTO

SEED MERCHANTS SINCE 1866

The Upward Look

No. 3.

But seek ye first the kingdom of God and His righteousness, and all these things shall be added unto you.—St. Matthew 6:33.

Last week an effort was made to show that the fundamental difference between the teachings of the modern school of writers on how success may be achieved and those of Christ lies in the fact that the former hold the thought that success is something that it is desirable to attain for its own sake, while Christ maintained that the salvation of our souls comes first and everything else afterwards. Christ knew that the devil himself will offer success as a reward to many of those who seek it merely as a bait to lead them into sin. The moment the devil can induce us to place the gaining of success first in our thoughts and the attaining of God's kingdom and His righteousness in only second place, he has gained his first victory. We then are in a condition to be led the more readily into deeper and deeper sin.

We must ever remember that the Devil is wonderfully cunning in the methods he adopts to gain his ends. He never suggests the committing of a great sin until he has first prepared the way by leading us to perform numerous smaller sins first. We are informed in the Bible that the Devil may disguise himself in the form of an angel of light in order that he may persuade us the more easily to believe that it is quite right for us to do something that is really but the beginning of sin. Notice how cleverly he disguises his arrangements when he tempted Christ in the desert. (St. Matt. 4:1-11). Thus, when we are told that Christ desires to give us the desires of our heart, that he longs to see us make a great success of our lives, that it is our duty to ourselves, and to our friends, to strive to gain success, we must not be misled into forgetting that there is a greater duty that comes first, our duty to love God with all our heart and mind and strength, and our neighbor as ourselves.

Christ did assure us that God will give good gifts to those who ask Him. (St. Matt. 7:11) but we are also told that "ye ask and receive not, because ye ask amiss, that ye may consume it upon your lusts." (James 4:3). Our first duty, therefore, always is to examine the character of our desires to see if God may be glorified in all that we do or if they are merely that we may attain comfort and ease, and the glory and acclaim of our fellow men. "For what is the man profited, if he shall gain the whole world, and lose his own soul?" (St. Matt. 16:16).—I.H.N.

Children Interested in Records

Anson Groh, Waterloo Co., Ont.

Many wisecracks who have had no experience in dairying whatever will tell you that dairy work is drudgery and that there is no surer way of driving the boy away from the farm than by keeping dairy cows. It has been my experience that if you manage to keep the boys and girls interested in the farm, establish a good dairy herd and let them know how it is done.

Get the children interested in milk records. On my farm, the children keep the records of milk production, and before the end of the year they are so anxious to know how the cows are coming out, they are adding up the production to that date, and making guesses as to how the cows will stand at the end of the year. I do not have to test each cow to know which cow to keep and which to sell. The children have them tested for me. Keeping the children inter-

ested in the farm work in this way is my idea of keeping the children on the farm.

Cans vs. Crocks for Cream

Women nowadays have plenty of work without having to look after a lot of crocks or other equally unsuitable receptacles in which cream is so commonly stored while it is awaiting the coming of the cream-hauler to take it to the creamery, or while enough cream is being collected to make a churning.

Aside from the extra work entailed where crocks are used there is loss as well ever and above what there would be if a nice clean can, made for the purpose like the one in the illustration herewith, were used and kept covered. If cream is to be kept in the cellar a cover is essential to the cream receptacle since otherwise the cream will absorb the old cellar flavor and of course this and other flavors that may prevail in the cellar will show

forth in the butter and reduce its value.

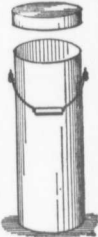
Have a can made for the purpose of storing your cream. It will lighten your work, will be more convenient, and it may be set in ice and water for the purpose of cooling the cream. The cost of such a can is insignificant compared with the advantage it will be to have it in which to store your cream.

Gray makes attractive-looking slippers, and so does brown, especially when two tones or a contrasting color is employed using each alternately. The edge could be finished with a simple shell design.

Bedroom slippers that are both comfortable and convenient for sun-

mer can be made from mercerized cotton, using a crochet stitch. They are fashioned much on the order of woollen slippers, except that instead of being joined in the back, the sides are run off to a point.

To clean greasy marks off of woodwork around the kitchen stove or knobs of doors wet a cloth with kerosene and rub over them. The same is good for cleaning marble wash stands.



WINDSOR DAIRY SALT

"Expect to get the prize for the best butter, this year?"

"Of course I do.

I have the best cows in the country—and here's my Windsor Butter Salt.

You can't beat that combination.

You know, I have won first prize for the best butter ever since I began to use Windsor Butter Salt"

"Hope you win"

"Thank you, so do I"



"Dey are da quick"
Ant Salina

In thousands of homes wash day is looked upon as one of ordinary pleasant occupation since the advent of the New Century Washer.

Start your washing at 8 o'clock in the morning and you are through before 10, with the clothes on the line, the kitchen cleaned up and the assurance that every particle of dirt or stain has been removed from the clothes without the slightest injury to the fabric, if you use a

New Century Washer

Just ask the woman who has one. This machine is not classed with ordinary Washers. They are Better Machines, Better Made on a Better Principle, and do Better Work in Better Time.

The NEW CENTURY is well made and the smallest details in its construction are given the closest attention. The wood in the tub is the best Louisiana swamp cypress, ribbed like a washboard, tongued, grooved and reinforced inside by a rust-proof steel ring to prevent warping and leaking. All metal parts in contact with water are galvanized by a secret process—will not rust or stain the clothes. All parts are made by automatic machinery, are absolutely interchangeable, and can thus be readily replaced in case of accident.

The NEW CENTURY is sold by all the best dealers. If your dealer can't handle them write us direct.

"Ant Salina's Wash Day Philosophy" is our new FREE Book, and gives many valuable hints on the washing of all kinds of fabrics. Send us a postal and get it to-day.

MUMFORDS WELLS Limited
HAMILTON, ONT.

Rules for Consumptives

Consumption as was pointed out in Farm and Dairy last week is a preventable disease and is largely spread through the carelessness of infected individuals. The following rules should be observed by all consumptives and individuals other than infected persons should see to it that they are observed.

1. The sputum, or matter coughed up by a consumptive, should not be spit upon the floor, carpet, stove, wall, or sidewalk, but always, if possible, in a cup kept for that purpose. Paper cups are best, since they can be burned, and their contents thus destroyed, after being used.

When a metal, glass or earthenware cup is used, it should contain a five per cent. solution of carbolic acid (six teaspoonfuls to a pint of water) to prevent the sputum drying and to destroy the germs. The cup should be emptied into the water closet or privy at least twice a day, and thoroughly washed with boiling water.

When consumptives are away from home, the sputum should be received into a pocket flask of glass, metal or pasteboard. Convenient forms of flasks and cups may be purchased at small cost from chemists.

Whatever receptacle is used, it

should have a cover so that flies may not have access to its contents.

Patients thought to use a cup should use moist rags, which should at once be burned.

If cloths or handkerchiefs are used by a consumptive, they should not be carried loose in the pocket, but in a waterproof receptacle, such as a tobacco pouch, which should be frequently boiled. If handkerchiefs are used, they should not be put in a laundry bag or other receptacle with other soiled linen, but should be kept immersed in a five per cent. carbolic solution or should be boiled at once in water for at least an hour.

A consumptive should never allow his sputum. Sputum swallowed may spread the disease to other organs. The hands should be washed and the mouth rinsed out before eating.

2. Great care should be taken by consumptives to prevent their hands, faces and clothing from becoming soiled by their coughing. If this does become soiled, they should be at once washed with soap and hot water.

3. Consumptives should always hold a cloth or handkerchief before the face during coughing or sneezing, lest germs be scattered in the small particles of spittle that are then forcibly expelled.

4. A male consumptive should be clean shaven. Hair about the face is apt to retain the germs existing in particles of spittle ejected during coughing or sneezing.

5. A consumptive should have his own bed, and, if possible, his own room. Both the bedroom and living room should have as much direct sunlight as possible and should always have an abundance of fresh air—the window should be open day and night. Many consumptives have benefited greatly from sleeping out of doors in tents, on roofs or piazzas.

6. The rooms should be cleaned daily, but, to prevent the raising of dust, all dusting must be done with damp cloths, and before sweeping, floors must be well sprinkled with sawdust, sand or paper or tea leaves, all thoroughly moistened.

7. A consumptive's soiled clothes and bed linen should be handled as little as possible when dry, but should be kept enclosed in water until the washing is to be done.

8. All rooms or apartments which have been occupied by persons suffering from consumption must, on death of any other persons can be allowed to reside therein until this rule has been complied with.

9. A consumptive woman should not nurse an infant. It drains the strength of the mother and subjects the child to the danger of infection, or in a few moments through the other nostril. Relief will come at once.

Butter Making Methods

Mrs. John Lang, Peterboro Co., Ont.

Our cream, as soon as it is separated, is cooled to as low a temperature as well water will make it; it is held at this temperature until the day before churning. We find that the simplex separator. We use a Simplex separator. We use a Simplex separator gives us Letter cream, better butter and more of it, with much less work than the old way of setting in pans.

The day before churning the cream is heated quickly to 70 degrees and butter milk added for a starter. Next morning I churn at 60 degrees or a little less. I would rather churn a long time and get greasy butter. My churning usually lasts half an hour.

Just before the butter forms into a lump, I draw off the butter milk, wash the butter in the churn, and then take out into a tub and salt, using a little over one ounce of salt to a pound of butter. I try not to

work the butter too much and yet enough to avoid mottles. I print immediately and roll in parchment. I have received a great deal of help about caring for cream and making butter from Farm and Dairy.

Use Brushes—Cloths Never

Cloths for the cleansing of utensils should have no place in the dairy. They are hard to keep clean and unless given the most careful care, will carry bad flavors and be themselves distributors of bacteria. Cloths, if used in the dairy, must be boiled often and regularly.

Brushes are much cleaner and are more effective cleaners. With the proper style of a brush the most minute crevices can be reached and the brush itself is easily cleaned and sterilized when the work for the day is over. The style of brush that most home dairy makers have found convenient is one having bristles at both ends. Such a brush is very effective in cleansing the corners in milk pails, the separator bowl and so forth. Get a special dairy brush; if you cannot get one to suit then use a common scrub brush (a new one).

The Lonely Chick

I'm just a lonely little chick—I can't not—I had a mother to protect me 'neath her wing.

Of brothers and of sisters I have twenty-five or so; We sadly need a mother now to bring us up, you know.

Another family of chicks is living in our pen,

And they've a watchful mother—such a nice big speckled hen—such She hunts for dainty morsels, then she calls, "Cluck, cluck! come quick!" But oh, she shuns me, for I'm called "an incubator chick."

I saw an ugly, thieving cat come prowling round one day, Then Mother Speck just spread her wings and hid her chicks away; But when I tried in following, beneath her wings to creep, Those cruel chickens pecked at me, and cried aloud, "Cheep! cheep!"

My owner tells my pedigree, and says I'm "splendid stock"; That Leghorns and Buff Cochins can't compare with Plymouth Rock;

But what is pedigree to me when Hawks come flying round, And incubators have no wings to hide me safe and sound?

Some day, perhaps, when to hen like Mrs. Speck I've grown, I'll scratch up tempting morsels for a family of my own;

Then, if some lonely orphan comes—my choicest scraps to pick, I won't forget that I was once "an incubator chick."

Kathrine L. Daniker.

Some of the Best Roles

BY "AMATEUR"

In reply to the request of "A Lover of the Queen of Flowers" that appeared in a recent issue, the following is a list of hybrid perpetual roses which will please: Alfred Colomb, Baroness Rothschild, Captain Hayward, Charles Lefebvre, Clis, Duke of Edinburgh, Dupuy Jamain, Elclair, Fisher Holmes, Frau Karl Druschki, Margaret Dickson, Mrs. Cosker, Madam Gabriel Lunise, Marchioness of Dufferin, Merville de Lyon, Mrs. John Laing, Mrs. R. G. S. Crawford, Madame Victor Verdier, Marshall P. Wilder, Paul Neyron, Prince Camille de Rohan, Robert Duncan, Suzanne M. Rodocanachi, Ulrich Brunner.

Buy Farm and Dairy Patterns

OUR HOME CLUB

HE HIRED HIS OWN BOY

Boys will start on a farm as well as anywhere, if they receive decent treatment at home. The boy who is ranked out of bed by the hair, kicked out of milk and cuddled into breakfast, as a preliminary to being popped through the field all day, is not likely to be consumed by his love for glories of agriculture—nor for his hire.

One of the speakers at a recent New Brunswick Farmers' and Dairy-men's Association told how his 10-year old son had come to him when the holiday season opened last year and said "I am going to work for Mr. So-and-So." This set the father to do some good, deep thinking and turning to his son he said, "I will hire you to work for me." "But," said the boy, "I have made my agreement with Mr. So-and-So." The father asked his son to call on Mr. So-and-So and explain the situation and on doing so the would-be employer released the boy from further obligations. One job after another was tackled by the boy; his father paid him as regularly as if he were an outsider; the boy was contented and his father and son interested in each other.

Is there not a lesson in this episode for some other father. Ask yourself the question "Do I use my boy right?" Will your answer be yes? or will it be no?

Give the boy a fair show, and he will stay with you till the cows come home. If you are so mean he can't stay at home, don't you go to your neighbors with a hypocritical sniffle and tell about your boy's ingratitude after you have raised him.

The foregoing article, which I read in the Maritime Farmer, recently, fits in with my ideas so well that I pass it on if Farm and Dairy will be so good as to publish it in the columns devoted to the home club. Let every father take heed. It may be that the precept, similar action on your part may be required to save your boy to the home farm.—"The Son."

Have about a quart of dried pumpkin prepared. Beat into the pumpkin six eggs, two cups of sugar, and seven with mixed spices. Add one quart of good rich milk. Line five or six pie dishes with a nice rich flaky crust, fill the crust with the above mixture, and bake in a moderate oven.—"Country Girl"

Quality Butter

That's the kind you makewit Maxwell's "Favorite" Churn—



Maxwell's "Favorite" is used all over the world. It is the best butter country of the world—in the United States, in every of high latitudes—and in every Section of Canada. Our Agricultural, Colonial, and Govt. inspectors recommend it, because it is the best butter for culture. Write for catalogue to your dealer does not handle it. DAVIE, MAXWELL & SONS, ST. MARY'S, ONT. 94

Washing

Considerable cents—washing of feet per washing not only in but in more in the skin dirty separate amount to one year more than Experiments verity of Canada the normal milk from a fer a year, tior is washed. That is, the carelessness is

The separate eagerness to one washing, advocating a decrease in quality of butter of the separate Household Dairy should figures and subject as published pages this Home

Two Factors

Two factors butter on the texture. It greater portion butter made both of these while cream to 20 cts. a liter is quoted the poorer which are 0 at 16 cts. At the home dairy quality and even higher article. While Canada several is made on prices the grade is evident.

If first you a hand soap and a comb churning, a level thermometer complete the home

ask rich cream, that will ch one-half lbs



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Baby's Own Soap

"Best for Baby—best for You."

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**Washing the Separator
Important**

Considerable loss—in actual dollars and cents—results from infrequent washing of the separator. The proper washing of the separator results not only in purer and better butter, but in more butter. The loss of fat in the skim milk through using a dirty separator, while it does not amount to very much in one day, in one year the direct money loss is more than most of us can well afford. Experiments carried on at the University of California show that while the normal loss in the fat in the skim milk from a herd of 40 cows is \$24.45 for a year, the loss where the separator is washed but once daily is \$48.91. That is, the loss is doubled through carelessness in washing the separator.

The separator agent, who in his eagerness to make a sale, tells us that one washing a day is sufficient, is advocating a practice that leads to a decrease in both the quantity and quality of butter and lessens the life of the separator. Readers of the Household department of Farm and Dairy should especially look up the figures and chart relating to this subject as published on the creamery pages this week.

Home Butter Making

Two factors determine the value of butter on the market—the flavor and texture. It is regrettable that the greater portion of the home dairy butter made in Canada is deficient in both of these qualities. As a result while creamery butter sells for 26 cts. to 29 cts. a pound, home dairy butter is quoted at 18 cts. to 20 cts. and the poorer grades of dairy butter, which are only used by the bakers, at 16 cts. A very small percentage of the home dairy butter is of the best quality and brings prices ranging even higher than the creamery made article. When we consider that in Canada several times as much butter is made on the farm as in the creameries the great loss to the producers is evident.

If first quality butter is to be made a hand separator is both a necessity and a convenience. A revolving churn, a lever butter worker, a dairy thermometer, printer, and ladles complete the home butter-maker's outfit.

SKIM A RICH CREAM

If the separator is set to skim a rich cream, say 30 per cent. or one that will churn three to three and one-half lbs. of butter per gallon,

a better grade of butter will result. Thin cream must be churned at a high temperature, which injures the texture. Separator cream should be cooled immediately to 45 degrees and warm cream should never be mixed with cold cream. When the cream is held more than two or three days lard flavored butter is likely to result. Churning every other day is a good rule.

The day before churning ripening of the cream should commence. Heat the cream to 70 degrees by standing



Do You Make Butter this Way?

Don't do it any more. The method is quite out of date, and it accounts for much of the low quality, terrible-tasting, low-priced butter that is placed upon the market each year.

the cans in warm water, add 10 per cent. of starter, and hold the cream at a temperature of 65 or 70 degrees for 12 to 18 hours, with frequent stirring during the first few hours.

Before churning the cream will need to be cooled to a temperature of around 62 degrees in winter and 58 degrees in summer. At this temperature the churning should be completed in 25 or 30 minutes. If the butter is coming a little too soft the addition of a few quarts of water somewhat colder than the cream will improve the texture. When the butter collects in granules the size of wheat grains, the butter milk may be drawn off, the churn half filled with water at a temperature of 55 degrees, and the churn given a few revolutions. Two or three washings may be neces-

sary to get rid of all the butter milk. **ON THE WORKER**

When the butter is removed from the churn to the worker work over a few times, giving the lever a rotary motion, and then add salt. Be careful not to spoil the grain. People want butter with a grain to it. They can buy grease—and much home dairy butter is little better than grease—at a much lower price than butter. If the salt is thoroughly worked in, mottles, which is one of the most common defects of home dairy butter, will be avoided.

The most popular print on the market is the plain, oblong one-pound print. If it is desired to build up a reputation for first-class dairy butter, printed wrappers with an attractive design bearing the name of the farm and of the maker will be a good investment. If plain wrappers are used the customer, even if very favorably impressed with the quality of the butter, will not know where to obtain more of the same kind.

**Music Hath Unexpected
Charms**

It is related that a New Jersey dairyman has discovered that "music hath charms to soothe the bovine ulla," or words to that effect. This Jerseyman had a milkmaid who was accustomed to sing, as she pulled the cow's "pickles," and the cows listened to her solos and "gave" down in sheer ecstacy delight. Then the maid did as other maids have done, she married and left her cows, which mourned the loss of her singing. The dairyman saw at once a decrease in milk flow from his herd and he was forced to buy a phonograph to supply "canned music." Before those cows would "give down." The modern milking machine should certainly have phonograph attachments for musical cows. The suggestion that the Jerseyman should have hired a Jersey "skeeter" to sing for the cows is not approved by our agricultural college, lest the dairyman or his cows should cry "Stung!" and kick over the milking stool.

We have sat upon Swiss chairs cleverly arranged so that, whenever one sat thereon, the chair began to tinkle out sweet music; who knows the future possibilities of the milking machine? A musical stool, sweetly singing "Shall We Gather at the River?" would be suggestive, and might easily double the output of

almost any dairy. Even, "A Life on the Ocean Wave" would be good, were it not for the salty flavor, though even that might help some in butter making—North Western Agriculturist.

Don't Oversalt Butter

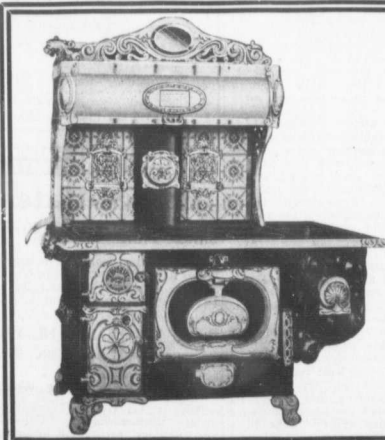
Dairy butter sells for about 20 cents a pound. Salt can be bought for two cents a pound, and the best grade at that. The butter maker who thinks that by adding an excessive quantity of salt he or she is selling a two cent article for 20 cents is making a mistake. Not only is the price for over salted butter lower, but over salting of butter is accompanied by a corresponding decrease in the moisture content. Water is cheaper than salt. Why not sell water for 20 cents a pound instead of salt? (Of course, don't exceed the legal limit of 16 per cent.) Three-quarters of an ounce of salt to a pound of butter is the outside limit for 1st quality butter in Ontario. If the butter is intended for export to the Old Country a quarter of an ounce is plenty.

Aside from the quantity used, the quality of the salt and the insulating of it into the butter, are the two points of importance. Coarse salt, even if well washed out, should never be used. Salt not well incorporated gives the butter mottled appearance and decreases its value by two to four cents a pound.

Care of Wooden Dairy Utensils

Butter sticking to the wooden utensils is a difficulty experienced by all butter makers, particularly in summer. This could be largely avoided by giving the wooden utensils proper care. In preparing the churn, if it is first scalded, then scrubbed with salt and cold water, and finally rinsed out with cold water, little difficulty will be encountered with butter sticking to the wood. After churning, the churn may be scrubbed with warm water and a brush, followed by salt and water, and finally scalded. If the churn is cleaned in this manner, the woodwork will always have a sweet, pleasant smell.

Other wooden utensils, such as ladles, butter worker, and printer, may be cleaned in exactly the same manner. When printing the butter, if a pan of cold water is kept handy and the printer and ladle plunged into it at frequent intervals, the latter will have a less tendency to stick to the printer.



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This Range can also be fitted to burn coal as well as wood when desired, and a continuous coal fire can be retained day and night.

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Something About Vegetables

Vegetables are of great use in correcting the stimulating effect of a meat diet; this being especially the case where the meat has been salted, it having been taken, and but little vegetables, that scurvy and various cutaneous diseases were very prevalent.

The various kinds of cabbage are of much use as articles of diet. They are better suited for persons in robust health than for the weak. In the latter, they are apt to produce various disorders of the stomach.

Cauliflowers and broccoli are both more tender and more easily digested than cabbage, savoy, greens or kale.

Spinach, although an agreeable article of food, does not contain so much nourishment as cabbage or cauliflower. Parsnip contains much nourishment, although, perhaps, not quite so much as the carrot. It is an antiscorbutic, and prevents the ill effects that result from living on a salt diet.

The carrot is a root which contains much sugar, and is very nutritious, but by some authorities is not considered so digestible as the turnip.

Endive is wholesome, either boiled or eaten raw with salad. It contains a bitter principle, and is slightly narcotic.

Beans, although both wholesome and nutritious, especially when young, yet are best suited for those persons who

take much exercise in the open air. They are rather apt to disagree with persons of a sedentary habit. The tough coat that covers the bean is found to be very indigestible. Beans are usually eaten with bacon, in which case the fat of the meat tends to counteract many of the ill effects of the bean. In weak stomachs they are apt to produce indigestion and heart burn. The kidney, or French beans, when eaten young (as they usually are) are very digestible, and are more easily acted on by the stomach than by any of the other legumes.

Peas contain much nourishment. According to some writers, they consist of more than half of nutritious matter.

The watercress is cooling and antiscorbutic, and acts as a stimulant to the stomach and promotes digestion. Beet-root is very nutritious, and is a good antiscorbutic; but, probably from the large quantity of sugar it contains, is so apt to cause flatulence, that it is rarely employed as food for man. Much of the sugar used abroad is obtained from this root. It is found that one pound of sugar can be obtained from fourteen pounds of beet-root. This vegetable makes an excellent pickle.

The radish, although healthy and anti-scorbutic, should when it possesses an acrid and pungent taste, be carefully avoided by dyspeptic persons.

Asparagus is very digestible, so far as the heads are concerned, which is the only part eaten, and does not produce any acidity of the stomach. Artichokes resemble asparagus with regard to their digestibility.

coffee icing.—A Reader of Farm and Dairy.

DUTCH BLIND BIRDS

Out a thin slice of uncooked veal cutlet in small oblongs. On each piece cut a small strip of salt pork, graded companion and chopped parsley. Add pepper but no salt as the pork supplies it. Roll each piece up and tie with a string. Roast in a slow oven with a little flour and butter in the pan.

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Is the Perfect Washer that gives satisfaction, and that is guaranteed. Easy to work, runs on Ball Bearings, and washes everything from handkerchiefs to heavy articles with rapidity and thoroughness. You will be astonished to see how perfectly clean every article will be. Do not do another washing in the old "back-breaking" way when you can supply you with a washer that will cut, wash-day in half. Write for Booklet, J. H. CONNOR & SON, LIMITED, OTTAWA, ONT.

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Ask for "St. Lawrence Crystal Diamonds"—in 5 pound boxes—also sold by the pound.

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THE COOK'S CORNER

Recipes for publication are requested. Inquiries regarding cooking, recipes, etc., gladly answered upon request, to the Household Editor, Farm and Dairy, Peterboro, Ont.

NUT FUDGE

Cook together 2 cupfuls light brown sugar, 1 cupful of thick cream, 2 squares of grated chocolate and a teaspoonful of butter until it gets waxy when dropped in cold water; add vanilla to taste, take from the fire and beat until thick and creamy; spread a buttered pan with English walnut meats, cover with the candy and cut into squares when nearly cool.

QUICK COFFEECAKE

One tablespoonful of butter, one cup of sugar, one egg, one cup of milk, one and a half cups of flour, one heaping teaspoonful of baking powder, juice and grated rind of a lemon. Mix thoroughly and spread the dough in a shallow greased tin, sprinkle with chopped nuts, cinnamon, and sugar, and dot with butter. Bake till brown and crisp, cut in squares and serve very hot.

APPLE TAPIOCA PUDDING

Soak three tablespoonfuls of tapioca over night in milk or water. After the tapioca is prepared, peel quarter and core some good cooking apples and fill the bottom of the pudding dish with them. Sprinkle with sugar, pour the tapioca on top of the apples. Then bake and serve with either whipped cream or good fresh sweet cream.—Country Girl.

COFFEE BICLARS

Four oz. of fine flour, 4 oz. of butter, 2 oz. of sugar, 2 large or three small eggs, 1/2 pint water, salt, vanilla or other flavoring. Put the water, butter, sugar and a good pinch of salt into a stew pan. When boiling add flour previously sifted, stir and cook gently for at least ten minutes. Then let it cool, add eggs one at a time, add flavoring and spread in buttered pan in strips size of finger about one inch apart. Bake to a fawn color. When done split side and fill with whipped cream and ice with

Standard

INTERESTING FACTS

The new "STANDARD" book just published tells about the latest achievements in Cream Separators. It is not made up of FICTION but of FACTS.

About Cream Separators

It describes the perfect running, perfect skimming Separator shown here and explains why a Separator that runs in a bath of oil lasts longer and runs easier and steadier than one depending on an oil can and glass tuburi. cators.

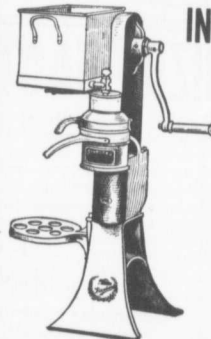
It also explains why the "STANDARD" Separator gets more cream from the milk than can be got with any other Separator.

Yours for the Asking

WRITE US NOW and you will be sent one of these books post paid, free of charge; also the facts of a recent contest at Fort Rowan, Ont., in which the "STANDARD" demonstrated its skimming supremacy.

WRITE NOW. ADDRESS DESK 6

The Renfrew Machinery Co., Ltd. RENFREW, ONT.



Embroidery
Designs it will be rare. Readers design will contain Household They will possibly find

572 Design Neck

574 Design suitable for a skirt, a Blouse Transfer patterns included

575 Design Patterns for

576 Design Cloth & Doyley 21 by 27

Embroidery Designs

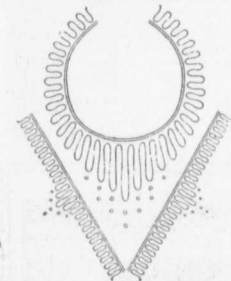
Designs illustrated in this column will be furnished for 10 cents each. Readers desiring any special pattern will confer a favor by writing Household Editor, asking for same. They will be published as soon as possible after request is received.



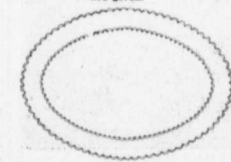
572 Design for Embroidering a Low Neck Night-gown with Short Sleeves.



574 Design for Embroidered Panel. Suitable for a Parasol Cover for a Dress Shirt, a Blouse Front, and for various decorative purposes. Transfer patterns for 8 panels are included in each pattern.



575 Design for Banding or Embroidering a Blouse or a Gown. Patterns for stamping neck and sleeves are given.



576 Design for Embroidering Oval Tray Cloth with scalloped edges. One Doyley 2 1/2 by 15 and one 1 1/2 by 11 inches long are given.

SPECIAL SPRING FASHIONS

Realizing the great interest that our readers take in the new spring styles, we shall only give additional space to the pattern department of Farm and Dairy for this week. Look over the illustrations in the fashion department and send your orders early. If you do not see the style illustrated that you would like, advise us, and we will do our best to get it for you. Write all prices plainly, giving name and address, size and number of pattern desired. Address, Pattern Dept., Farm and Dairy, Peterboro, Ont.



EMPIRE NIGHT-GOWN FOR MISSES AND SMALL WOMEN, 6972.

The night-gown that gives an Empire effect is fashionable, and also one that girls like especially well. This one is dainty and charming yet so simple that it can quite easily be made. The fronts are tucked at the shoulders, but the back is plain, and if a simpler effect is wanted the heading that gives the Empire effect can be omitted.

The 16 year size requires 4 1/2 yards of material 36 or 37 1/2 yards 44 inches wide, with 2 1/2 yards of lace and 2 1/2 yards of heading.

The pattern 6972, is cut in sizes for misses of 14, 16 and 18 years of age.



SEMI-PRINCESS DRESS FOR MISSES AND SMALL WOMEN, 6989.

Semi-Princess dresses are exceedingly well liked. They are pretty becoming and practical. This one is absolutely simple, yet it is given an effect of elaboration by the arrangement of insertion. The blouse is just the simple tucked one, shown in the small view.

The 16 year size requires 7 1/2 yards of material 27 inches wide, 4 1/2 yards 36 or 44 inches wide with 3 yards of insertion.

The pattern No. 6989 is cut in sizes for misses of 14, 16 and 18 years of age. It will be mailed to any address by the Fashion Department of this paper on receipt of 10 cents. (If in haste send an additional two cent stamp for letter postage, which insures more prompt delivery.)



FANCY BLOUSE, 6983

The fancy blouse cut in one with the sleeves is one of the latest whims of fashion. This one is attractive yet is simple. It is peculiarly well adapted to combinations of materials and it makes a charming model both for the gown and for the odd waist.

Material required medium size is 2 1/2 yds. 27 or 36 or 1 1/2 yds. 44 in. wide, with 1/2 yd. of all-over lace and 1/4 yd. of silk for bands.

The pattern is cut for a 34, 38, 40 and 42 in. bust measure.

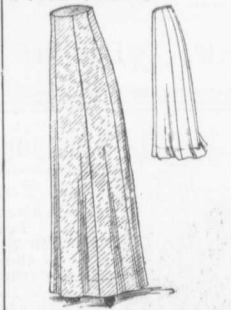


GIRL'S PRINCESS DRESS, 6950

Children's frocks that are made without openings slipped over the head are among the smartest and most approved. This one is exceedingly attractive and can be made as illustrated or with plain edges as preferred.

The 6 year size requires 2 1/2 yards of material 27 or 2 yards 38 or 44 inches wide.

This pattern is cut in sizes for children of 4, 6 and 8 years of age.



NINE-GORED SKIRT, 6979.

The nine-gored skirt is one always in demand. It gives a slender effect to the figure and it gives the long lines that are requisite to grace, also it is especially adapted to narrow materials.

In making this one is made with a high waist line, but it can be cut off and adapted to a belt if preferred, so that it really suits all figures.

The quantity of material required for the medium size is 7 yards 27, 8 yards 36 or 4 1/2 yards 44 inches wide when material has figure or nap; 6 1/2 yards 27, 4 yards 36 or 3 yards 44 inches wide when ma-

terial has neither figure nor nap. The width of the walking skirt at the lower edge is 2 1/2 yards. This pattern is cut in sizes 22, 24, 26, 28, 30, 32, 34 and 36 inch waist measure.



BLOUSE OR SHIRT WAIST FOR MISSES AND SMALL WOMEN, 6983.

The shirt waist that is made with a plait over each shoulder is a becoming one to youthful figures, and this model is designed for girls and for small women.

The quantity of material required for the 16 year size is 3 1/2 yards inches wide 2 yards 36 or 1 1/2 yards 44 inches wide.

This pattern is cut in sizes for misses of 14, 16 and 18 years of age.



HOUSE GOWN FOR MISSES AND SMALL WOMEN, 6929

The house gown that is closed at the left of the front is one of the newest and smartest. This one is designed for young girls and for small women. The blouse is cut in one with the sleeves and the skirt is five gored. The two are joined by means of a belt and the closing is made with buttons and buttonholes.

For the 16 year size will be required 6 1/2 yards of material 27 inches wide, 4 1/2 yards 36 or 3 1/2 yards 44, with 1 yard 27 inches wide for the trimming bands.

The pattern is cut in sizes for girls of 14, 16 and 18 years of age.

Another Prize Farms Competition

(Continued from page 4)

The scale of points will be as follows: House, 155, viz., plan, finish and approaches 25, lawn 20, garden and orchard 35, arrangement of house 25, sanitation 15, ice and water supply 15, education, including books and periodicals, 20; total, 155.

Buildings, 175, viz., provision and size 25, location 25, condition 20, neatness 20, convenience 25, light and ventilation 25, water supply 25, yard 10; total 175.

Live stock, 210, number 40, quality and condition 40, breeding 40,

feeding 20, horses 30, swine 25, poultry 15; total, 210.

Crops, 215, viz., suitability for milk production 50, yields and condition 75, freedom from weeds 75, pastures and shade 15; total, 215.

Management, 140, viz., arrangement of fields 20, rotation 25, fences, manship and roads, 30, workmanship and neatness 25, preservation of manure 20, bookkeeping and records 20, summer water supply 10; total, 140.

Machinery 75, viz., supply 25, housing 20, condition of repair 20, character 10; total 75.

Permanent improvement 80, viz., public roads 10, freedom from ob-

stacles 25, drainage 25, beautifying 20, total, 80. Grand total, 1650.

THE CHANGES MADE

The only changes made between the score as given and the score used in the last contest were as follows: Instead of offering only 20 points for ice and water supply it was decided to offer 15 points for the supply of ice and water in the house, 25 points for the supply of water in the barn, and 10 points for the summer water supply on the farm, it being felt that the importance of water on a dairy farm should be emphasized as much as possible. In the points offered for the house, five points were given for the lawn, 20 were given for education, instead of 25, 25 for arrangement instead of 30, and 15 for sanitation instead of 20.

No changes were made in the score for live stock except that 10 more points were offered for swine, it being felt that 15 points was too low. Under the heading of crops, 15 points were added for pastures and shade. Under the heading of machinery the points offered for condition of repair were reduced from 25 to 20, while those offered for housing were increased from 15 to 20. These were practically the only changes made.

NOTHING FOR EXTRAS

A lengthy discussion took place over the advisability of offering special points for such items as sheep, bees, or a good bush lot. It was pointed out that one of the competitors in the last contest had a fine flock of sheep for which he did not get any credit, that several kept bees and that several had good wood lots. It was felt that it was hardly fair to these men or to others like them who might enter this year's contest not to receive points for these advantages.

Against this it was shown that these were exceptional cases, not the

rule, that it is a dairy farms contest, that there are many farms that are making a great success of their dairy features which do not find it advisable to keep sheep or bees, and which have not got a wood lot, and that to offer special points for these would be to prevent such farmers from scoring anything for them, and thereby put them under a handicap. The more the subject was discussed the more it seemed evident that it would be dangerous to try and amend the scale of points so as to include what seemed to be largely exceptional cases, as far as dairy farms are concerned. The conclusion reached was not to amend the scale of points so as to include such cases.

THE DISTRICTS

The districts will be divided as follows, ten handsome prizes being offered this year in each district:

DISTRICT No. 1.—That portion of Eastern Ontario lying East of a line running North of Kingston.

DISTRICT No. 2. The counties in Eastern Ontario between Kingston and Yonge St., Toronto.

DISTRICT No. 3.—Western Ontario, North of a line running from Hamilton to Goderich.

DISTRICT No. 4.—Western Ontario, South of a line running from Hamilton to Goderich.

DISTRICT No. 5.—The district of Beauharnois, Que., including the counties of Beauharnois, Chateauguay and Huntingdon.

The first four districts are subject to revision after the entries have been received to facilitate the judging of the farms.

ENTER EARLY

Farmers who propose taking part in the contest should enter their farms as quickly as possible. Many who stayed out of the last contest, feeling that their farms were not good enough were afterwards sorry when they saw what a good chance they would have had to win some of the leading prizes. Bear in mind that every farm has its weak points. None of the farms in the last final contest scored 80 per cent., not even the first prize farm in the province. Your farm, therefore, possibly has a better chance than you suppose.

Tell your neighbors who have good farms about the contest. Urge them to enter their farms. Two years ago there were a considerable number of farmers who did not hear about the competition in time to enter their farms. Help us to see that this does not happen again this year. The more farms that enter the better and the merrier.

Keep this copy of Farm and Dairy carefully so that you may be able to refer to the regulations easily should you desire. Help us to make this contest a still greater success than the last.



MURESCO

For Walls and Ceilings

The first step in making a home beautiful is to coat the walls with Muresco. It gives just the restful, quiet background for pictures and furniture. Dingy walls and ceilings make it impossible to beautify any room.

Muresco is a powder. It comes in five-pound packages—any tint—and in applying is mixed with boiling water. It is easy to use and economical. Ask your dealer for Muresco. Our descriptive literature about Muresco will be sent on request.

Twenty-five Million Pounds of Muresco Were Sold in the U. S. Last Year.

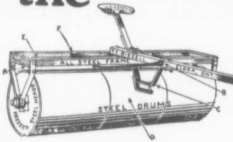
Moore's Paints We are also the makers of Moore's House Colors, a line of paints that have no equal for durability and economy.

BENJAMIN MOORE & CO.
Brooklyn, N. Y. Cleveland, O. Chicago, Ill. Carteret, N. J. Toronto, Can.

Make sure it bears the "Bissell" name

Like most experienced farmers, you want the "Bissell" Land Roller, but you'll need to be careful or you may get an imitation. Therefore, be sure that the name "Bissell" is stamped on the roller you buy, for no roller is a genuine "Bissell" unless it bears the "Bissell" name. In no other roller will you get large

Roller Bearings, $\frac{1}{2}$ inch in diameter; nor solid malleable cages; not a steel plate bottom in the frame; nor drums riveted every two inches. No other roller has the seat projected over the frame and the low flange to balance all the weight off the horses' necks. Our Roller Booklet describes many other



exclusive "Bissell" features and shows our 6, 8, 9 and 12 ft. styles. Ask Dept. B. to send you a copy. We also supply Grass Seeder Attachment for use on "Bissell" Land Rollers.

T. E. Bissell Company, Ltd., - Elora, Ont.

Stumping Powder

Do You Know
The Value of Stumping Powder

ON THE FARM
—AND THAT—
MONEY : TIME : AND : LABOR
Can be Saved by using
CANADIAN EXPLOSIVES, Limited
STUMPING POWDER

—FOR—
Blowing Out and Breaking Boulders
Turning up and Aerating Sub-soil
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Write for Descriptive Catalogue on Stump and Boulder Blasting and Prices.

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COBALT, ONT., VICTORIA B. C.**

What Happened to the Boulder by using Stumping Powder

Nearest to where you reside



THE BOULDER

CANADIAN EXPLOSIVES, Limited
Successors to Hamilton Powder Company.



HOLSTEIN-FRIESIAN

Farm and Dairy of the Canadian Association, all who are readers of the Association's items of interest in publication in

In addition to Lord Roberts De this issue, Messrs. J. Mer West have and



Young Cow

During the past Frankford and Tr records for milk an illustration of which stood almost 2000 is known this recorder grand-daughter year, 11 months, 15 days. This grand an error her recognition of another herford, Ont., owns the Holsteins consisting



This is the milk, and 250 of butter in 30 days an error her cut that of "May" B. months old gave 8 months and is still THE BO

The demand for

AB
Cures Strains
Pulls Evil, Fights
up and Sweats
Pain Quickly
the hair, or to
to save 50¢
liveries. Hold
Mr. R. H. R.
written April
here with a big leg
SORENESS and it cures
W. F. YOUNG, P.O.F., 123 T.
LYMAN'S Ltd., Mon

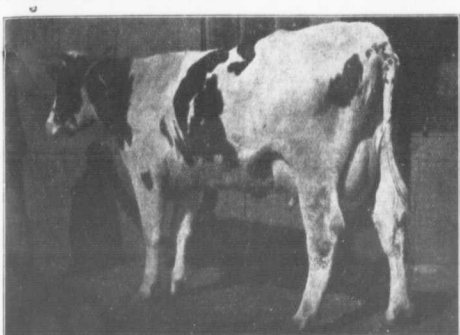
HOLSTEIN-FRIESIAN NEWS

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

In addition to the four heifers from Lord Roberts De Kool as illustrated in this issue, Messrs. Laidlaw & Sons of Ayr, near West have another heifer from this

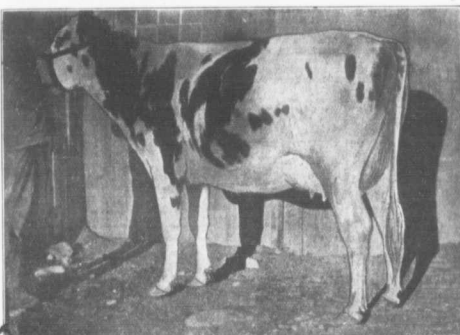
cow was never so great as at present. In spite of all the obstacles she had to overcome, the Holstein cow has pressed on, until to-day members of our Association may be found in almost every section of the world, including New Zealand and South America.

"I pity the man whose ignorance or selfishness is such as to blind him to the wonderful capabilities of this exceptional breed of cow. I know whereof I speak. I have bred Jerseys, and am not surprised that many men of wealth like to surround their homes with those pretty fawns like creatures. The Jersey has her day. Let it be known that the man who tries to retard the progress of this great



Young Cow with Great Record. Grand-Daughter of "May Echo"

During the past few months three Holstein cows have come to the front in the Frankford and Trenton Districts, Ont., with what are thought to be world's records for milk and butter production. One of these is the cow "May Echo," an illustration of which was published in Farm and Dairy last issue, which has produced almost 24,000 lbs. of milk in one year in Record of Performance. As far as is known this record has never been equalled under similar conditions. Another is her grand-daughter "May Echo Sylvia," illustrated above, which at the age of one year, 11 months, recently in an official test gave over 21 lbs. of butter in seven days. This grand heifer is owned by Mr. M. A. Maybuck, of Trenton. Through an error her record was published last week in Farm and Dairy under an illustration of another heifer "Lulu Keyes" illustration below. Mr. F. B. Mallory, Frankford, Ont., owns the bull calf of "May Echo Sylvia," which will be sold at the Belleville consignment sale tomorrow, April 7th.



A Champion Senior Two-year-old Heifer, Lulu Keyes

This is the heifer that recently established the great record of 586.61 pounds of milk, and 21.61 pounds of butter in seven days, and 2,244 lbs. of milk, and 37 lbs. of butter in 29 days. She is owned by Mr. E. B. Mallory, Frankford, Ont. Through an error her cut was published in last week's issue of Farm and Dairy as being that of "May Echo Sylvia."

bull in test which at two years, two months old gave 4,100 lbs. of milk in five months and is still giving 51 lbs. a day.

THE HOLSTEIN COW

ABSORBINE

Cures Strained Pully Ankles, Lumbago, Pull Evil, Fissels, Sores, Wire Cuts, Bruises and Swellings, Lameness, and All Pain Quickly without Blisters, removing the hair, or laying the horse up. Price 25c to 50c per bottle at all Dealers or delivered. Horse Book 5 B free.

Mr. Robt. Jones, Sr., Marston, Ont. writes April 8, 1907, "I had a valuable horse with a big leg and used one bottle of ABSORBINE and it cured him completely." W. F. YOUNG, P.O.F., 123 TEMPLE ST., SPRINGFIELD, MASS. LYMAN'S Ltd., Montreal, Canadian Agents

breed is bound to be crushed beneath the nearhesterone that this great cow will roll over him."

"Our Association by June next will have 5,000 members and \$100,000 in our treasury. Our largest record for a cow is something like 37 lbs. of butter in a week, 1,200 lbs. for the year, and 130 lbs. of milk in one place but we are finding that she is not suited to the needs of the average farmer, whose dairy herd must not be an item of expense, but return a profit.

"From the Atlantic to the Pacific, thousands of men are demonstrating by unparalleled successes, that in spite of all opposition the Holstein cow is going on from victory to victory, and demonstrating that there is no other cow possessing such milk producing capacity, or giving milk of such vitality.

Gombault's Caustic Balsam

**The Worlds Greatest and Surest
Veterinary Remedy
HAS IMITATORS BUT NO COMPETITORS!**

SAFE, SPEEDY AND POSITIVE.
Supersedes All Caustery or Firing.
Invaluable as a CURE for

**FOUNDER,
WIND PUFFS,
THICKS,
DIPHTHERIA,
SKIN DISEASES,
RINGBONE,
PINK EYE,
SWEENEY,
BONY TUMORS,
LAMESS FROM
SPAVIN,
QUARTER CRACKS,
SCRATCHES,
POLL EVIL,
PARASITES.**

REMOVES
BRUNCHES or
BLEMISHES,
SPLINTS,
CAPPED HOCK,
STRAINED TENDONS.

SAFE FOR ANYONE TO USE.

We guarantee that one tablespoonful of Caustic Balsam will produce more actual results than a whole bottle of any liniment or spavin mixture ever made. Every bottle sold is warranted to give satisfaction. Write for testimonials showing what the most prominent horsemen say of it. Price, \$1.50 per bottle. Sold by druggists, or sent by express, charges paid, with full directions for its use.

**The Accepted Standard
VETERINARY REMEDY**

**Always Reliable.
Sure in Results.**



*Have genuine without the signature of
The Lawrence-Williams Co.
Sole Importers & Proprietors for the U.S. & CANADA. CLEVELAND, O.*

Finds Caustic Balsam to be Reliable.
I can say that I have for the past three years been a user of GOMBAULT'S CAUSTIC BALSAM, and have found it to be all that is claimed for it, and have in a great many instances recommended its use to others.—R. D. KIRK, Arlington, N.S.

'Canadian Appreciate Caustic Balsam'
I have been selling GOMBAULT'S CAUSTIC BALSAM for years, and it is giving my customers the best of satisfaction. I have also used it myself on different ailments with the best results. Too much cannot be said in its favor.—W. J. FRICK, Brantford, Ont.

**Sole Agents for the United States and Canada,
The Lawrence-Williams Co.
TORONTO, ONT. CLEVELAND, OHIO.**

The Secret of Pure Sweet Milk

You dairy-farmers can't afford to ship impure, germ-laden milk into the towns and cities. Our medical authorities are urging the Government to penalize offending dairymen very severely—don't you run any risks. If you pass all your milk through the Root Cooler-Aerator immediately it leaves the cow, you can guarantee it pure and sweet and get a bigger price for it per gallon. The



Root SANITARY MILK Cooler-Aerator

will keep the milk sweet for 48 hours because it kills the animal heat quickly and cools the milk to the same temperature as cold running water. The water is admitted at the bottom, flows to the second tube and so on until it reaches the top through the bottom of the milk. The water is kept perfectly cold all the time, and together they are deeply corrugated the milk is drawn down them slowly, reaching the second heavy copper, heavily coated with pure tin and guaranteed to stand heavy water pressure. Perfectly simple to operate—no complicated parts—a child can easily clean the whole machine in 15 minutes. Made in various sizes—will cool from 10 to 75 gallons an hour. Write us today for catalogue and prices—every dairyman should have a Root Cooler—It's a big money maker. Address:

W. A. Drummond & Co., 177 King St. East, Toronto

"It's so easy to clean."




MAKE YOUR OWN TILE!

One Man can make 300 to 600 Perfect Tile a day by hand and 1200 by power, on our **FARMERS' CEMENT TILE MACHINE**. At a cost of \$4 to \$6 per 1000. CAN YOU AFFORD TO BE WITHOUT IT? Machine makes 4, 5 and 6 inch tile, 1 1/2 inches long. Our waterproof FLEXIBLE CASING holds tile in perfect shape till set. NO PALLET.

TEN DAYS' FREE TRIAL. If after ten days' trial it does not meet with entire satisfaction return at our expense. Write today for illustrated catalogue.

**Farmers' Cement Tile Machine Co.
WALKERVILLE, ONTARIO**





Have You Seen The New "Galt" Shingle?

In justice to yourself, you should at least investigate "Galt" Steel Shingles before deciding on the roof for your new barn or the new roof for your old barn. Present wood Shingles are failures and are being discarded—to use them is a step backward. Don't put a fourth-class roof on your first-class barn. "Galt" Galvanized Steel Shingles in the roofing, now and for the future. Roof your new barn with "Galt" Steel Shingles and you won't have to apologise for it now or at any time in the future.

Listen, you won't have time two months hence to investigate this roofing question. And yet the roof of your barn is an important part of your real estate and should be selected carefully. Won't you drop us a card now for our booklet "ROOFING ECONOMY" telling all about "GALT" shingles? If you haven't paper and ink handy, tear out this advertisement, write your name on the line at bottom and mail to us. We'll know what you mean. You'll save a better chance than right now.

Name _____ Address _____
THE GALT ART METAL CO., Limited, GALT, ONT.
Watch for the advertisements with The Kids from Galt.

AYRSHIRE NEWS

Farm and Dairy is the recognized exponent of the Dairy interests of Canada. Breeders of Ayrshire Cattle and all members of the Canadian Ayrshire Breeders' Association are invited to send items of interest to Ayrshire breeders for publication in this column.

FIRST AYRSHIRES IMPORTED TO CANADA

W. F. Stephen, Huntington, Que. Few authentic records are available giving information as to who brought the Ayrshire cow first to Canadian soil. From records at my disposal I find that "in 1825 dairy cattle from Great Britain were brought to the lower St. Lawrence by settlers who came to those settlements." That these cattle were Ayrshires. The more too when we know that records show that in 1810 the French settlers brought some cattle with them from France. Thus the dairy cow of later years west of Quebec was a cross between those two breeds. That Ayrshire blood predominated cannot be gainsaid, as many of the native cows were largely white in color and had upturned horns and other characteristics peculiar to the Ayrshire.

During the 18th and 19th centuries the early part of the 19th century Scotch ships brought, for the use of the passengers, the voracious Ayrshire breed and landed them at Quebec or Montreal. These were mostly sold to farmers nearby these cities, and especially the latter city, the Ayrshire cow was the universal cow of the western part of Quebec until the early days of the last century. We read that Lord Dalhousie, Governor General in 1821 was an importer and breeder of Ayrshires. Other Governors following him continued to do so. It was not until some of the merchants of that time, so popular did these cattle become, by their good appearance and performance, that shipmasters were induced to bring several cows on each of their voyages, till the importation for breeding purposes became very frequent toward the middle of the last century. As it has since been regularly continued. We have Ayrshire records in Canadian papers which trace to the importations of John Dods and John McKenzie about 1860 and James Logan in 1855, all of Montreal. Both the Montreal Agricultural Society and the Beauharnois Agricultural Society imported some in 1863. In Ontario we find that J. B. Ewart, Dundas, was a large importer in 1845. There were also large numbers of importations to both Ontario and Quebec Provinces. After 1855 by the following: Mr. Irving, Montreal, in 1857; Mr. Outburt, Berthierville, 1857; Mr. Doves, Lechelle, 1858; Mr. Gilmore, Quebec, 1860; M. Brown, Longueuil, 1864; Mr. Riddle, Woodstock, 1865; J. A. Vireaux, Scarborough, 1867; Simon Beattie, Parkton, Ont., 1867. Other importations followed until the Ayrshire cow became most popular, and her popularity has advanced in the least and to-day she is widely admired in every province in our wide Dominion.

CHARACTERISTICS OF THE AYRSHIRE
The Ayrshire is a Scotch breed of dairy cattle, coming to us from the county of Ayr, Scotland, and has a distinct history for over 150 years. While they may not be popular in some sections they are not coming to the front, both in the dairy and show ring. They can hardly be improved in any way to conform to the views of some of our farm being particularly noticeable. The chief characteristics of the Ayrshire in appearance is fine shape, with clean cut features, brightness of eye, upturned horns, small ears, good heart and lung capacity, straight, compact or a sloe of their body, long, broad hips, large, slightly balanced udder, large well placed teats, well developed mammary gland and soft, well developed medium thickness, covered with a thick coating of fine hair, equal red and white brown and white, or verging to nearly all white.

Perhaps the Ayrshire has been called the "farmer's cow," owing to the fact that her milk is so readily available in every town or city market. As the Ayrshire breed becomes better known so it will become more appreciated. In temperament they are docile but alert. The Ayrshire is a very hardy and vigorous animal. This natural vigor combined with their active and other superior qualities particularly fit them for all climates and conditions.

Farm and Dairy readers should provide themselves with full information in regard to needs. A circular of descriptive matter to have is the need of a good number of addresses. Write to: Illustration King St. E. Toronto, Geo. Keith & Sons, Ltd. I will be glad on request if mention is made of Farm and Dairy.

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If you are wanting HOLSTEINS, any age, either sex, write: GORDON H. MANHARD, Manhard, Ont.

EVERGREEN FARM HOLSTEIN HERD
Has at its head Veltra Triumph (Imp.) 3771, whose dam gave 1 day's milk, and his sire's dam gave 104 lbs. His progeny all show his wonderful progenitor. We will supply you with what you want of either sex. All stock guaranteed as represented. Write: G. W. ANDERSON, ROSSMORE, ONT., Belleville District.

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We are now offering choice bred Holstein Bull Calves at rock-bottom prices, sired by our imported bull "Lone Oak Paul De Kol" and out of Grand Daughters of the great "Hengervold De Kol." We are also booking orders for young registered Tamworth pigs for May delivery of four season fresh, with prepays good and guaranteed safe arrival. Prices Right. Write: W. W. GEORGE, - CRAMPTON, ONT., Station and phone, Putnam, Ont.

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LAKEVIEW HOLSTEINS

Young bull born June 12th, 1910, offered. He is sired by Count Hengervold Fays De Kol, whose sire Peterio Hengervold Count De Kol, has 95 A.B.O. daughters and whose dam was 3rd of 5000 and 2nd of Homestead, 35.50 lbs. butter in 7 days. This young bull has had a dam and an extra good individual his own dam is running about the 15,000 lb. mark in all this period of lactation. E. F. OSLER, BRONTE Telephone.

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Sons of Pontiac Korymbis, sire of the world's record cow Pontiac Gladie De Kol 2nd, 37.30 lbs. butter in 7 days. He is the sire of seven daughters with 7 day records average 31.13 lbs. each, unequalled by the daughters of any other sire of the breed, living in Canada. His 3rd son, 2nd of 5000, 37.30 (world's record) giving this young sire's dam and her full sister 7 day records that average for the two 34.41 lbs. each.

We have in service, and can offer you a son of Sir Johanna Colantha Gladie, a son of the highest record daughter of Hengervold De Kol, 1st of 5000, 34.41 lbs. over 30 lbs. each. This young sire is a son of Colantha Johanna, 1st of 5000, 37.30 (world's record), has a 7 day record of 35.2 lbs., making his dam and sire's dam average 32.13 lbs. each, higher than that of any other sire of the breed. Let me send you breeding and sale prices on anything you wish to buy. Class HOLSTEINS; young sires our specialty. E. B. DOLLAR, BRIDGEVIEW, St. Lawrence Co., N.Y. Near Prescott, Ont.

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