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VOL. XXIX.

NUMBER 3.

FARM AND DAIRY

AND

RURAL HOME

Dairy and Cattle Division
Commissioner Dept. of Agriculture

PETERBORO, ONT.

JANUARY 20, 1910.



A PRIME SPECIMEN OF A DAIRY BREED THAT SHOULD BE REPRESENTED AT THE C. E. F., OTTAWA. Jerseys have well demonstrated themselves to be in the foremost ranks of dairy cattle as producers. Their champions claim that as producers of the most milk and butter for the least amount of food consumed, Jerseys stand at the top. The individual illustrated is one from the well-known Brampton herd, owned by B. H. Bull & Sons.

DEVOTED TO
BETTER FARMING AND
CANADIAN COUNTRY LIFE

W. O. D. A. Dairy Herd Competition

The directors of the Western Ontario Dairymen's Association again carried on a dairy herd competition in 1909, donating \$100.00 in cash prizes to patrons of cheese factories and groceries in Western Ontario. Ryzie Bros. again very kindly donated a silver and bronze medal. The competition covered the season from May 1 to October 31, 1909. No herd of fewer than eight cows was allowed to compete. The prize winners are as follows:

CLASS I. CHEESE FACTORY PATRONS.

1st. Jno. W. Cornish, Sprucedale Farm, Harrietsville, Ont. 50 acres in farm, 9 Holstein grade cows, 59,727 total pounds of milk, 6,636 pounds of milk per cow, \$550.96 total money, \$61.22 money per cow, 1,104.5 pounds of milk produced per acre.

2nd. Jno. Vantekle, Dunbovne, Ont. 100 acres in farm, 11 Holstein grade cows, 71,828 total pounds of milk, 6,529 pounds of milk per cow, \$683.56 total money, \$62.14 money per cow, 718.25 pounds milk produced per acre.

3rd. Mason Bros., The Maples, Tyrell, Ont. 280 acres in farm, 21 Holstein and Holstein grade cows, 132,127 total pounds of milk, 6,201.72 pounds of milk per cow, \$1,098.49 total money, \$52.31 money per cow, 471.8 pounds of milk produced per acre.

4th. A. E. Hulet, Evergreen Stock Farm, Norwich, Ont. 120 acres in farm, 8 pure bred Holstein cows, 48,325 total pounds of milk, 6,054.25 pounds of milk per cow, \$420.72 total money, \$54.15 money per cow, 402.7 pounds of milk produced per acre.

CLASS 2. CREAMERY PATRONS.

1st. R. M. Bowie, Maple Lane, Beachville, Ont. 50 acres in farm, 11 grade Holstein cows, 2,472.4 total pounds butter fat, 224.7 pounds of butter fat per cow, \$706.08 total money, \$64.19 money per cow, 49.4 pounds of butter fat produced per acre.

2nd. E. W. Lick, Beachville, Ont., 100 acres in farm, 13 Holstein grade cows, 2,546.2 total pounds butter fat, 195.8 pounds of butter fat per cow, \$696.50 total money, \$53.58 money per cow, 25.4 pounds of butter fat produced per acre.

3rd. Wm. Hutchison, Pleasant Grove, Princeton, Ont. 200 acres in farm, 21 Durham cows, 3,738 total pounds butter fat, 178 pounds of butter fat per cow, \$983.08 total money, \$46.81 money per cow, 18.7 pounds of butter fat produced per acre.

4th. Courtney Carr, Ingleisle, Beachville, Ont. 100 acres in farm, 20 Avshire and Jersey grade cows, 3,120.7 total pounds of butter fat, 156 pounds of butter fat per cow, \$809.95 total money, \$43.10 money per cow, 31.2 pounds of butter fat produced per acre.

5th. Geo. Bouchier, Echo Farm, Washington, Ont. 25 acres in farm, 9 Jersey grade cows, 1,184 total pounds of butter fat, 131.5 pounds of butter fat per cow, \$261.62 total money, \$29.06 money per cow, 47.3 pounds of butter fat produced per acre.

Albert Goettling, Pine Grove, Baden, Ont. 100 acres in farm, 10 Holstein and Jersey grade cows, 984 total pounds of butter fat, 98.4 pounds of butter fat per cow, \$213.48 total money, \$21.34 money per cow, 9.84 pounds of butter fat produced per acre.

Dairy Breeders' Annual Meetings

The annual meeting of the Canadian Ayrshire Breeders' Association will be held in the parlor of the Walker House, Toronto, Ont., on Wednesday, January 26, at 10 a. m.

The annual meeting of the Cana-

dian Jersey Cattle Club will be held in the Board Room of the Street Railway Company, corner King and Church streets, Toronto, on February 2, 1910, at 10 o'clock a. m.

The annual meeting of the Canadian Holstein-Friesian Association will be held in the Temple Building, Toronto, on Thursday, February 10, 1910, at 9 o'clock a. m.

Live Stock Annual Meetings

Annual meeting Ontario Horse Breeders' Association, Walker House, Toronto, February 1, 7.30 p. m.

Annual meeting Dominion Cattle Breeders' Association, Walker House, Toronto, February 2, 7.30 p. m.

Directors' meeting Dominion Swine Breeders' Association, Walker House, Toronto, February 3, 9.30 a. m.

Annual meeting Dominion swine Breeders' Association, Temple Building, Toronto, Room 1, 4th floor, February 3, 2 p. m.

Directors' meeting Dominion Sheep Breeders' Association, Walker House, Toronto, February 3, 7.30 p. m.

Annual meeting Dominion Sheep Breeders' Association, Temple Building, Toronto, Room 1, 4th floor, Feb. 4th, 9.30 p. m.

Annual meeting Ontario Sheep Breeders' Association, Temple Building, Room 1, 4th floor, February 4, p. m.

Arrangements have been made with the railroad companies for single railroad fare on the Standard Convention Certificate plan from points east of Port Arthur. A single ticket will be purchased to Toronto and a standard convention certificate procured from the railroad agent at the time the ticket is purchased. This certificate will require to be signed by the Secretary of the Live Stock Convention, and will then be valid by the joint agent of the railroad companies, who will be in attendance at the meetings a fee of 25 cents being charged by him for this service. This certificate when completed in this way will entitle the person named on the certificate to obtain a ticket to the starting point, free of charge, at the city or station ticket office, Toronto. Tickets will be good going January 27 to February 4, and will be good to return up to and including February 8.

Items of Interest

The 6th Annual Convention of the Canadian Seed Growers' Association will be held in Ottawa Feb. 10th and 11th, 1910.

It is expected that the prize winners in the special good Farms Competition of the D. Derbyshire & Co., Ont., will be announced next week.

The second annual Ontario Corn Exhibition will be held under the management of the Corn Growers' Association. Instead of ten classes and \$100 in premiums as in 1909, there are 73 separate classes and over \$800 in premiums for 1910.

Sheep produce the best meat product that we have. It is acknowledged by all to be the most healthy and nourishing of any food, and the farmer who keeps a few sheep is well supplied during the fall and winter months with this food at a very small cost. Geo. L. Telfer, Brant Co., Ont.

Large flocks of crows are doing damage to the corn fields in Kent Co., Ont. In one small district, the farmers have lost fully 300 or 400 bushels of corn already and the trouble is getting worse. Much of the crop of the season is still standing in shocks. Since the snow has come, the only way that the crows can live is to steal corn. Mr. C. W. Nash, Director of the Biological Department of Ontario has visited the county to investigate the matter of fighting the crows.

CONSIDER ALL THE POINTS

Why is it that the manufacturers of some makes of separators have so much to say about some one good point about their machines? It is because this is the only strong feature that their particular machine possesses. A machine that has **One** good point and a number of weak points is no better than its weakest feature. It cannot stand the test of long, hard use. When you want a machine that is strong in every point, buy a

SIMPLEX

Here are a few reasons why you should buy this make of separator:

1. It is simple in construction. Nothing to get out of order.
2. It is efficient. A "Simplex" with a small bowl will do the work of other machines with a larger, heavier bowl.
3. It is easy to turn, as it does not require the high speed of other machines.
4. It is fitted with the link-blade separating device. This explains why it is more efficient than other makes, and separates at a lower speed.
5. It is easy to take apart and wash. Ask your wife if this counts for anything.
6. It has a self-balancing bowl. Will always run smooth and true.
7. It gives satisfaction. Not for a short time when the machine is new, but always.

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Only \$1.00
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FOR WEEK ENDING JANUARY 20, 1910.

No. 3

ROUGH FORAGE FOR THE DAIRY COW*

J. H. Cristale, Agriculturist, C. E. F., Ottawa.

How and What to Grow and How to Use It—Specific Information About Crops of Vital Importance to Every Dairyman.

OUR keenest rivals in dairying are Holland and Denmark. These two small corners of Europe are blessed with soil and climatic conditions not better than maintain in Eastern Ontario. When it comes to buying feed the Dane and Dutchman must come to us, pay our prices and then transport 4000 or 5000 miles. We, Canadians, are usually satisfied with 20 to 25 cents to the 100 acres. The Danish and Dutch farmer wants from 75 to 100 head. They feed all these much letter than we do our few. They grow all the roughage. We naturally ask how they do it.

The answer is simple. In the first place these men cultivate their farms. We usually make but a feeble pretence therat. In the second place they grow the right crops and grow them well. We grow similar crops but handle them badly. The crops these men can grow most advantageously we can produce in even greater abundance and with greater certainty. Besides, we can grow cheaply, easily, a crop that never fails, corn.

We could grow clovers, grasses and all other forage crops as well as any Dane or Dutchman, but we don't. We should. Until we do we are not going to make the mark we might in milk production.

SADLY LACKING IN CULTIVATION.

So much for crops. Of cultivation I may not speak. One would think that we would all know enough to do that well. Well, we don't. We are sadly lacking. Every Canadian farmer interested in dairying should for patriotic reasons, if for none other, try to beat these Danes and Dutch at their own game. This would be one case at least where patriotism would pay dividends in dollars and cents. Let us consider the matter of producing better forage and more of it on our Eastern Ontario farms.

In the first place, we must do our work better. Every extra hour's work spent upon the field pays high wages. This is true of course up to a certain point. I have never yet been able to determine just where that point was. It has always seemed to me that I might profitably have gone on a little longer. I believe the last extra hours of the most profitable hours spent on the field.

AN EXTRAVAGANT METHOD OF FEEDING.

As probably the most important crop for the Eastern Ontario dairymen stands pasture. Pasture grass at the right stage and in abundance has no superior as a dairy ration. But at best, it is expensive, while generally it is a ruinously extravagant method of feeding. However, we all use it more or less and much may be said in its favor, so what we cannot stop let us try to mend. Leaving rough lands or permanent pastures aside, not one farmer in a hundred in my experience makes the least effort at special preparation for pasture. The results are quite up to the pro-

*An address given before the recent E. O. D. A. convention at Belleville.

paration, the cows starve, and the farmers blame the weather.

Permanent pastures on arable land are not practicable, much less profitable. Hence a combination of meadow and pasture preparation seems really the thing. Good meadows and rich pastures are not spontaneous. Besides, the good meadow does not necessarily lapse into the good pasture in a year or two.

A great variety of grasses might be used for either hay or pasture. I have noticed that the more complicated is any plan offered for improvement the fewer farmers pay any attention to it. I personally have the same disinclination to follow any scheme that looks complicated, and I don't do it if anything simpler can be devised. Let me give you my plan for securing a good meadow, and later a first class pasture.

HOW TO SECURE A GOOD MEADOW.

Prepare the land. Begin to prepare the land the year before seeding down. That is, manure

Should be in Every Home

I am pleased with Farm and Dairy. It is improving every year. Its editorials are fearless and to the point. Farm and Dairy is a journal that should be in every farmer's home.—A. Hector Cutten, Ingleswood Farm, Colchester Co., N.B.

and grow a hoed crop if possible. If a hoed crop is out of the question and manure is scarce, then plow from sod with a shallow furrow in late July or early August. Work well with roller, disc harrow and cultivator. Do not hesitate to work it often. Do not forget to work it well. Do not fail to work it at frequent intervals all autumn. Replow with a slightly deeper furrow, or better still, ridge up with double mould board plow in October after sod is well broken down or rotted. Leave thus all winter.

Prepare for seeding by levelling with spring tooth, stiff tooth or disk harrow. Smooth-harrow and roll. Sow two bushels oats, one and a half bushels barley or one and a quarter bushels wheat per acre. Sow grass and clover seed at the same time or the same day. If land is very dry harrow grass seed in with very light harrow and roll. If land is moderately dry roll only after seeding. If land is moderately moist neither roll nor harrow at the time of seeding but leave till grain covers the ground, then roll in fairly dry time.

DON'T FORGET.

A very important consideration is not to forget to sow the grass and clover seed. Very few of us forget entirely. The great majority of us forget about half or more and very many of us forget very nearly the whole thing. It costs quite a bit

to remember in this case. I have a suspicion that this is why we so frequently and so easily forget. Forgetting is really more expensive if we would only stop to think or watch results.

The common grasses and clovers are the best to sow. Timothy, bromes grass, cocks foot or orchard grass, rye grass, mammoth clover, red western clover, alsike clover and alfalfa are all suitable. The soil, the field and the purpose in view should influence the choice. Thus little use sowing cocks foot on light soil, no use trying alfalfa on badly drained land, and mammoth clover is rather unsatisfactory for late summer and fall pasturing. For average conditions, timothy, red western and alsike clovers will give best results.

Sow enough seed. Sow 12 to 20 lbs. timothy, three to five lbs. alsike and eight to 12 lbs. red clover an acre. If you hesitate about sowing so much sow a little more. If your soil is fairly rich and well drained add a few pounds of alfalfa per acre, say five or six pounds. A couple of pounds of mammoth in place of a much of red clover might be advantageous. In heavy clay soil four or five pounds orchard grass would do good.

THE MEANS OF SOWING.

The average seed drill grass seeding attachment won't sow this much seed. Sow it by hand or by means of special grass seeder. Divide the grass seed mixture into two equal parts. Sow each part to entirely cover the field. Sow the first half of the seed lengthwise, then, sow the second half crosswise, the field. The first half might be sown from the grass seed attachment on the grain drill, the second half by hand across the seeder rows.

The expense may seem prohibitive and does, I know, usually deter from this style of seeding. Such a seeding, leaving out the alfalfa, might cost from \$2 to \$3 an acre. The returns will be from \$10 to \$20 an acre in hay or in pasture each year better than from the average seeding. I have tried both ways for many years. I know. Try it. Then, when you have the pasture, use it wisely. Pasture down fairly well but not close. Give it a chance, either by having enough pasture for the whole herd, or divide the herd, or else divide their attention by giving the pasture a few days off now and again as needed.

So long as we continue to practice summer dairying almost exclusively as we do at present in Eastern Ontario, methods of summer feeding must be more important than methods of winter feeding. Good pastures are of value, but even the very best of pastures run short in times of drought. Then how shall we supplement? First and best, by the summer silo. Cows always welcome good ensilage. Or, next best, by various soiling crops.

AN ECONOMICAL FORAGE CROP.

The summer silo means corn for ensilage. Corn for forage is easily the most dependable, the most profitable and the most economical forage crop in Eastern Ontario. Growing much corn means good farming. Good farmers are sure to grow corn abundantly.

Growing corn well means a number of things. Foremost, a well drained field is necessary. This field is likely to give best results if it was in

clover hay or pasture the previous year. An application of barnyard manure is almost an essential. It should be so applied as to be very near the surface when the corn is planted. The corn should be planted only when the land is in perfect tith and warm.

To get best results, right varieties properly sown is the word. Longfellow, White Cap Yellow Dent and Leaming may be safely counted on for all over Eastern Ontario. About equal areas of each will give good results. Sow thinly in rows 42 to 48 inches apart or in hills 42 inches apart. Keep well cultivated and free from weeds from start to finish. Ensilage when in dough stage. Feed when necessary.

To feed add cut straw and a bite of long hay. Suitable meal to feed along with it would be bran, oil-cake meal, corn and barley equal parts. Cotton-seed meal, gluten meal, pea meal or distillers' grains might replace the oil cake meal.

SOILING CROPS.

After corn comes the soiling crops. As king of soiling crops where it can be grown stands alfalfa. If your corn field was kept clean, is in good heart and lies gently sloping or is fairly rolling sow the alfalfa there. Sow a small area to begin with. Sow a goodly amount of seed, 20 to 25 pounds per acre. Inoculate the soil or the seed if possible. Every ton of green feed from the alfalfa field is worth half a ton of milk, every ton of hay is worth a ton of bran or thereabout. As an inspiration to milk production on the part of the cow consuming it, it is a marvel. Feed some dry forage along with the green alfalfa.

Clovers, mixed or separate, in value, follow alfalfa fairly closely and are somewhat more easily grown on the average farm. They, like alfalfa, only in a lesser degree, inspire the cow to renewed effort at the pail. Feed some dry forage along with clover just as with ensilage and alfalfa. As make-shifts and good old standbys, come our friend the mixed crops. Peas and oats; oats and vetches; peas, oats and vetches; peas, oats and barley; peas, oats, vetches and millet; peas, oats, vetches and Hungarian grass; and peas, oats, vetches, millet and sorghum, to say nothing of innumerable other possible and commendable combinations. Their great value lies in their certainty. Sow thickly, three to four bushels an acre. Feed when just beyond the milk stage. Too early means a loss of food value, too late means incomplete consumption. As an early ready soiling crop fall rye is of value. Another advantage is it does well on lands so poor other crops will scarcely grow. Sow one bushel per acre in early September. Feed moderately for fear of flavor.

WINTER ROUGHAGE.

As roughage for winter use, corn ensilage stands first. The addition of roots makes matters still better. For milk production, everything considered, mangels are probably the best.

To grow mangels necessitates suitable soil, well fertilized and well tilled. Plow in August with shallow furrow, work at intervals, manure, sow early with shallow furrow and subsoil look. Sow early, as early as ever you can. Sow on the flat or on ridges 30 inches apart. If on ridges pack well before seeding. Sow plenty of seed, seven to nine pounds an acre. Mammoth, Long Red or Gate Post varieties are best. Keep clean, cultivate frequently. Harvest before heavy frost. Feed along with ensilage or alone if preferred. Best if fed along with corn ensilage.

As to clover hay, alfalfa and mixed crops for hay for winter feeding, remarks on these crops for soiling will apply.

There remains millet and Hungarian grass to complete the list of the more common and the more advantageous crops for winter forage. These are of value first because in case of adverse weather conditions preventing other crops being grown they may be sown even as late as early July and still give satisfactory results. The soil must be worked well before seeding. It should

be very mellow, very fine and yet very firm under foot. Sow 80 to 40 pounds an acre. Roll the land after seeding. Cut when in blossom or shortly after. As a feed for milk production it ranks very high, being about equal to clover ton for ton.

A Combined Ice House and Refrigerator

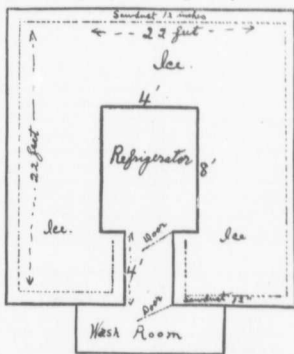
John Fitzer, Supt. Macdonald College Farm.

An ice house and refrigerator combined is a necessity on the farm. At this season of the year farmers usually have time to think of plans to letter their condition. The ice house is one that should be given careful consideration. It is not necessary to have an expensive building for the purpose. Most farmers have sufficient material on the farm with which to build an ice house. Small poles may be used for all of the inside work. The outside would be better if sheeted with lumber. The roof should be shingled.

In selecting the site for the ice house it is well to have it as near the dwelling as possible. This naturally will be convenient to the well where fresh water can be secured for the tank or for washing pails.

DETAILS OF CONSTRUCTION.

For the average farmer I would advise a building 22 feet square, as the larger body of ice the



A Refrigerator and Ice House Combined

better will be the results. Drainage is first to be considered. This is to keep the bottom of the ice house thoroughly dry, and to take the surplus water from the tank. It would be best to put in a stone or a concrete foundation, and to have it high enough so that the wood will not come in contact with the earth. Pine, hemlock or spruce may be used for the sills, studding and rafters, and even for the outside sheathing, although pine may be found best for the outside. A height of 12 feet is usually sufficient. It is well to have the door for filling, if possible, in a convenient place, so that the ice can be hoisted the full 12 feet.

The refrigerator is to be built directly in the center of the building, as shown in the diagram, and be four feet wide, eight feet long and seven feet high. The frame of this division should be made very strong, so as to carry tons of ice on top of it. The ice will be placed around the sides and at one end of this compartment as well. The other end is for the door. The refrigerator should be sheathed on the outside only, and have small openings at the top and bottom of both sides to admit of the cool air from the ice.

The doors of the refrigerator should be of double material. Have a space of four feet from the outside to the inside one. A large porch over the outside refrigerator door would be a benefit, also a convenience for washing pails. Should the doors of the refrigerator open inside of another building the porch will not be necessary.

Ventilation, both in the refrigerator and in the ice house is a necessity. The ventilator for the refrigerator should be at least 8 x 8 inches inside, and be made double, allowing 2 inches of air space between each board, and be arranged with a good slide so as to shut off the air or draught if necessary. The ventilator should extend direct through the top of the refrigerator and through the ice house roof, and have a suitable cap for a covering.

FILLING THE ICE HOUSE.

When ready to fill the ice house, cover the floor with not less than 12 inches of sawdust. Pack the ice directly on the sawdust. Leave a space of 12 inches between the walls and the ice. Plug the cakes as close together as possible, and fill all spaces between the blocks with crushed ice. Fill in the 12 inch space between the ice and the walls with dry clean sawdust. Be careful that the sawdust does not contain any snow or ice chips. Cover the ice on the top with sawdust to a depth of two feet at least. This will leave sufficient to fill in the sides in the spring when the sawdust already in has settled.

For ventilation in the ice compartment, I would advise a shaft 18 x 18 inches square, fitted with a slide, and to extend well above the center of the roof, and also an opening at each end of the gable, fitted with slats, to admit the air. This should create a thorough circulation of air and thus prevent accumulation of heat under the roof.

A milk cooling box may be made 3 x 4 feet and three feet deep, to be made water tight; this box to be placed in one end of the refrigerator where drainage can be secured.

Creamery Patrons Losing Money

Fred Dean, Creamery Instructor, Guelph.

There are a few patrons in districts under my instruction who put in a supply of ice each year for cooling their cream in summer. I have always found their cream to be in excellent condition. On the other hand, a large number of patrons, to their loss, seem to think that so long as they can get the cream off their hands with as little trouble as possible, it is all that is necessary.

We are living in hopes that the time will soon come when patrons will awaken and take the best care possible of their cream and then look to the maker or proprietor to pay them as much as can be paid by any other creamery. Then there will not be such a wide variation in the prices paid for fat. We have found during the past season that for one month, the price paid the patrons for their butter fat varied from 17 to 25 cents a pound. Someone was certainly losing a lot of money. Who was it? Who was responsible?

Sheep at Agricultural College

Prof. H. S. Arkell, Macdonald College, Que.

Mr. Harding's article in Farm and Dairy, January 13, brings up a point in connection with our live stock work which is well worth considering. Personally, I should much prefer to handle a single breed of sheep on the College farm than three, as we are now attempting to do. The farmers of Quebec do not evidence much interest in sheep husbandry though they might well do so with advantage to themselves. It is very certain that the maintenance of one good flock would stimulate more interest than the mixing together of a few representatives of two or three different breeds. The College would further be able to reach a much higher standard of excellence in the flock than could possibly be attained under present conditions. The purchase of a small number of ewe or wether lambs of the other breeds, should represent no great loss if the breeders were not too exorbitant in their prices and should furnish excellent material for work in the various classes. If the members of the Sheep Breeders' Association should take it upon themselves

to recommend this policy, the Department here would be very glad to adopt it.

I take it that Mr. Harding recognizes the value of having one breeding flock maintained at a College, though he does not explicitly say so. Breeding work is the one thing that gives stimulus to the live stock industry whether among farmers or students, and the College would suffer a distinct loss if such were given up altogether. In my opinion the policy would not prove satisfactory unless undertaken in the way suggested. It might be an advantage for each of the associations to choose the breeder who would furnish the sheep of its own particular breed for the year. In this way the difficulty of selection would be lessened and any unpleasantness avoided if the College might be charged with giving a favor too often in one direction. It should be understood that a certain sum was available for the purpose and a fixed charge could be arranged for all occasions.

Live Cattle Trade Must be Continued

Dr. J. G. Rutherford, Veterinary Director General and Live Stock Commissioner.

It must not be forgotten that there is a constant paying demand in Britain for home killed dressed beef. This demand is certain to continue and as it can never, under existing conditions, be fully met by the British feeder, it is likely to remain profitable to those countries which, owing to their freedom from disease, are permitted to land live cattle in Great Britain, and are at the same time so situated geographically as to be able to transport such cattle at a reasonable cost and with not too great a risk of loss.

In these two respects Canada occupies, and will probably continue to occupy, a most favorable position. Many countries which, under other circumstances, would be our keenest competitors, have been compelled, for one reason or another, to abandon their export trade in live stock for that in chilled or frozen meat. As they are year by year improving their facilities for the carrying on of this trade, the supply of dead meat in the British markets, is likely, in the near future, to exceed the demand. In the United States, the only country at present in a position to compete with Canada in the live cattle trade, the home consumption of meat is increasing so rapidly, that the surplus for export is likely soon to be a negligible quantity.

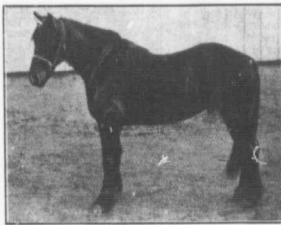
It would thus appear that while the establishment of a chilled meat trade is necessary and advisable, it would be a short-sighted policy to contemplate the complete abandonment of our present export business in live stock. It should therefore, in my opinion, be not only continued, but fostered and encouraged, by making the conditions surrounding it as nearly perfect as possible. This can best be done by the maintenance of strict government supervision, involving full control of the methods adopted in transportation and the establishment of some comprehensive system of inspection, which, in addition to the present examination for health, would include the rejection of any animal of inferior quality or condition.

It is somewhat doubtful, whether it would ever be possible, in the face of the keen competition of an honestly conducted dead meat trade, to profitably ship grass fed cattle on the hoof from western Canada to the British market. There is, however, no question that, given better transportation facilities than at present exist, a profitable business could be done in grain fed western steers, as well as in the stall-finished cattle from Ontario and other eastern provinces.

In any event it is well to have two strings to one's bow and as each line of trade would steady and balance the other, it is to be hoped that, in the near future, we shall see both firmly established on a solid and paying basis.

Fleshing Horses for Market

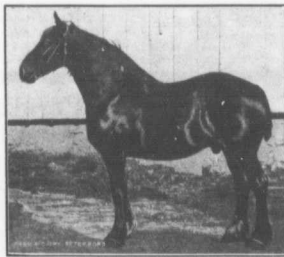
Since every 100 pounds over 1,600 pounds in a draught horse means an additional value of from \$25 to \$50, or from 25 cents to 50 cents a pound, it is evident that it pays to fit heavy horses—ever better than to feed hogs or cattle. That the farmer should never sell a draught horse while thin in flesh, was pointed out by Mr. T. Baker,



Before Feeding

Durham County, Ont., in Farm and Dairy, January 6th. The marked difference between the fitted and the unfitted horse is well shown in the two illustrations on this page, which picture the same horse before and after fitting.

The fleshing of horses for market is a subject that has received but little consideration from investigators. Recently, however, experiments have been conducted at the Illinois Experiment Station, by R. C. Obrecht, Assistant Chief in Horse Husbandry, on the relative efficiency of different rations for fleshing horses for market. The main object of these experiments was to secure data for a comparison of rations for feeding horses, as per the following: Corn and oil meal, corn, bran and oil meal; corn, oats, bran, and oil meal; when fed in connection with clover hay, or with timothy hay, with respect to the following points: 1. The rapidity and extent of gains. 2. The economy of gains as measured by feed consumed. 3. The nature of the gains as affecting conformation and ultimate-



After Feeding

Two illustrations of the same horse which go to show that it pays to fit horses before marketing them. The adjoining article gives the results of some experiments on fleshing horses for market.

ly the commercial value. 4. The relative profit to the feeder after considering all items of expense and income. Another object was to secure data upon the influence of exercise on horses in taking on flesh together with methods of stabling.

Observations were also made in regard to the individuality of the horses used in the different lots in order to determine, if possible, the type and conformation best suited for feeding purposes; those making the largest gains as well as finishing into the most desirable market animals. The conclusions arrived at from these experiments are:

1. A mixed grain ration of corn and oats, when fed with clover hay, is more efficient than a single

grain ration of corn for producing large gains in an 84 day feeding period.

2. While a ration of corn, oats and clover hay is more expensive with prices of feeds as stated, than one of corn and clover hay, the gains are such as to make its use more economical.

3. Clover hay when fed with a mixed grain ration of corn and oats is more efficient for producing gains than timothy hay. In this test clover hay produced 58 per cent. more gains than timothy.

4. A ration of corn, oats and timothy is not satisfactory for producing finish in fleshing horses for market, but may be materially improved by the addition of oil meal.

5. One experiment showed but little difference in the efficiency of a ration of corn and oats where the oats fed equalled only one fourth the amount of corn and where the oats and corn were fed in equal quantities by weight, with clover hay as roughage in each ration.

6. A ration of one-fourth oats and three-fourths corn proved more economical than one of half oats and half corn.

7. A ration of corn and bran fed in proportions of one part bran to four parts corn by weight is superior to an all-corn ration for producing gains when fed in conjunction with clover hay.

8. This test seemed to indicate that there is danger of feeding too much bran for best results when clover hay furnishes the roughage part of the ration. The bran and clover combined produced a too laxative condition.

9. A ration with a nutritive ratio of 1:10 is too wide for best results in fleshing horses. In these tests the narrower the nutritive ratio the larger the gains. Best results were secured with a nutritive ratio of 1:8.

10. Exercise has a retarding effect upon taking on of flesh. In this test the horses receiving no exercise made 24 per cent. more gains than those having a daily walk of 2.8 miles.

11. While box stalls are safer than single stalls for stabling horses, they are also more expensive, and do not offer merits not possessed by single stalls so far as they may influence the horse in taking on flesh. The horses stabled in single stalls made 16 pounds, or 8 per cent. more gains in 84 days than those in box stalls.

12. Thin horses of some market classes will not return as large a profit in feeding as those of other classes. The kind of horses it will pay best to feed depends partially upon the season of the year when marketed. All heavy horses will pay better than light horses, and good and choice animals letter than those of the lower grades.

Weed Seed in Alfalfa Seed

Geo. Martin, Waterloo Co., Ont.

Two years ago we sowed four acres of good clean land to alfalfa clover. We got an excellent catch and with it came up a great variety of weeds. The weeds were so thick and tall that we had to cut the oats to keep the land from being re-seeded with a larger quantity of weed seeds.

Last spring we sowed five acres more to alfalfa in the meantime having changed our seedsmen, hoping to get cleaner seed, but with no better results. Here again the land was absolutely clean from weeds previous to sowing the alfalfa; the oats sown in both cases were what we had grown on the farm for the two previous years and were also clean.

It strikes me that there is something seriously wrong with the seed business of our county. There was pulled out of the last year's sowing of alfalfa an armful of different varieties of weeds. I am sure that passers-by would say our farming is not of the best and yet we did our part as well as could be done.

We all like Farm and Dairy and would not like to lose a single copy.—Geo. Brett, Simcoe Co., Ont.

The Dairymen's Convention at St. Thomas

There were a number of features of outstanding interest connected with the annual convention of the Dairymen's Association of Western Ontario, held last week in St. Thomas.

Mr. G. A. Putnam of Toronto, the director of dairy instruction warned the proprietors of cheese factories and creameries as well as cheese and butter makers that the government intends to require them to make certain needed improvements. As a result of legislation enacted at the last

session of the Ontario Legislature, the proprietors of factories now have to secure certificates from the government and after this year cheese and butter makers will either have to hold permits from the department of Agriculture, or certificates showing them to be competent to be in charge of a factory. Mr. Putnam announced that while the Department does not intend to be unduly severe in the interpretation of the law, it purposes drawing the lines a little more tightly than they have been in the past with the object of still further improving the standards of dairy practice in the province. The Department has found that the legislation calling for Letter sanitary conditions in the factory and on the farm, which was enacted a few years ago, is being appreciated and that any resentment against it which existed at first, has practically disappeared. This legislation has been productive of much good. That the dairymen of Ontario are taking a greater interest in dairying is shown by the fact that during the past year they erected over 1,500 new silos.

THE WHEY BUTTER QUESTION
Mr. Geo. H. Barr, Chief of the Dairy Division, Ottawa, in the course of his excellent address on the care of milk, which is being published in full in Farm and Dairy, pointed out at the practice of making whey butter. He stated that if factories would take greater care in the handling of milk for the manufacture of cheese there would not be the overrun which has resulted in the manufacture of whey butter. Factories which have installed expensive machinery for this purpose are trying to save losses of butter fat in the whey which need never have taken place had the milk been properly handled in the first place. This stand was born out by Chief Instructor G. G. Publow of Kingston at the Belleville Convention when he said that the manufacture of whey butter simply puts a premium on carelessness in the manufacture of cheese by the cheese maker.

LEGISLATION EXPECTED
Mr. F. G. MacDiarmid, M.L.A., a member of the Milk Commission appointed last year by the Ontario government, warned the dairymen, as Mr. J. R. Dargavel, another member of the Commission had done at Belleville, that as a result of the invest-

tigations made by the commission in both Canada and the United States, some rather advanced legislation may be expected to follow the report of the Commission after it is presented to the House. The report is likely to deal with both the question of tuberculosis as well as with the need for greater care in the handling of milk on the farm.

PRIZE FARMS COMPETITION
One of the features of the convention was the presentation of the prizes to the three dairy farmers who won first, second and third places in District No. 4 in the Dairy Farms Competition conducted last year by Farm and Dairy. The winners were Messrs. J. W. Richardson, of Caledonia; P. A. Penhale of St. Thomas and W. H. Harding of Thorndale, all of whom spoke. Mr. Richardson described his place at one time after his father started work on their farm they were several thousand dollars in debt. Dairying had practically ruined the reputation of their farm. All three competitors stated that the growing of alfalfa had materially increased the profits of the farms. Mr. Richardson did not consider that Prof. Deane was correct in his contention that farmers do not make more than a living selling milk at \$1.90 a 100 lbs. The prizes were presented by Dairy Commissioner J. A. Ruddick.

During the convention excellent addresses were delivered by Messrs. N. P. Hall of Michigan; by C. G. James of Toronto; by R. Dargavel of Guelph; by Prof. R. Harcourt of Guelph on "Cattle Feeds;" by C. F. Whitley of Ottawa, on "What Dairy Records Suggest;" by J. B. Edwards of Guelph, on "A Study of Yeasts Found in Whey;" by Chief Instructor G. G. Publow, on "Suggestions for Improvement;" by George H. Barr, on "Further Experiments in the Care of Milk;" and by Dairy Commissioner J. A. Ruddick. These addresses for the most part are either published in full in this issue or will be in following issues.

OFFICERS ELECTED

The following officers were elected: Pres. Jno. H. Scott, Exeter; 1st vice-pres., Wm. Waddell, Kerwood; 2nd vice-pres., D. A. Dempsey, Stratford; 3rd vice-pres., S. R. Wallace, Burgessville; sec.-treas. Frank Hens, London; directors W. S. Stocks, Britton; J. B. Smith, Alton; Geo. M. McKenzie, Ingersoll; S. E. Facey, Harrisville; representative to Western Fair, London, I. W. Steinhoff, Stratford; representative to Toronto Exhibition, Robt. Johnson, Woodstock.

FINANCIAL STATEMENT

Cash from 1908.....	\$ 867.84
Members' fees.....	334.00
Gov't grant.....	1666.00
Money received from prosecutions.....	912.50
Money borrowed.....	530.00
Sale of dairy exhibits.....	1596.89
Advertising in program.....	120.00
	\$6087.23

EXPENDITURES.

Cash paid for prizes cheese and butter.....	\$ 360.00
Cash paid for prizes dairy herd.....	170.00
Stenographer's salary.....	140.00
Directors fees and expenses.....	197.25
Postage, stationery, printing.....	313.25
Judges and lecturers' expenses.....	245.35
Prosecutor's salary and expenses.....	617.81
Periodicals for members.....	214.41
Cost of reporting.....	75.00
Paid loan and interest.....	603.12
Purchase of dairy exhibit.....	1616.01
Office rent, furniture, etc.....	237.91
Half of fines paid factories.....	456.25
Sundries.....	65.00
Balance.....	316.33
	\$6087.23

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The Feeders' Corner

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

Feeds for Fattening Hogs

Extensive experiments in feeding hogs have been carried on by the Ohio experimental station. A summary of the results of these experiments is as follows:

Corn alone at prices approximating those that now prevail, is not a profitable ration to use in pork production.

Feeds richer in protein and mineral constituents should be supplied to supplement corn in a way to provide for the growth of muscle and bone as well as for the production of fat.

The use of supplement feeds of the character mentioned in the preceding paragraph has given good results for feeding in ordinary dry lots, in cattle feed-lots and on pasture.

Skim milk, tankage, middlings and pasture grass all are valuable feeds for use in connection with corn. The supplemental feed to use will depend very largely upon market prices

meal, clover, alfalfa and various other feeds may often be fed with corn to good advantage. Whatever feeds are used in pork production, the feeder should pay close attention to market prices of the various feeds that may be had, and use the most economical, efficient feeds that are available.

Our Veterinary Adviser

RINGBONE.—Mare has a ringbone on hind pastern. It has been fired and blistered, but she is still lame. 2. I am told that coal oil applied in small quantities will cure it. Is that so?—W. R. L., Frontenac Co., Ont.

1. In some cases a second firing will effect a cure. If this fails, all that can be done is to get a veterinarian to perform neurotomy, which consists in removing the nerve supply of the foot. This operation usually gives good results in case of ringbone.

2. I have never known a cure to take place as a result of this treatment, but it will not cost much to experiment.

ABORTION.—My cows are turned out every day for water. One heifer aborted. Would it be wise to breed her again?

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We have a good opening for an energetic young man—a practical farmer with a scientific knowledge of feeds—to travel for us among stockmen throughout Canada, east of Toronto, in the interests of our feeding stuffs. One who has had training at an Agricultural College preferred. A speaking knowledge of French an advantage. Immediate engagement. Permanent position for the right man. Apply to:

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ing in the case to indicate infectious abortion. Systematic improvement of the dairy herd cannot be made until records from the starting point.—C. F. Whitley, in charge of Records, Ottawa, Ont.

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Our Peerless Fence made from all No. 9 English wire, is equal to all emergencies. It has more than double the strength required. On account of the superior galvanizing on this wire, it should last more than twice as long as ordinary galvanized wire. It stands the salt,

foggy climate of England for many years, where ordinary galvanized wire rusts in as many months.

The Peerless Lock at each intersection of the crossbars is the most perfect device for the purpose yet produced.

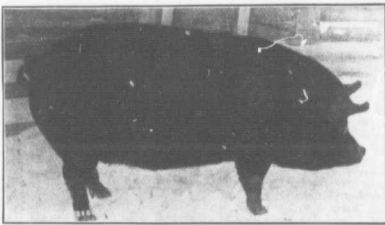
This can't-slip lock grips the two wires firmly, yet permits the fence to adjust itself to any surface.

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A Winter Fair Prize Winning Berkshire Sow

The Berkshire illustrated, owned by J. Lawrence, Oxford Co., Ont., in class for sow under nine months last year won first prize. She weighs 361 lbs.

In the comparison of light and heavy grain rations for dry lot feeding, no marked advantage of either was evident so far as economy of gains was concerned. As would be expected, the heavy grain ration produced more rapid gains than did the light grain rations.

Marked economy in cost of gains resulted from the use of a light grain ration in place of a heavy grain ration for swine on pasture. If a cheaper feed may be used in place of the grain, it is often possible to lessen very materially the cost of pork production by feeding a light grain ration. If concentrates are to be used exclusively, the use of a heavy grain ration would be advisable, unless the aim of the feeder is to hold the stock in a low or moderate condition in order to secure cheaper feeds for fattening later.

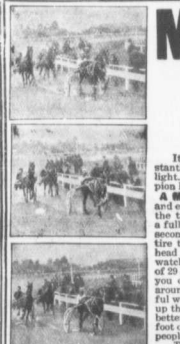
It is important for feeders to understand market conditions as well as efficiency of feeds. The rations that produce the most rapid gains are not necessarily the most profitable feeds to use. On the other hand, rations that produce cheap gains may produce these gains so slowly that the profits will be very small.

Either home grown or commercial supplemental feeds may be used in connection with corn. The special advantage and feeders should know to use whichever will be most profitable. It will often pay to use special farm grown feeds. On the other hand it is often true that the use of feeds grown on the farm will prove more profitable than the use of commercial feeds.

Feeds often grown, those discussed in this bulletin have given good results when used to supplement corn. Buttermilk, meat meal, linseed oil-

How can I prevent other cows aborting?—D. B. Essex Co., Ont.

The heifer slipped and fell or met with an accident in some way and this caused her to abort. It is quite probable that she will breed all right next time. Avoid all accidents if possible, and it is not probable you will have further trouble. There is nothing



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HORTICULTURE

Niagara Fruit Growers Meet

At the annual meeting of the Niagara Peninsula Fruit Growers Association held at St. Catharines last week, much important business was transacted. A resolution was adopted setting forth that "in view of the rapidly increasing output of tender fruits from the Niagara peninsula, and from the fact that under the present methods and conditions of distribution of these fruits is not satisfactorily nor systematically conducted, a situation which results in dissatisfaction to the consumer and often in loss and expense to the shipper, we would urge that a committee of prominent growers, selected from the members of this association, located at different shipping points in the district, be appointed to take the matter under consideration, to secure data, and, if possible, to formulate a plan whereby the present unsatisfactory conditions may be in part remedied, at least to a large degree remedied."

Another resolution was passed as follows: "In view of the amalgamation and merging of the various canning factories into one or more large holding companies, it is in the interests of the fruit and vegetable growers that a committee of growers be appointed by this association, who shall have authority and whose duty shall be to treat with these companies with the object of arriving at fair and equitable uniform prices for the various fruits and vegetables produced in this district, and used by the canning factories in their business."

The special spraying committee reported that after experimenting they had found that curculionid and other insects can be prevented if sprayed with lime and sulphur previous to the time the buds begin to grow. If the leaves start and curl while the leaf season is on the pest cannot be checked. The committee experimented in one orchard by spraying all but five trees in the manner advised. In every case, save those of the five trees, the crop averaged ten baskets. The other five lost all their foliage and fruit.

Officers were elected for the various districts and a series of meetings were arranged for the coming spring. Further reference to this convention will appear in next issue.

Brown-Tail Moth on Imported Nursery Stock

To Nurserymen and Others—We are again confronted with the possible introduction of the brown-tail moth into the Dominion in the shape of the winter nests of nursery stock imported from abroad, especially from certain regions in France where nursery stock has sometimes been found growing in fields bounded by hedges, infested with the brown-tail moth.

Last year nurserymen and other importers co-operated with this division in the work of preventing the introduction of this insect by notifying us of the arrival and expected arrival of consignments of nursery stock from abroad. This enabled the division to inspect the stock and to destroy any of the winter nests that were found. Over a million and a half plants were examined and nearly 900 nests were found on seedlings and stocks of pear, apple, plum, quince, cherry, rose, spiraea, etc. In view of the fact that each nest contains from 200 to 300 young larvae of this insect, the great benefit to fruit growers, horticulturists and others resulting from the work of last season can readily be understood. In the eastern states thousands of dollars

are being spent annually by the various authorities in their efforts to control and prevent the spread of this insect which has established itself in those regions since its introduction into Massachusetts on imported stock about the year 1858. It is of the utmost importance that all steps possible shall be taken to prevent its introduction and establishment in those regions of Canada now free from its attack, and its further spreading in those places in Nova Scotia and New Brunswick where it has been introduced accidentally. Its most serious attack in Canada would be most serious to the nurserymen and fruit growers of this country, and every precaution possible must be taken to avert such a calamity.

If you kindly inform me, therefore, if you are importing or have ready imported nursery stock this season from abroad, and the place from which the stock is being or has been imported, I will be pleased to send you this information at once in order that your stock may be re-inspected, if necessary. If the stock has not arrived already would you please send me notice as to the time of its arrival in order that it may be inspected, if necessary, at once.

As nests have been found on stock imported during the present season, I should be pleased if you would send me this information at once in order that your stock may be re-inspected, if necessary. If the stock has not arrived already would you please send me notice as to the time of its arrival in order that it may be inspected, if necessary, at once.

It has been found that fumigation is of no avail against this insect and that destruction of the winter nests is the only safe remedy.

I feel sure that all to whom this letter is addressed will be alive to the seriousness of the danger which is imminent, and will co-operate with the division and other authorities in the efforts being taken to prevent the introduction and spread of the brown-tail moth. I shall be pleased to supply further information or reply to communications on the subject and shall be grateful for any assistance which you are able to give to me.—C. Gordon Hewitt, Dominion Entomologist, Ottawa.

Orchards in Halton County

R. J. Hare, Milton, Ont., is getting ready to send out large quantities of nursery stock for spring planting. The apple orchards are taking the lead, and as there has been a very heavy run on apple trees in all the nurseries, the prices of trees for the future are liable to be higher. Some nursery men have already advanced their prices.

The farmers of Halton County and especially the Townships of Trafalgar and Nelson, are waking up to realize the good money there is in the apple business. It is brought about largely by the fact that we have in the North-West Provinces, that will be continually wanting more and more of our good highly flavoured apples, such no other country is able to compete with or equal. Then we have an advantage in shipping to that territory over British Columbia in the matter of distance. After all that we have the Old Country market, as good or better than it ever was before. We would advise men that are going into this grand enterprise to fit the ground well before planting. Cultivate the trees less than nine inches, and allow no manure to come in contact with the root of the tree in planting.

No better investment can be made on a farm just now to enhance its value than to plant a large apple orchard on proper soil. Trees grow into value very quickly under proper care. One thing that has hurt the apple business in this country is that orchards are too small and contain too many varieties. There are not enough large orchards together to form a co-operative association and do a practical business.

The Cost of Producing Grapes

In the issue of Farm and Dairy for December 30, an article appeared on this page entitled: "Is Grape Growing Profitable?" This was the subject of an address at the Ontario Fruit Growers' Convention in Toronto last November by Mr. Murray Pettit of Winona, Ont., who answered the question in the negative.

An interesting discussion followed Mr. Pettit's address, most of the growers stating that Mr. Pettit's estimated cost of production was a little high. Mr. Fred Goring, St. David's, who has earlier soil and an earlier location, said that he finds the cost of production much less than the figures given by Mr. Pettit, and that his prices are better. Mr. Robt. Thompson claimed that grapes can be grown for one-half the cost mentioned. Mr. E. D. Smith also thought that Mr. Pettit's figures were a little high. He said the growers should not be discouraged because grapes sold at a loss towards the end of last season. Wine men have been off the markets for two years. Unfermented wine will be made in the near future in this province, and will take one-half of the crop. Mr. Smith expressed the

opinion that co-operation in itself will not raise prices. He stated that there are no middlemen in the business to lay except those absolutely necessary to the collection, distribution and sale of the crop.

The premature marketing of grapes came in for a considerable discussion. Mr. Robt. Thompson said that it would work its own cure. The man who cuts early will get less money than if he had waited a little while. Prices will drop in two or three days and stay down. Mr. M. Pettit thought that it required more than education. He believed that legislation is necessary to prevent this kind of fraud. Mr. C. E. Bassett, a large fruit grower in Michigan, said that the matter is within the control of co-operative associations as long as their members are concerned. Growers' associations find that it does not pay and they will not open their cars early enough in the season for the production of green grapes. Immature grapes at all seasons should be refused.

Farm and Dairy is a good farmers' paper and should be in every home.—S. Macklin, York Co., Ont.

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POULTRY YARD

Rations for Winter Layers

S. Short, Carleton Co., Ont. The scarcity of fresh eggs at this season, which is the rule with few exceptions among poultry keepers, brings up the question of rations. The general opinion, from the discussion on the subject by the members of the Ottawa Fraternity, seems to be that mixed grain is better than one variety, that it should be fed in clean litter, such as forest leaves or straw to promote exercise and vigor, and that the feed should be plenty of vegetables—especially preferred—of beets, cabbage, turnips, small potatoes or carrots. Also some animal food should be given in the shape of ground bone of home cooked meat from the stock pen. Some few did not feed soft feed but the majority were in favor of feeding sufficient to about half satisfy the fowl at mid day. My own opinion about soft feed is that it is a good ration for fowls in a warm house, and for active fowls like Leghorns, Minorcas and birds of that type. For heavy fowl in a cold house I think whole grain is better, and that soft feed should be fed sparingly to laying fowls.

To summarize, the following rations and equipment are recommended, and if fed intelligently and systematically should produce good results if the fowl are of the proper age and the house at all comfortable. Mix grain in the following proportions: 40 per cent. wheat (good); 20 per cent. oats; 20 per cent. barley; 20 per cent. corn (whole).

Give one pound of this to every six birds in the morning, throw into fresh litter, a sparing feed of ground meal (soft food) at noon, and the same quantity of grain as the morning feed in the evening. Add to the above once or twice a week, a ounce of ground bone for each fowl, or meat supplied in any convenient way. Give fresh water daily.

Some discretion must be used as to the quantity of food supplied. The

hens should go to roost with their crops full and yet not leave food around for rats and mice. If their crops are felt just after they have gone to roost the fullness or otherwise will indicate whether to increase or decrease the rations.

Buying Supplies

1. Is the present Association going to help the producer in buying supplies? Has anything been done in this matter? 2. Is this association going to have special egg crates or boxes, or are we to ship in humpty dumpters? 3. Is the market for grit, shell, bone and meat, would you advise buying dried meat, instead of beef, liver and heads at five cents each?—A. S. Chateaugay Co., Que.

1. Nothing definite has been done in the co-operative buying of supplies. It will take considerable organization before we can do much in this and we thought best not to touch it until we were sure of our ground.

2. The association have not decided that it will have any special egg crates or boxes. I think, however, it would be a good plan. Humpty dumpty are not the best shipping boxes for eggs. This matter however, can be taken up at our next annual meeting in February.

3. Grit and shell can be supplied to the hens by small, fine gravel and lime in any other form, but usually this is so inconvenient and hard to get that the commercial shell comes cheaper. The dry, ground bone is just as nutritious as the green bone, but may not give such good results because the hens do not like it as well as the other. If you have a bone mill, and it is not too much trouble to turn it, beef heads at five cents are cheap. If you have a bone mill, heads halved or quartered, make nice picking for the hens if hung up in the pen. Livers also make a good change if given no more than they eat up at once. There is, however, so much of the head lost if it is not ground that it may be a question worth considering as to whether a Lome mill would pay.—F.C. Eilford, Macdonald Club, Que.

sell. It is with this object in view that the association was formed. It does not actually buy and sell, it endeavors to keep its members in touch with the best markets, and vice versa. We have been operating one or two circles and they have given good satisfaction. The question has been taken up more and more by just such organizations as you expect to have. We will be very glad to hear from you and if you are doing and if there is anything else we can do for you along this line let us hear from you.—F.C.E.

The book Poultry Feeding and Fattening which I received as a premium from Farm and Dairy for one new subscription pleased me much. It is far better than I had thought I would receive. Farm and Dairy is splendid.—A. G. Hodson, New Brunswick.

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Farmers' Clubs and Poultry Co-operation

The writer is organizing in this village a farmers' club, and one of the industries that we shall follow up closely is that of poultry raising and marketing. The writer intends to make the club a central station for poultry and eggs, as he is anxious to make the best showing possible at the earliest possible date, in order to show the members that they can by working on right lines make these clubs and associations of practical work and financial gain. Then they will be encouraged to continue into other lines which are open for them, the growing of special crops, etc. Kindly advise us as to how they run the work. If you have a prospectus handy, would you please forward me one, and should you know of any work or bulletin that we can get, please to mention the same.—W. S. Ont.

We are sending you what printed information we have in reference to the C.P.A. You will notice by looking over this matter that the association was organized to assist the producer to market his stuff to the best advantage. We have had more or less assistance along the production end, but nothing has ever been done to make it easier for the producer to

Just sit down and write us for full particulars of the best business proposition you are likely to hear this year. Let us tell you, in plain words, how very little money will start you in the profitable business of poultry-raising the Peerless Way. Let us show you why it will pay you well to

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AND RURAL HOME

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FARM AND DAIRY

PETERBORO, ONT.

DISCOURAGE THE BARTERING SYSTEM

Thanks to the general prosperity that has been enjoyed in the older and better settled districts where farmers have been enabled to do a cash business, the old system of bartering country produce at the corner store for dry goods, groceries and other trade, while still practised more or less, has given place to a straight cash business. This is as it should be. The benefits of the change are many and most marked.

In the newer districts, the old system of bartering still prevails. Throughout Muskoka, Parry Sound and some of the districts of New Ontario, cash transactions are almost unheard of. Many firms are carrying on an enormous business in farm produce, tan-bark and lumber and they obtain these commodities for the most part without paying a dollar in cash. They give goods in exchange.

This bartering system is good for the dealer. It is severe on the farmer. At times it is most unfair and rarely is it conducive to the high average

of prices that are possible where all business is transacted on a cash basis.

Throughout Muskoka and Parry Sound, large quantities of dairy butter are manufactured. While through these districts last fall, an editor of Farm and Dairy learned, and viewed the matter with much concern, that practically all this butter was handled by local stores and that goods were exchanged for it, a very moderate valuation being given to the butter. A ray of hope sprang up, however, when it was found that here and there an occasional farmer had broken away from this bartering system and had sought a market for his produce in the larger and more distant towns where he was realizing a greatly increased price and was receiving spot cash for his produce.

This business of bartering farm produce for goods, together with the credit system is the curse of many of these more sparsely settled districts. The same is true in other parts. We should realize that there is a great and growing cash market for all kinds of farm produce in more distant centres, if not at home, and we should aim to place our goods upon these markets and wipe out this business of bartering. In order that greater quantities of a given commodity may be had, such as will command the attention of distant buyers and on which favorable transportation rates can be obtained, we should co-operate with neighbors in marketing our produce.

PRACTICE A CROP ROTATION

A crop rotation planned to suit the location and carried on with a fair understanding of natural conditions, may be made to give the land greater productive power. The convenience and probable immediate profit of farm work are involved in a suitable rotation. But, notwithstanding the well known benefits of intelligent crop rotation systematically carried on, many continue year after year to give very little attention to this important matter.

The low average yield of many farms, their depleted fertility, the prevalence of weeds and the inferiority of pastures are largely owing to this disregard of the principles and practice of crop rotation. This same disregard of suitable crops and rotations is responsible for what might be termed the special drudgery of some farms. A variety of crops properly rotated better distributes the work of the year and enables one better to provide for live stock; besides, one crop may more profitably follow another than itself from its leaving the soil in better condition.

The practice of cropping continuously so long as such seems profitable and then seeding down to grasses needs to be discouraged. Long terms for any one field to be in pasture are also far from being in the best interests of the land or of its owner; yet scores and scores of farmers take hay from a field so long as it will give a fair return and then use it

many years for pasture. The sod, while it is not favorable to weeds, harbors insect pests and is responsible for the depredations of wire worms and white grubs when such land again is brought under cultivation.

The short rotations, three-year or four year, have everything to commend them. These naturally cannot be applied universally. But while they are adapted only to certain conditions, longer and shorter ones under other circumstances may be made to unlock fertility and to yield satisfactory results if intelligently planned and persistently pursued.

If for any reason, we have failed to give crop rotation its due consideration in the past, it will be well to do some solid thinking on and planning rotations that can be put in working order at the commencement of the growing season of 1910.

GRASP THE POSSIBLE

This season of mid-winter with its long evenings and their accompaniment of more or less leisure hours furnishes ample opportunity for reflection on the business of the year now past and for making plans for the forth-coming season. It is a time when we may well seek to discover wherein methods of farm management can be improved, wherein we can increase the production of stock, of crops and of the farm at large.

The matter of varieties of crops merits special consideration. We ought to determine whether or not the crops grown last year have been the most profitable crops to grow. The findings of the Ontario Agricultural and Experimental Union through its thousands of experimenters will serve as a valuable guide. We quote a few examples to illustrate this point of the difference in productiveness of different varieties of grain. The Siberian oats stood at the top of the list with 1,414 pounds of grain to the acre; the common Mandscheuri barley, 1,578 pounds; the O.A.C. No. 21 barley, 1,649 pounds—a marked difference in favor of this special strain. In actual pounds of grain produced, common emmer had 1,815 pounds per acre to its credit. The mixture of Daubeny oats (34 lbs.) and Mandscheuri barley (38 lbs.) has to its credit a yield of 1,918 pounds per acre. Thus a great difference in yielding power was noted among the different classes of grain. A wide variation in productiveness was noticed in addition between different varieties of the same class of grain.

These are things that should receive our earnest consideration. Reports of our various experimental stations, the Ontario Agricultural College, the Experimental Union and our Dominion Experimental Farms, all can be had for the asking and contain valuable information which needs only to be studied and practised to be appreciated.

Other things in great numbers pertaining to the farm likewise will bear mature reflection. We need to think. The lack of this exercise is the only

excuse that can be given for the mediocrity of success wherewith in the past we have been satisfied. The possible is within reach. Grasp it!

CATTLE BREEDING SYNDICATES

It is about time that we were getting down to doing something definite in the matter of increasing the production of our dairy herds. Phenomenal records of individual cows we have in numbers. Many cows have qualified in the Record of Merit and Record of Performance tests, but what of the average dairy herd? There still continues to be much indifference as to the whole matter, any progress that has been made falls far short of what it might be.

We are inclined to think this question of increasing the milk production of dairy herds as being a long winded business, that cow improvement requires years of persistent effort to accomplish. Records of herds recently published ought to dispel this idea forever. The history of the herd owned by Mr. Arnold J. Davis, Oxford Co., Ont., published in Farm and Dairy, December 30th, gives a fair indication of how quickly improvement can be accomplished. That he should have doubled the production of his herd in only five years' time is most encouraging. Special note should be taken of the fact that the average production from the heifers of a good sire, in Mr. Davis' herd, was for their first period of lactation 2,000 pounds per heifer more than the average production of their mothers that were mated cows. The value of good sires needs no further argument.

These good sires cost good money, however, but they are worth it. In order to overcome this point, the suggestion thrown out by Mr. C. F. Whitley, at the recent convention of the Eastern Ontario Dairymen's Association regarding the formation of breeding syndicates for the purchase and exchange of bulls, is worthy of our best consideration. Mr. Whitley's scheme is that 15 or 20 men should club together under a six-year agreement and purchase three good bulls, the herd to be divided into three groups, each group to have one bull three years and at the end of each three-year period, there should be a redistribution and thus each member of the group would have the use of three good sires for three years each and at a cost far lower than if each member bought separately.

Let us hope that at least a few of such organizations will be organized shortly. They would work untold improvement in the dairy cattle of this country.

The short courses in stock and seed judging that are being put on in several centres by the district representatives of the Ontario Department of Agriculture deserve most hearty support. Those counties wherein these courses are held are most fortunate in having such valuable instruction brought to their very doors. A large attendance at these events is the most tangible way of showing the Department that this work is appreciated.

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.

Going to Use the Scales

Wm. Neuman, Victoria County, Ont.

Creamerymen have continued using the pipette for measuring the cream samples because they did not realize that they could weigh the samples quickly and correctly. Scales were somewhat expensive, and were not known to any extent. These reasons coupled with the fact that it is hard to get away from the old way of doing things has held us back from making the advance that we might have made.

I have realized for some time that we should change our method and use the scales rather than the pipette as urged in an editorial in Farm and Dairy Jan. 12; thinking that it might remove much of the dissatisfaction among patrons. Also because I have found it hard to take a sample without incorporating more or less air with the sample. Then I knew that the man sending rich cream was hardly getting a fair deal. After studying the principle for some time I have decided to weigh all samples for cream testing. I do not think that by doing this all our troubles will be stopped, for most of the dissatisfaction that creamery men have is from the patron sending poor or thin cream. But I will know that at least no air will be measured with the sample, and I will be satisfied that the reading is more nearly correct.

The man who takes this stand is at a great disadvantage because weighed samples, compared with measured samples, mean a lower overrun and lower price for butter fat. This may go well for a time, but at the end of the year patrons are apt to forget and are inclined to compare their returns with the average price their neighbor received who sends to the opposition creamery. So scales may mean that we shall have a hard time to hold our patrons. I move that all creamery men adopt the use of the scales for weighing samples of cream instead of measuring with the pipette. Will some one second my motion?

Creamery Problems*

Prof. H. H. Dason, O.A.C., Guelph

What we shall have say about creamery problems will centre about three words, which are associated with progress. These words are, more, better, brighter. We prefer these words rather than the best, brightest, because the latter indicate the highest possible achievement and when man has reached this stage there is nothing further to be done. He may as well quit this place of existence. Progressive, improving, do-better dairymen are what is needed in the creamery and all other branches of the dairy.

MORE CREAM PER COW AND PER ACRE

Larger dairy farms are not needed in Western Ontario. Because cream is a more or less indefinite commodity it will suit our purpose better if we use the term, milk-fat. Some recent investigations in Ontario would indicate that the amount of milk fat supplied to creameries is less than one-half pound per cow daily. If the average 100 acres carry 10 cows, and the cows milk 200 days in a year, we have 1200 lbs. milk fat produced on 100 acres—an average of 12½ lbs. per acre. If we spread 1½ % lbs. fat over one acre of land we shall have a very thin coating, so thin that it could not

*An address delivered at the Western Ontario Dairymen's Convention in St. Thomas, last week.

be seen with the naked eye. If we can increase the milk fat production to 300 lbs. per cow and the number of cows to 50, per 100 acres, a by no means impossible increase, we shall have a production of 150 lbs. milk fat per acre, which would be a visible quantity. If this were done it would mean more profit to the farmer, less expense for hauling cream, hence less cost for manufacturing as the cost of hauling the cream is about one-half the total expense for making the butter.

MORE BUTTER PER GALLON OF CREAM

A great deal of loss to the farm and extra expense to the creameryman results from what is commonly known as "thin" cream, i.e., cream containing too small a proportion of fat and too large an amount of skim milk. Manufacturers and agents of cream separators can do a great deal to assist on this point. With average milk the separator ought to be so regulated that not more than 12 per cent. of the whole milk is taken as cream. This will give a cream testing about 30 per cent. fat. The advantage to the farmer in having cream which tests about 30 per cent. is that he thereby has more valuable food for stock and more fertility for the farm. The creameryman obtains more butter from a given volume of cream which is likely to be of better quality as it is the skim milk in cream which is the cause of sourness and most of the bad flavours.

MORE MONEY PER POUND OF BUTTER

What is a pound of butter worth as human food? It would be difficult to give a direct answer to the question because the value of foods is always comparative. A food has a certain value compared with something else. Generally speaking, we believe that butter is worth not less than 25 cents a pound. If there was less poor, cheap, dirty butter put on the market it would tend to increase consumption and price. If farmers would patronize creameries, instead of making the butter at home and selling it, or "trading it out" at stores, and allow the expert separator of the creamery to do the butter, the price of butter could be advanced at least five cents a pound. We know of a creamery that practically controls the butter market of a certain territory. As a result of the farmers having patronized this creamery, the prices obtained for their butter are fully five cents a pound more than they formerly received after paying the cost of manufacturing, and they are saved the labor and expense of making the butter at home.

BETTER CREAM

Stronger efforts are needed towards the improving of cream, the raw material for buttermaking. Ideal cream is that which is not over 24 hours old, sweet and clean in appearance and flavor, and tests an average of about 30 per cent. fat. Where pasteurization is practised sweet cream is very important in order to reduce the loss of fat in the buttermilk. Experiments conducted at the O. A. College during 1909 gave the following losses of fat in the buttermilk when cream of various percentages of acidity were pasteurized:

Cream containing less than 35 per cent. acid-buttermilk contained .13 per cent. fat.
Cream containing less than .35 to 4 per cent. acid-buttermilk contained 2 per cent. fat.
Cream containing less than .4 to .5 per cent. acid-buttermilk contained .34 per cent. fat.
Cream containing over .5 per cent. acid-buttermilk contained .52 per cent. butter fat.

These results indicate the importance of sweet cream where pasteurization is followed.

Cream containing a relatively high percentage of fat, kept at a low temperature (50 deg. F. or under) and delivered frequently (at least three



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times a week) are favorable conditions for obtaining better cream at creameries.

BETTER BUTTER

Better butter means butter of cleaner, sweeter flavor, uniform in color, properly salted and put up in packages suitable for the market to which it is sent, and shipped to the consumer while in a fresh condition. Where butter is to be kept for any length of time or where uniform quality is desired pasteurization of the cream is one of the greatest aids in making better butter. The markets of the world are asking for more butter and better butter. It is the business of the creamery managers to supply this demand and exact the price. In the words of a somewhat long phrase: "Plan your work, then work your plan."

This leads to the central thought of

my address. One of the biggest creamery problems is how to obtain BETTER MANAGED CREAMERIES.

To obtain this it is necessary to have:

1. A good manager, a tactful, good business man.
2. Loyal patrons, those who stay with the creamery, through good report and ill so long as the business is well managed.
3. Quick, safe sales, with prompt returns are necessary.
4. Prompt monthly or bi-monthly settlement with patrons.
5. A proper system of book-keeping and clear, concise monthly statements.
6. Careful, honest drivers.

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A TRUE woman never frets about her status in society, nor her place in the world, but just glides into it by the gravitation of her nature, swinging there as easily as a star.

SOME NEIGHBORS

The Extravagantly Careful Martins

By Marion Hill

JUST as one forgets to hear a clock which is ticking all the time, having to pause and listen to make sure that it is still going, so one is very apt to be unaware of the presence of things which are lying around in plain sight; the eye, quick to note what is new, is sometimes terribly remiss about detecting the untidy effect produced by articles out of place, providing the misplacement has been long lasting.

Now, the Martins really do not see the empty flowerpots which litter their otherwise trim little garden. They left off seeing them about a year ago, seeing them so often, while we of the neighbourhood, heretofore the soothing apathy which by now hails the Martins, are so nervously conscious of those empty, yellow eyesores that we cannot pass the house without experiencing a distress as if our temperatures had risen or fallen a few degrees wide of the normal. And surely our worry is not a waste of

energy; somebody ought to worry over those flower-pots, they are so glaringly in the way; and if the Martins refuse, why, we must—just to maintain the proper average of worry.

Mrs. Trent spoke to Mrs. Martin once about the usefulness of the flower-pots, that is—you know. Mrs. Trent believes in "speaking her mind." The rest of us are inclined to consider the term synonymous with "poking into other people's business," especially when Mrs. Trent gets after us, but it always amuses us more or less when she gets after some one else, and we quite approved of her pertinent remark to Mrs. Martin.

"Why in the world do you keep those hideosties on exhibition, day in and day out, if I may ask, Mrs. Martin?"

"Which, my dear?" queried Mrs. Martin. She did not take offense easily. No dumpy little woman who is always holding her dressing-sack together at the neck with one hand, and her pocket together at the back

with the other hand, ever does take offense easily.—has not the time, in fact.

"Why, those garbage-y set-outs" pointing to the articles. If current English failed to provide Mrs. Trent with the proper words to "speak her mind," she was always capable of a timely invention.

"Oh, those!" Mrs. Martin beamed at them fondly, as if she saw them but newly, which was practically so. "They may come in so useful at a pinch; it would be shockingly wasteful to throw them away, my dear."

"Haven't you had them there some two years?" demanded Mrs. Trent, getting judiciary in tone.

"Keep a thing for seven years," quoted Mrs. Martin, chuckling amiably and holding herself tighter, neck and gait, to stand the strain.

"Pooh! Proverb wisdom is mighty poor stuff to steer by," sternly commented Mrs. Trent. "Every proverb you can give me I can contradict by another proverb!"

"Wilful waste makes woful want," tendered Mrs. Martin cheerily.

"Save at the spigot and leak at the bung!" fired Mrs. Trent hotly.

"Money a mickle makes a muckle," murmured Mrs. Martin, losing heart, but feeling that courtesy required her to continue.

"Spel your ship for a penn'orth o' tar!" boomed Mrs. Trent.

"Never put off till to-morrow what can be done to-day," observed Mrs. Martin, with mock dignity, feeling that she had her opponent in a tight place.

"Haste makes waste!" countered Mrs. Trent, with a general air of "Come on, fellows."

"A soft answer turneth away wrath," ventured Mrs. Martin, feeling frightened and vaguely apologetic. "Won't you come in and sit down?"

"Answer not a fool according to his folly," hurled the intrepid Mrs. Trent. "No, thank you, Mrs. Martin. I must be going. But mark my words,

—to save a possible expenditure of five cents for a flower-pot, you'll be giving fifty pretty soon to have your garden cleared of truck. Good-by."

"Good-by," called Mrs. Martin after the retreating figure. "What a hard-sneaking creature she is! And she doesn't know as much as she thinks

she does. Fifty cents for clearing, indeed! Why, it cost me a dollar last time I had it done."

Just because Mrs. Martin wears a badly-hung skirt and a dressing-sack, it would be all wrong to put her down as slovenly and careless, the truth of the matter being that she is so tidy and careful that she is never fit to be seen. She likes to keep her skirts immaculate, and therefore, she seldom takes them down from the cupboard hooks; and when she once gets a drawerful of exquisitely laundered shirt-waists she would just as soon pull a tooth as put one on and "muss" it. The patent fact that she is always just a year behind the prevailing fashion when on the street never seems to worry Mrs. Martin in the least. Securely comfortable in the knowledge that her stylish new gown is safe on its hanger, she wears her last year's gown with a commendable sense of thrift; and it is always well along towards winter before she gets on speaking terms—so to put it—with her spring outfit. They are an economical lot, the Martins.

Mr. Martin has the clipping habit, and the horde of newspapers he lays by from year to year would fill in a water-front. He says that it is a waste of the best brains of the country to destroy a newspaper, and that by exercising proper care in regard to a scrap-album one may become possessed of a mine of information. Therefore he spends a small fortune on glue, brushes, albums, shears, and bindings; yet, when all is said and done, his "mine of information" is neither as varied nor as get-at-able, as it would be were he to invest in an encyclopedia. But once let the clipping habit attack a man and it means disaster all around; he'll clip the wings from the dove of peace, give him half a chance. His desk resembles a city dump; all his pockets are wadded out with printed matter; he overflows up to the attic, down to the basement, and out into the barn. He is always employing a carpenter to make him some boxes, put him up some shelves, or fashion him a book-case,—yet all he has to show for his time, trouble, and expense is a lamentably gummy mass of extracts, all of them unverified and most of them inaccurate. And, too, he is always several centuries in arrears of



Women's Institute Convention at Cuelph

The above illustration shows only one of the many interesting sessions held in Cuelph at the recent Annual Convention of the Women's Institutes of Ontario. Note article in this issue by Mr. G. A. Putnam, Supl. of Women's Institutes in Ontario. If there is no Institute in your vicinity, why not form one at once! Full information regarding Ontario Institutes can be obtained by writing to the Superintendent at the Parliament Buildings, Toronto.

himself regarding the matter of classification and selection. He has a heap of envelopes labeled: Art, Books, Crochery, Dramaticke, Eggs, Flamingoes, Ghosts,—and so on, through the alphabet, and some day he hopes to get his clippings assorted into the proper album, but the day never arrives, and the flamingoes are sitting on the eggs still. And when the Martins move, you just ought to hear the movers! The number of names they can invent for Mr. Martin's fall is astonishing. Boxes of newspapers are so heavy!

Good little Mrs. Martin says nothing, but thinks mighty little of the collecting habit when it is confined to newspaper scraps, but mention "rags" and she is promptly on the defensive. Mrs. Martin's rag-bags take up every inch of space not occupied by newspapers. She has a trifling advantage over him, inasmuch as she can hang her plunder from nails in the ceiling, whereas he can't very well. The name of her bags is legion—and it ought to be Gehenna. They are supposed, though, to be a monument to her domestic thrift.

"We never throw anything away," she says pleasantly, and looks as if

she wanted kindly comment for the terrible admission!

(Concluded next week.)

The Upward Look

Believe

All things whatsoever ye pray and ask for, believe that ye have received them and ye shall have them.—Mark 11, 24, R. V.

During the past few weeks an effort has been made to show that the greatest blessing any of us can receive is to be filled with God's Holy Spirit. "With God all things are possible." (Mark 10, 27). "I can do all things through Christ which strengtheneth me." (Philippians 4, 13). Once we have been baptized with God's Holy Spirit we will have power both to lead others to Christ and to gain all good things in this world that will be helpful to us. God has poured blessings on the ancient Israelites, when they did as He commanded them, so He will do us if we will do His will in all things and have faith. But He will command us to seek first the Kingdom of God and His righteousness. It is after we have done this that all these things shall be added unto us. (Matt. 6, 33).

It has been shown that God is even more willing to give us His Holy Spirit than our earthly parents are to give us good gifts. (Luke 11, 13). That because God can give it to us, however, we must remove all sin, every sin, from our lives; we must hate sin and long after righteousness; we must confess Christ as our Saviour; we must be willing, if He asks us, to give up everything for Him; we must desire His glory above everything else; we must be sure that the motives which lead us to Him for His Holy Spirit are such as will be pleasing to Him, and we must ask Him for it definitely.

But, even after we have complied with all these conditions, there is still another step that we must take. Our text tells us what it is. We must believe that God will keep His word and give us what we ask for. The reason that many earnest Christians lack the power in their lives for which they long is because they lack the faith that is necessary before it can be obtained.

In 1 John 5, 14, and 15, we are told that if we ask for anything according to God's will He heareth us, and that if we know that He heareth us, whatsoever we ask, we know that we have the petitions that we desire of Him. When we pray for the gift of God's Holy Spirit we know that we are praying for something that is according to His will, and that it is something that he is anxious to give us. We should then when our prayer has gone up, and the other conditions mentioned have been complied with, believe that we have God's Holy Spirit.

Do not expect that there must necessarily be some great and sudden manifestation of God's power in your life. There will be a manifestation, and you will see it in good time, but do not be disappointed if it does not come at once. God wants you to have faith and to show it. He wants you to take Him at His word and to believe that you actually have what you have asked for. Believe God's word before your own feelings. Once you have complied with all the conditions that have been mentioned God will do His part. He will baptize you with power from on high, and you will be able to accomplish wonders, both in your own life and in the lives of others, in His name. But you must be very humble. Once you admit pride or sin in any form to again enter your life, God's Holy Spirit will leave you just as it did Saul, and

many of the kings of the ancient Israelites. Sins against which we must be on our guard, will be described in next week's and succeeding issues.—I. H. N.

Women's Institutes

Annual Address by Supt. G. A. Putnam, Toronto

We are pleased to be able to publish in this issue a part of the annual address of Mr. G. A. Putnam, Supt. of Women's Institutes, for Ontario, which address was read at Guelph at the annual convention last month. The remainder of Mr. Putnam's able and most interesting address will be published at a later date.

We should consider ourselves well repaid for the effort put forth and the money expended even though we could look to results in only isolated sections of the Province. The expressions of appreciation on the part of the members of the Women's Institutes in Manitowlin, the Soo and Thunder Bay districts upon the occasion of my visit to those districts last fall, more than repaid me for the efforts I have put forth in behalf of Institutes. When we find women driving 30 and 35 miles in order to get something to assist them in making the local society a success, we cannot be conclude that there is an earnestness in this work which must result in universal benefit. We are pleased to report that the work has extended considerably throughout the past year, and the day is not far distant when the girls and women throughout the whole Province will enjoy the advantages of a local Women's Institute.

There has been a general extension of the work in many of the old ridings, 88 new branches having been established during the past year. We now have 520 branches which are doing active work and a few more which are carrying on the work in a more

or less indifferent manner, probably doing better than we know of, but satisfactory reports have not yet reached the Department. Four societies which had dropped the work for a time have re-organized and not more than 3 or 4 per cent. of the societies which were active a year ago have discontinued the work. This is a most creditable record. Our membership last year was 13,841 and this year, beginning with June last, the records are considerably in excess of any previous year at a corresponding date. The membership thus far being 11,500.

The total attendance at Women's Institute meetings this year was 119,363 within two or three thousand of the attendance at our regular and supplementary Farmers' Institute meetings. It is a close race now between the two societies. Who will be ahead in the records for 1909-10?

BENEFITS THE WHOLE FAMILY

We have evidence from the husband, the son, the daughter, and the neighbor, that the Institute has been an uplifting force in the life of the home and the community. The husband notices that the mother performs her work in a more systematic manner with less labor, while the family is better nourished with plain wholesome food, placed before them in an attractive, varied form. He observes that a few well chosen plants are artistically grouped in the house during the winter, while the garden contains a judicious selection of vegetables and small fruits and a sprinkling of flowers. More attention is paid to the selection and care of the fowl, with the result that this part of the farming operations has produced an increased income and has been the source of a constant supply of fresh eggs and poultry for the farmer's table.

With less manual labor and a little more study, thought and planning, the family is accomplishing more—



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There is hardly a farmer's daughter in Canada who does not know Windsor Salt.

It has been the universal standby for years.

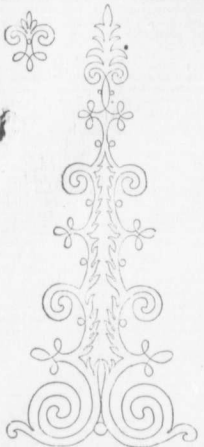
Practically all the prize winners at the fairs have used Windsor Salt—last year, 95% of those winning cash, medals and premiums, made their prize butter with Windsor Salt.

If you have not been using Windsor Salt for butter making, get a sack and try it. You will then see why the prize butter makers use it.

It is desirable to mention the name of this publication when writing to advertisers.

Embroidery Designs

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



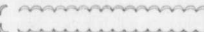
430 Design for Braiding a Panel and Bodice Front.

Transfer patterns for a shirt panel and small bodice garment are given. Soutache braid (silk, mohair and cotton) and rat-tail cord are appropriate.



401 Design for Embroidering a Blouse or Shirt Waist.

Patterns for stamping front, back, collar and sleeves are given. The flowers and leaves are designed to be worked in solid or satin stitch and the stems to be outlined. The ribbon effect may be done either in solid embroidery or outlined.



387 Design for Half-Inch Scallops.

Both scallops are suitable for edging, ruffings, aprons, collars, cuffs and such decorative objects as cushion covers, etc. Five yards of scallops and five corners are given with each pattern. The scallops are to be heavily padded and buttonholed closely.

Send us one new subscription and secure one of our new Musical Folios. They are well worth the trouble.

producing more in dollars and cents on the old farm, more time for recreation and social intercourse, enjoyment better health as a result of letter selected and properly prepared food and are appreciating the advantages of rural life under modern conditions.

The boy notices that mother has more time to read than formerly and that she has a definite purpose in her reading life under modern conditions. Her attention is directed to reports or bulletins bearing directly upon her everyday responsibilities, or she is reading some ladies' journal, or it may be the most instructing and entertaining home magazine department in some other leading periodical. Much of what she reads applies to the topics which are to be taken up at the next meeting, has been considered by the local Institute.

She talks to the boys and the girls and the father, about the topic which she is announced for at the next monthly meeting; and it may be that the other members of the family will have suggestions to offer in the preparation of her paper or address or refer her to literature bearing upon the topic which she is studying. The growing interest of each in the work of the literary meetings of the family is apparent; and soon the "you begins to ask father and mother what opportunities there are for him to gain knowledge which will be of assistance to him in the practical everyday life of later years, and the reply comes "Take the short course at the Agricultural College or the two or four year course at that institution," or it may be he is encouraged to take a course under the Representative of the Department of Agriculture who is teaching in the nearby high school.

(Continued next week.)

OUR HOME CLUB

"THE FARMER'S WIFE."

Some time ago I read a few replies to Roosevelt's inquiry concerning the surroundings of "The Farmer's Wife," and turned away in disgust at the picture some of these wives gave of their environment. It seemed to me then and even now, were those same women placed in the position of bankers', doctors', or even ministers' wives, their cry would be the same. There are some people in this world who think their lot the very worst under the sun. They like to complain about it, not to secure sympathy but just for the sake of talking.

In our fair Canada, it is difficult to picture such depths of despair. It is also difficult to connect it with the lives of our farming sisters across the border. I have been fortunate enough to have entertained a farmer's wife from Michigan and judging from her remarks the farmer's wife has a happy life. A few weeks after leaving me I received a paper, giving an account of an 8.30 breakfast given by herself and husband to a few of their many town friends. The breakfast seemed quite an ordinary but pleasant way to entertain in Michigan on farm homes.

The article published in Farm and Dairy "The Tragedy of the Farmer's Wife," as it seems to the poor work of an imaginative mind. The author seems to weaken near the end, and draws a dim picture of what a wife should expect and demand. It seems to me the writer sent out to discover the conditions of the farmer's wife, knew, or at least thought he knew what was expected of him and wrote accordingly. The base insinuations thrown in between the lines make we Canadian farm wives fairly bold. True we have our work. Work makes us men and women. We have our difficulties, difficulties broaden our minds and hearts, but we have what few of our dear town sisters cannot claim to

have, a full share of our husbands' time. He is his own manager, and can, and ninety-nine times out of a hundred, does help his wife in many ways and ways which would open the eyes of the author of the "Tragedy" and set him thinking seriously.

I am very sorry that the story was so misleading to those who know little of Canadian farm life, but pleased to know it did not picture life on our dear old Canadian farm as "Mother."

"SISTERS' VIEWS."

One is more likely to be amused than concerned by the article from the "Delineator," depicting a typical (?) farmer's wife, which appeared in Farm and Dairy Household Department, Dec. 9th. There is no doubt that many—indeed, most—farmers' wives lead extremely busy, and often monotonous, lives. Nevertheless, we do not often see one resembling the abnormal being, "without an ounce of flesh on her stooped and wiry frame," who (instead of joining a travelling circus, as one would naturally expect) performs irksome household duties from 4 a.m. to 10 p.m., 365 days in the year, "in the midst of odors from decaying refuse." It rather surprises us to learn of her "with a look of hunger in her eyes ranging on the words" of the inevitable machine agent (who as usual stays for dinner), nor is it characteristic of the type of farmer's wife we have met, to response with the services of a servant girl, on the grounds that the affections—save the mark!—of her husband might be alienated.—"Sister."

THE "SON" SPEAKS AGAIN.

Readers of the Home Club Department were recently treated to a dissertation on the question of the girls sharing equally with the boys when it came to dividing up the farm, and any other real and personal property of an estate. This is a mostable problem and naturally the views of "The Son" would in any event be considered one sided. But while on the question of equal rights, let us dig up another point which for the most part is altogether overlooked.

How is it that the poorest room in the house is usually allotted to, and is thought to be good enough for the boys? Are the boys not capable of appreciating a good room, as well as their more favored sisters? It must be admitted that they are. The crude quarters, with their lack of those things that would interest any human being, so commonly provided for the boys, is responsible for their general lack of tidiness their uncouth nature, their discontent with home, and their ever increasing unwillingness to stay with the farm. Is it any wonder that the city looks so attractive to many of our farm boys?—"The Son."

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Patterns 10 each. Order by number and size. If for children, give ages. For adults, give bust measure for waists and waists. Address all orders to the Pattern Department.

GIRL'S DRESS 637



Girl's dresses made in Jersey style are becoming and well liked.

The dress consists of the Jersey portion and the skirt. The Jersey portion is cut in tabs at the lower edge which are faced and turned over to form the trimming. The skirt is straight and plaited.

Material required for medium size is 5 1/2 yds 24 or 27, 4 yds 32 or 36, 5 yds 44 or 48, 1/2 yd of all over lace, 1/2 yd of silk for piping and trimming.

The pattern is cut for girls of 6, 8, 11 and 12 yrs of age and will be mailed on receipt of 10 cts.

PLAIED PRINCESS GOWN 636



The princess gown with plaits in the skirt portion to provide flare and fullness is one of the prettiest and most graceful. This one includes novel and attractive sleeves, and a chemise.

The dress is made in sections that extend to the shoulders and there are extensions below the stitchings which are folded under form plaits. The closing is made invisibly at the back.

Material required for medium size is 12 yds 24 or 27, 10 yds 44 in wide, with 1 1/2 yds for chemise.

The pattern is cut for a 34, 36, 38, 40 and 42 in bust and will be mailed on receipt of 10 cts.

EIGHT GORED SKIRT 634



The skirt that is made in sections, or to give a panel effect, is exceedingly smart, and is constantly growing in favor.

The skirt is made in eight gores and each alternate gore is made in two sections, the lower being plaited and joined to the upper, which is shaped at its lower edge. The closing is made beneath the box plait at the back.

Material required for medium size is 8 1/2 yds 24 or 27, 5 yds 44 or 52 in wide. The pattern is cut for a 22, 24, 26, 28, 30 and 32 in waist, and will be mailed to any address on receipt of 10 cts.

FANCY YOKE NIGHT GOWN 636



The simple night gown with square yoke is always desirable, and this model suits all sizes. The material used has been made for underwear.

Material required for medium size is 7 1/2 yds 27, 5 yds 36 or 40, 1/2 yd of all over lace, 1 1/2 yds of banding, and 2 1/2 yds of edging.

The pattern is cut for a 34, 36, 38, 40 and 44 in bust and will be mailed to any address on receipt of 10 cts.

Instruction in Western Ontario

(Continued from page 12)

were reported as going off flavor with age, due no doubt to several causes. I have reason to believe that one of the greatest defects we still have to contend with is off flavors. Very few acidy cheeses were reported. During the hot weather some coarse textured cheeses were noticed due to over ripe and tainted milk and in a few cases to wrong methods of handling. The finish of the cheese is improving and less complaint was heard this year in the matter of boxing.

There were 16,586 patrons who sent

milk to the cheese factories during 1909. This is 690 patrons more than in 1908. The average per cent. of fat was 3.53 per cent. (In 1908 it was 3.5 per cent.) For May, 3.3 per cent.; June, 3.35 per cent.; July, 3.4 per cent.; August, 3.48 per cent.; September, 3.65 per cent.; October, 3.9 per cent.

The average loss of fat in the whey for the season was .227 per cent. (In 1908 it was .23 per cent.) For May, .215 per cent.; June, .211 per cent.; July, .211 per cent.; August, .241 per cent.; September, .245 per cent.; October, .241 per cent. It will be noticed that

there is very little difference in the average loss of fat in the whey for the first three months and for the last three months. The greater loss from over ripe and tainted milk, no doubt because after the curds are dipped.

PASTEURIZATION OF WHEY.

The pasteurization of whey has got beyond the experimental stage; it has given excellent results where properly done, and the cost will not exceed \$1.00 a ton of cheese. Experimental work was done during the early part of the season in both Eastern and Western Ontario regarding the cost of pasteurizing whey, the

results of which work will be published in some form later on.

WHEY BUTTER.

Only eight factories in Western Ontario made butter from whey the past season.

RENNET.

Considerable work was done by the Instructors relating to the efficiency and strength of the different brands of rennet extract in use during the past year. The results of this work will probably be made known later on.

WHEY TANKS.

Our whey tanks are in much better shape this year, many new ones having been put in, particularly elevated tanks which have replaced the old worn out ground tanks. The new steel tanks in use are giving the best of satisfaction, are easily kept clean, and give every evidence of lasting for years. Cement tanks are not in the majority of cases giving good satisfaction, and I do not think it advisable to put in these tanks, as the whey seems to dissolve the cement face, and as soon as the rough surface is exposed all kinds of trouble begins. There are however some whey tanks not of this kind. This is to be regretted for there is no doubt that unclean whey tanks have a detrimental effect on the flavor of the cheese. We trust that next season a special effort will be put forth to keep these tanks in good condition.

SANITATION AND IMPROVEMENTS.

A sum of \$90,448 was spent this year by the factorymen in putting their plants and equipment in better condition; eight new factories were built at a cost of about \$18,500, making a total of \$49,748 spent on our factories this year, 61 of which are joint stock or co-operative factories, and 144 owned by private individuals. The sanitary conditions of our factories are steadily improving, and as the owners can afford to spend money for these improvements. Most factories now have cement floors. Many are attending to the drainage and general surroundings. Some however, are not in as good condition nor kept as clean and tidy as they should be. They lack that system in the daily work and the neat appearance that makes the patron, the maker, and everyone else proud of the factory. Some factories will need considerable repair in the matter of floors, equipment, and several other ways before opening up next season.

MEETINGS.

District meetings were held during November and December in the different groups where many points of interest to the industry were discussed. Some of these meetings were well attended; others were not. Since Jan. 1st, 1909, to Oct. 31st, 1909, 145 annual and district meetings were attended by the instructors or myself, with a total attendance of 10,087. The 16 district meetings held during the month of February attended by Mr. Geo. H. Barr, who gave his illustrated address on the care of milk, and Mr. Jos. Burgess, who spoke on co-testing associations, were very well attended, and did a great deal of good.

There are 205 cheese factories in the six groups, five more than last year, with six outside factories, making a total of 211 cheese factories. There were 692 full day visits, 565 call visits, making a total of 1,173 total visits to the factories. There were 934 curd tests made, and 522 of these samples were tainted; 610 patrons were visited; 2,441 new milk cans bought; 95,494 bacteriometer tests were made; 1,101 Babcock tests were made for adulteration; 1,176 Babcock tests were made other than for adulteration; 636 Babcock tests were made for loss of fat in the whey in 93 factories are passing by the test—the same number as last year.

They Pass the British Government's Acid Test for Galvanizing

Do you know that PRESTON Safe-Lock Shingles are the ONLY kind you can buy that are made according to British Government Specifications for Galvanized Sheet Metal?

The British Government is the most particular buyer in the world. The sheet metal it buys for public works must be made and galvanized far better than ordinary sheet metal.

Each sheet must be carefully sheared to exact dimensions, thoroughly cleaned, and afterwards galvanized with best Virgin Spelter, which must consist of not less than 98 per cent. pure zinc—Excluded from British Government Specifications.

Each steel sheet is cut to the exact size of a PRESTON Shingle before it is galvanized with 98 per cent. pure zinc. In this way even the edges are thoroughly galvanized.

The sheets must be heavily and uniformly coated with zinc.—Ex. from B. G. S.

Ordinary galvanized sheets are not nearly so heavily coated with zinc as those galvanized according to British Government Specifications. To secure a thin coating the spelter is heated to a very high temperature. When the steel sheets are dipped into it only a small portion adheres to the surface.

Your eye cannot tell a thinly coated sheet from one heavily coated. That is why there are such a lot of cheap steel sheets on the market. They are considered good enough for ordinary shingles. But they couldn't pass the rigid specifications required of the steel sheets we use for PRESTON Shingles.

The steel sheets for PRESTON Safe-Lock Shingles are dipped into spelter kept at a lower and correct temperature. The sheets thus become very heavily coated. And, the coating is made perfectly smooth and even.

The sheets must stand perfectly without cracking the galvanizing.—Ex. from B. G. S.

Unless the steel sheets for PRESTON Shingles were of perfect quality and galvanized according to British Government Specifications not only would the galvanizing crack, but the metal also, where our top lock is folded to produce three thicknesses of metal. Look at a PRESTON Safe-Lock Shingle and you'll find the steel and the galvanizing perfect at our top lock as well as everywhere else on the shingle.

THE ACID TEST

The galvanizing must be able to stand the test of dipping the sheet into a solution of sulphate of copper at a temperature of 60 degrees Fahrenheit, allowing it to remain in the solution for the space of one minute, and then withdrawing it and wiping it clean. The galvanizing must allow of this being done FOUR times without



showing signs of a reddish deposit of Copper.—Ex. from B. G. S.

The reddish deposit shows up the thinly galvanized spots. Ordinary galvanized sheets, treated to this test, would be thickly spotted with reddish deposits. Yet you are asked to pay the same prices for shingles that cannot pass this test as you are for PRESTON shingles, which will easily do so.

This Acid Test is more severe on the galvanizing than twenty years of Canadian weather. You see, sheet steel galvanized according to British Government Specifications is galvanized to last. PRESTON Shingles are good for twice the service of ordinary galvanized shingles.

The construction of PRESTON Safe-Lock Shingles is far ahead of all others.

Other shingles merely slip or slide together at the sides and are easily pulled apart. PRESTON Shingles are securely locked together at the sides on the principle of the "sailor's grip." The heavier the strain, the firmer the grip. You cannot pull them apart.

The top lock of PRESTON Shingles is TWICE as strong as our wonderfully secure side lock.

The top of the shingle is where the greatest strain falls. PRESTON Safe-Lock Shingles have a top lock consisting of three thicknesses of sheet steel, so that they can easily withstand the strain due to shrinking of sheeting or setting of building.

No other shingles can have such a top lock, because this feature is patented by us. The top lock of most shingles isn't as strong as the side lock of ours.

Lightning causes the loss of thousands of dollars each year to Canadian farmers. With every PRESTON roof you get a FREE Lightning Guarantee which secures you against this terrible destroyer.

You do not get a Free Lightning Guarantee with other shingles. Neither do you get shingles safe-locked on all four sides. Nor shingles with the nailing fully protected against the weather. Nor shingles made according to British Government Specifications. Nor shingles so easy to lay.

We have just issued a new booklet "Truth About Roofing." We should charge something for this, as it contains information of real value to anyone who has a building to roof. But we will send it FREE as a reward to all who cut out, fill in and mail the coupon to us. Just you send it to-day.

METAL SHINGLE AND SIDING CO., LIMITED

Head Office, Dover Street Factory, PRESTON, ONT.
Branch Office and Factory, Montreal, Que.

PRESTON

SAFE-LOCK SHINGLES

Please send me your new booklet, "Truth About Roofing." I am interested in roofing and would like complete information about PRESTON Shingles.

Name _____
P.O. Address _____
County _____

Prov. _____

OUR FARMERS' CLUB

Contributions Invited.

PRINCE EDWARD ISLAND

KING'S CO., P. E. I.

CARDIGAN BRIDGE.—Farmers are not doing much work at present except attending to stock. The week is wintering well. Heavy snow falls and drifts have blocked the roads up badly, the trains having been stalled for a couple of days in the past two weeks. The winter steamers, the Earl Grey and Minto are doing fairly well on the Charlottetown-Pictou route. But, to have uninterrupted connections with the mainland during the winter we need a tunnel and will have it yet. There is a good coat of ice on the rivers and farmers will soon be digging oyster mud, which is a grand fertilizer, and is considered to be better than lime for our soil. Dressed beef is cheap, selling at 45¢ to 50¢ a lb. by the carcass; hides, 90¢ to 10¢ a lb. Pork is bringing from 9½¢ to 10½¢ a lb. by the carcass, or more properly speaking dressed.—H. W. P.

QUEBEC

MISSISSQUOI CO., QUE.

FRELIHSHBURG.—Good roads and fine weather made the holiday season pleasant and a considerable amount of visiting was done at that time. Winter work is progressing as the weather has been mild, except for a few days when the mercury fell some degrees below zero, and there is sufficient snow to provide good roads for lumbering and farm work. Hens are not laying very freely yet and the price of eggs keeps high, local prices being from 30¢ to 40¢ a doz. Hog manure is in demand and supplies small with prices at 88¢ to 82.25 a cwt. alive, and 81¢ a cwt. dressed. Beef in quarters sells for from 5¢ to 6¢ for front and 6¢ to 7¢ a lb. for hind quarters. Butter is selling at around 26¢ for creamery. Quite a number of farmers are selling their milk to a condensed milk company across the line and are receiving \$1.70 a cwt. for the milk at their door. A considerable quantity of hay has been brought in here already at from \$14 to \$14.50 a ton for No. 1. Bran has been selling at 82½ shorts at 824 to 825, and oil cake meat at 87¢ a ton. C. A. W.

ONTARIO

PETERBORO CO., ONT.

LANSWADE.—There is a great deal of lumbering going on this winter and as a result butter and beef are very high in price. Eggs are quoted at 26¢ a doz. Potatoes were a very large crop and are very low in price, being about 45¢ a bag. Timothy hay is worth about \$13 a ton; it was only a fair yield. Wages for laborers in the woods run from \$20 to \$25 a month. The winter has been mild with an occasional cold snap.—C.E.D.

The farmers of Peterboro County are to be congratulated on the fact of having located in their midst a branch office of the Ontario Department of Agriculture. Especially will they be privileged in having a three days' stock and seed judging course which is to be held in Peterboro January 24, 25 and 26. Short courses of a similar nature that have been held in other counties of the province, have proven very popular, and the attendance in several instances has over taxed the accommodation provided. Mr. H. C. Duff, representative for Peterboro County, has been successful in securing quarters for this short course which will accommodate 30 or 40 people. It is hoped that each and every farmer in the county who can possibly make it convenient to attend, will come to Peterboro and stay for the full three days of the course. Circulars and fuller information can be had on application to the representative of the Department at Norwood. Tell your friends about this rare privilege that is theirs, and get them to turn out one and all and let us show the Department that we appreciate this effort that is being put forth in our behalf.

WELLINGTON CO., ONT

MOUNT FOREST.—Farmers' Institute meetings are now engaging our attention. Very successful meetings have been held in East Wellington. Judging demonstrations in draught horses proved to be very interesting and profitable and attracted much attention. Mr. L. E. Scarnis of Scarborough gave very able addresses on the draft horse. The Women's Institute marshalled well. There is now a branch at each place where the Farmer's Institute meets. Both Institutes are working in co-operation and are accomplishing good results.—C. N.

MIDDLESEX CO., ONT.

LITTLEWOOD.—May are inquiring about cows. During late years the cow question is nearly always a live one, and at all sales they go with a vim. The farmers are making good use of the snow to do much tanning. Some are drawing legs others gravel; others again are storing ice, which is now about 15 inches thick, and a No. 1. This will be used next summer for cooling their milk.—J. E. D.

ELGIN CO., ONT.

SHEDDEN.—This is a good farming district, splendid land for hay and grass. The farmers are wintering large herds of cows, but are not fattening many as usual; the grain is too scarce for that. "Our only grain crop was wheat, and it was extra good in everyway," and is worth \$1.05 a bush. A resident to the writer. More cows are kept since the cheese and butter factory started operation; last spring. The farmers have found this a great benefit to them, and are going more and more into the production of milk. The factory is now making butter; some of the milk is separated at home, and those who have no separator bring all to the factory, and return with the skim milk for use at home.—J. E. O.

HURON CO., ONT.

GODERICH.—Although the crops were only average ones during the year just closed, the stockman selling his finished product in the shape of beef, mutton, milk, etc., looks back with a considerable degree of satisfaction on the returns and progress made during the year. Good prices have been obtained for all classes of stock and a better one looked for in the present year. With good horses selling at from \$200 to \$300, finished bullocks, 5½¢ to 6¢ a lb. hogs, 6¢ a lb., and dairy cattle and products proportionately high, it certainly means prosperity for the majority of farmers.—D. G. S.

BRUCE CO., ONT.

HEPWORTH.—So far we have had a very fine winter for those that are taking out logs and wood. The sawmills had more logs on the first of the year than they have had for a number of years at the same date. All kinds of logs are in great demand, but wood is very flat. Fat cattle are getting scarce and high in price. Very few are feeding any this winter as hay and grain is also high. Silos are very scarce around here. We farmers do not know the value of them yet.—J. E. L.

MUSKOKEE DISTRICT, ONT.

GRAVENHURST.—Winter has been very fine so far; not enough frost for bush work. Cattle are wintering well. Feed is scarce. Hay is \$10 to \$20 a ton, oats, 50¢ a bush; flour, 2.75 to 3.25 a cwt.; chop, mixed, \$1.60; bran, \$1.40; butter, 25¢ a lb.; eggs, 25¢ a doz; per carcass, 87¢ to 88.50 a cwt. pork, 89¢ to 91¢ a cwt. A lot of farm teams are drawing supplies to the winter camps.—B. L.

ALGOMA DISTRICT, ONT.

LIVINGSTONE CREEK.—We had a very late fall. Some plowing was done as late as Dec. 8th, and it has been knowing near every day since. We have had some very cold weather. It is a hard winter on a good many farmers, as feed has been very scarce. Good many have had to buy hay at \$30 and straw at \$10 a ton, and hard to get at that. Grain is high in price. Oats, 50¢; peas, 90¢; pork \$12 a cwt.; beef, 88¢; potatoes, 50¢ a bag. While some farmers find it hard to make ends meet, others are getting rich. We are badly in need of market in Thessalon, as those 20 and 30 miles from town have a better market at the lumber camps than we have near town. The Farmers' Institute are going to take it up and try to have a market started in Thessalon.—J. A. H.

MANITOBA

MARQUETTE CO., MAN.

KELLOE.—Genuine Manitoba winter weather has been with us for a month. New Year's morning was very cold, the thermometer recording on one morning as low as -47 deg. Cream from this district is shipped to the Shoal Lake creamery. The price last month was 25¢ a lb. for butter fat. Diptemper has been very common among the horses. It seems to be the worst number of horses that have ever died. The water question in Manitoba is getting to be a problem, and many have been hauling water in tanks for winter for their cattle. If any one should wish to see snow, they should take a jaunt up this way. It is about 3 ft. deep on the level. Farmers are greatly elated over the fact that the Manitoba Government are going to take over the elevators.—L. J. N.

LIVE HOGS

We are buyers each week of Live Hogs at market prices. For delivery at our Packing House in Peterborough, we will pay equal to Toronto market prices. If you cannot deliver to our Packing House, kindly write us and we will instruct our buyer at your nearest railroad station, to call on you.

THIS WEEK'S PRICES FOR HOGS DELIVERED AT FACTORY

\$8.60 a Cwt.
FOR HOGS WEIGHING 160 TO 220 LBS.

THE GEO. MATTHEWS CO., LIMITED
PETERBOROUGH, - HULL, - BRANTFORD

Ask your Dealer LIST Price

\$6.00



FAVORITE RIFLE

A beautiful example of careful accurate workmanship. The Only Boys' Rifle Used by MEN

Favorite barrels are rifled more accurately than many rifles selling as high as \$30.00. For this one reason alone more Stevens' Carvels are sold than any other rifle model in this country. This is because Stevens' careful, accurate rifling combines straighter shooting with long range and power.

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If you want expert information on Sharpshooting, Hunting or Trap Shooting write us a postal telling which subject interests you the most.

By return mail comes letter giving you this valuable information besides the big Stevens Gun Book—29 illustrations and 100 pages about Rifles, Shotguns, Pistols and Rifle Telescopes. Write today.

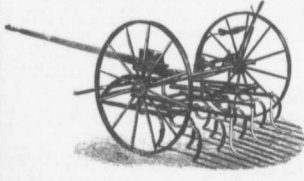
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START RIGHT NEXT SPRING

USE THE HAMILTON

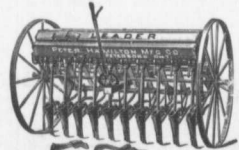
Elastic Cultivator

The easiest working, most satisfactory and successful Cultivator made.



Leader Drill

The strongest and lightest Drill built, an accurate sower and good crop getter. Hoe or Disc.



See Nearest Agent

THE PETER HAMILTON CO., Limited
PETERBOROUGH, ONT.

MARKET REVIEW AND FORECAST

Toronto, January 17th. — Wonderful prosperity exists on all sides. The banks in their annual statements show most encouraging figures. The only element to cause uneasiness is uncertainty as to the outcome of the tariff. Investors and investors and moneyed interests are afraid to do anything till the result is definitely known, and they can get a better view of the trend of affairs. A certain measure of uneasiness is evident in some classes of stocks.

Bond issues in Canada in 1909, amounted to no less than \$200,000,000, as against \$196,250,000 in 1908; 70 per cent. of this vast amount was invested by British capital. There seems to be every prospect of continued investments of British capital in this country.

WHEAT

The market on this side of the water was slightly unsteady the latter part of the week, owing to the decline of the Liverpool market. This decline, however, the following day by a rise of 1½d over the previous day's prices and the American and Canadian markets consequently were not appreciably affected. The visible supply of wheat at the various ports in Canada on Friday was 8,537,642 bush. Shipments in the Northwest have been exceptionally heavy. Winning in one day received 177 cars. There is a decline in the shipments from the Argentine, and the suspicion is that farmers are holding back, looking for higher prices in the immediate future. Attempts to bull the Chicago market have in consequence failed. May wheat rose to \$1.15½; July, to \$1.03½, and September to 9c. Local dealers quote prices as follows: No. 1 Northern, \$1.14; No. 2, \$1.12 on track, lake ports. On the farmers' market fall wheat is quoted at \$1.09 to \$1.10, and goose at \$1.04 to \$1.05 a bush.

COARSE GRAINS

Canadian western oats, No. 2, are quoted here at 42c; No. 3, 41c, on track; all rail, January shipment, No. 2, 42c; No. 3, 41c; No. 2, 35c to 37c outside; No. 3 white, 35c to 37c, according to quality, on track. On the farmers' market oats are quoted at 41c a bush. In Montreal the market is firm and sales range from 44c to 44½c on track. No. 2, 44c; No. 3, 43c. On the local market barley is quoted as follows: No. 2, 52c; No. 3, 50c; feed barley, 49c outside; Manitoba oats, 41c to 42c on track, according to quality. On the farmers' market barley is quoted at 41c to 42c a bush; peas, 77c; rye, 70c; and buckwheat 54c a bush. In Montreal the market is firm at prices ranging from 52c to

54c for feed barley, and 60c to 69c for barley for malting purposes. On the local market timothy is quoted at 52c to 67c for No. 2 quality; rye at 68c for No. 1; and buckwheat at 55c to 53c, outside; clover, No. 2 quality, 49c; and rye quoted at 51c in store; buckwheat, 52c and rye, 62c to 70c a bush.

HAY AND STRAW

Hay and straw are still commanding the same good prices that have prevailed for some weeks past. On the farmers' market the price for good timothy hay is 37½ to \$21; clover and mixed hay, \$19 to \$24; loose straw, \$8 to \$10; and straw in bundles, \$17 a ton.

In Montreal prices are fully maintained, there being an excellent demand from western houses. Timothy hay is quoted at \$10 to \$15.50, according to quality; clover mixed at \$9.50 to \$10; and straw in bales at \$1.50 to \$6.50, on track.

POTATOES AND BEANS

Potatoes still remain low in price, quotations being 45c to 50 a bag on track, Toronto, and 40c to 45c in store. On the farmers' market potatoes are quoted at 70c a bag. In Montreal the price is 60c to 65c. In Toronto, one dealer having made a purchase at the rate of 30c a bag. Quebecs are quoted at 25c to 30c; potatoes at 55c a bag; Green Mountains at 41c.

Beans remain stationary at former quotations, viz., primes at \$1.00 to \$1.30 a bush, and hocks at \$1.00 to \$1.25. Three-pound pickers in car lots have sold in the market there is nominal at \$1.90 to \$1.95.

EGGS AND POULTRY

There has not been as great a drop in eggs as seemed likely last week, the steady cold weather having had a good effect in all probability to do with the smallness of the supply. The market is steady at 55c a dozen for new laid, and 50c to 52c for old lots. On the farmers' market quotations are 50c to 55c a dozen for new laid and 30c to 35c for storage.

In Montreal the market is very light, sections selling for 26c to 29c in round lots, and 25c to 28c in broken lots. There is a great demand for new laid but the supply is by no means adequate; prices for fresh eggs are therefore at a high figure.

Poultry are still at a high figure in Toronto; wholesale quotations are as follows: Turkeys, dressed, 15c to 17c a lb.; and fowl, 12c; chickens, 15c to 17c; and fowl at 9c to 10c a lb. In Montreal turkeys are quoted at 20c to 21c; geese, 14c to 15c; ducks, 15c to 17c; and fowl, 10c and 11c a lb. The receipts there continue to be very light and the demand heavy.

APPLES

Periodicals still continue to voice the complaints of English importers in regard to the disgraceful quality of many of the shipments, many of them being returned to the sender on condition only if they refused to take them. It is to be hoped that this sustained agitation will have the effect of rendering the market more strict in the ensuing season. English importers do not grow unless there is good cause for it, and many of the rebels at the present time are thought of committing one's own country, the fact remains that an evil in order to be removed must be punished so that many may not be punished for the backsliding of the few.

The prices on the local farmers' market are unchanged from those current for the last few weeks, viz., \$1.50 to \$3, and \$3.50 a barrel. Wholesale quotations also are about the same.

In Montreal also about the same prices prevail as were current last week.

DAIRY PRODUCTS

There is no noticeable change in the price of butter, the prices being as follows: Creamery, 28c to 29c; separator prices, 25c to 26c; dairy, 25c to 26c, and storage, 22c to 24c a lb. On the farmers' market butter is quoted at 24c to 26c, and second quality at 20c to 27c a lb. In Montreal prices remain unchanged, but the local demand for Canadian products has fallen off owing to a drop in home prices. Creamery is quoted at 24c to 26c; separator at 22c to 23½c a lb. On the Toronto market cheese is quoted at 15c a lb. for large and 13½c a lb. for twins. In Montreal

eastern cheese is quoted at 11½c and western at 12c a lb.

SEED PRICES

Seed prices are as follows: No. 1 alkali is quoted at \$6.15 to \$6.35; No. 2, \$5.60 to \$5.85; No. 3, \$5.25 to \$5.50 a bus. Red clover No. 1, \$7.75 to \$8.00 and timothy, last quality, at \$1.40 to \$1.60 a bus.

FEEDS.

Bran is quoted as follows: \$22 in car lots on track; ship, 23c; bags included in both cases. In Montreal the prices are \$21 to \$22 for Ontario bran and \$21 for Manitoba. Manitoba shorts are quoted at \$22 to \$23.

HORSE MARKET

There is very little local demand for horses, most of the demand being for brisb, being for animals for outside points. Heavy draft horses rule at \$175 to \$200; express horses, \$175 to \$200; drivers, \$95 to \$140, and serviceably sound horses at \$30 to \$75.

LIVE STOCK

There is great activity in the cattle trade and excellent prices are being realized. On Thursday and Friday of last week there was a run of 142 cars from St. Lawrence marsh which contained 1940 cattle, 1092 sheep and lambs, 1700 hogs and 164 calves. One load of choice cattle sold for \$8.85, the best item of importance, however, is the splendid price that hogs are fetching, quotations being from \$14.00 to \$16.00 a cwt. for f.o.b., and \$8.70 fed and watered here. Most of the sales of all classes of live stock are in the direction of the market, the demand in this direction being so keen as to leave few animals for export. In this connection it might be interesting to state that there is a report that the Government should the Liberal Government be returned to power in England the embargo on Argentine cattle should be removed. It will probably be followed by the removal of the embargo on Canadian cattle.

The prices at present ruling for cattle on the local market are as follows: Export, \$5.50 to \$6; medium, \$5 to \$5.25; bulls, \$4 to \$5; repeaters, \$4.50; heavy feeders, \$3.50 to \$4.25; hogs, \$7.75 to \$8; choice hogs, \$8.75 to \$4.50; light hogs, \$2 to \$3.25; canners, \$1.50 to \$2.25; milkers, \$45 to \$50; sows, \$10 to \$12; 8 to 840; springers, do; calves, \$3 to \$7.50; ewes, \$4.25 to \$4.75; lambs, \$6.50 to \$7.10; bucks, \$3 to \$3.50; goats, \$9.45; hogs; fed and watered, \$8.70.

MONTRÉAL HOG MARKET.

Montreal, Saturday, Jan. 15th. — The supply of live hogs on this market was rather light this week as there was a keen demand from all sources, prices have been advanced again, and sales were made freely this week at \$9.50 a cwt. for selected lots weighed off cars.

The demand for dressed hogs is very good, and prices being quoted at \$12.50 a cwt for fresh killed abattoir stock.

PETERBORO HOG MARKET

Peterboro, Jan. 17. — Danish hogs delivered in England last week totalled 22,000. The demand for bacon in the Old Country is only fair. Deliveries on the local market are very light. The George Matthews Co. quote the following prices for this week's shipments: f.o.b. country points, \$8.40 a cwt; weighed off cars, \$9.50 a cwt; delivered in Montreal, \$8.60 a cwt.

EXPORT BUTTER AND CHEESE


Montreal, Saturday, Jan. 15. — The improved demand for cheese noted last week has continued the same. Prices have been marked up all around about 5c a lb. over those current last week. Finest and medium grades are quoted at as high as 12½c a lb. for finest September and early October make, although a few late orders are being placed at about 12c a lb. The demand is chiefly for white cheese, of which the supply is small, an unusually large proportion of the stock of cheese manufactured in Montreal. There is practically no Quebec cheese available on this market, the most of this grade having been shipped last week.

Shipments have been fairly heavy this week, and the total will probably show a slight increase over last week. The Montreal Stocks will show a substantial reduction at the end of this month, and if the price of butter and cheese will be practically no cheese left here unsold at the end of January.

The market for butter is steady with prices unchanged since last week. There is a good demand from the local trade, and also from outside points but the demand from the export market has stopped completely owing to the drop in the butter market across the line, where prices have been steadily falling during the past few days. The market in Montreal, however, is steady, with fancy June made creamery quoted at 26c a lb. in solids,

Warranted to Give a Satisfaction

Gombault's Caustic Balsam



Has Imitators But No Competitors.

A Safe, Effective and Positive Cure for
Cuts, Burns, Swellings, Gout, Sticks,
Strained Tendons, Sprains, Wink
Puffs, and all lameness from Sprains,
Blisters and other like tumors.
Cures all skin diseases or Parasites,
Such as Ringworm, Scabies, and
Bunions from Horses or Cattle.

As a Human Remedy for Rheumatism,
Griping, Stiffness, St. Vitus's Dance,
or any form of Caustic Balsam sold is
everywhere the best. It is sold in
every bottle. Sold by Druggists, or sent by
postage, always in the original wrapper,
with full directions and a complete
testimonial, etc. Address:

The Lawrence-Williams Co., Toronto, Ont.

prints being quoted at 2½c a lb. more. October butter can be picked up in small quantities at about 25c a lb., with winter creamery quoted at 24c to 24½c.

GOSSIP

The annual meeting of the Canadian Shire Horse Association will be held on Tuesday, Feb. 1st, at 4 p.m., in Room G, King Edward Hotel, Toronto.

A branch of the Traders' Bank of Canada has been established at the Union Stock Yards, Toronto, and will be open for business on market days. Drivers may exchange their cheques at the branch for safety cheques payable at their home towns.

Some exceptionally fine calendars and posters were recently received from the International Harvester Company of Chicago. Farm and Dairy readers wishing to secure some of these, or copies of the interesting little book, "Glimpses of Thirland," can secure same by writing to the nearest Canadian agency of the above company, and mentioning this paper when writing. The names of these agencies are given in this issue for list of Canadian agencies.

The bulls offered by Mr. O. A. Brethen are bred by "Butler Boy Calumny Imp." son "De Kol 2nd's Butter Boy 3rd." one of the best sons of "De Kol 2nd." (Queen of the Breeds). His dam is by "Calumny Jane Paul," (greatest A. R. O. son of Calumny Jane, Famous Ontario Dairy Test winner.) Their dams are good cows.

FOR SALE AND WANT ADVERTISING

TWO CENTS A WORD CASH WITH ORDER

FOR SALE—Up-to-date cheese factory plant in first-class condition. Capacity twenty cheese days, or full particulars address Box 55, Farm and Dairy.

WANTED — CREAMERY — An experienced creamery man of good financial standing seeks information regarding a community that might prove a profitable farm or creamery. Address, Box M, Farm and Dairy.

FOR SALE—Creamery for \$2600. Good building, increasing business. Very light position; money maker. Western Ontario, 3000 customers. Write to write unless you want buy. Box D, Farm & Dairy, Peterboro, Ont.

WANTED—Sickness in the family having forced me to write to you as a farmer, which he has made great success. He is open to accept a position as Farm Manager. Best of references. Vol. 25, Farm and Dairy, Peterboro, Ont.

AGENTS make big money selling "Hol-Peak" Granite Cement. Mends holes in Granite, Iron, Agate, Tinware, etc. Mends holes in one minute. Every housewife buys. Greatest seller on the market. Agents make over 100 per cent. profit.—M. Reiter, Westmont, Que.

AYRSHIRE BULLS

From qualified Record of Performance Cows.
One calved October 30th, 1909, whose dam has a record of 5,251 lbs. milk, averaging 4 per cent. butter fat. Also a bull calf from the same dam, calving 1909, and having a record as a two year old of 6,442 lbs. milk, averaging 4.1 per cent. of cows given at sale.
(Phone.)
W. W. BALLANTYNE, Stratford, Ont.

DISPERSION SALE—HOLSTEINS

We will sell by public auction at our farm, 2½ miles from Tyrone, Ont., on
WEDNESDAY, JANUARY 26,
Our herd of 17 grade Holstein cows and 10 spring calves, 1 winner of 3rd prize in 1907 herd competition. A cow of cows given at sale.
Trains met at Villa Nova and Jarvis. Terms Cash.
Wesley Almas, Auctioneer.

MASON BROS., Tyrrel, Ont.

HILL CREST HOLSTEINS

Horwood, Ont. (Peterborough Co.)
Five nicely marked Holstein Bulls for sale. Bred and priced right. Sired dams with exceptionally good udders and teats.
Pontiac Pleistone, a very fine, very hard bull, "Pontiac Hermon," has just held a splendid official record of 2,940 lbs. milk in 340 days, and has a record in above period. This record of production is unapproachably an cow of cow bred under like conditions. See our kind before buying. Visitors met at R. H. connections good. Write.
G. A. BRETHEN, Prop.

\$532,992,100!!

That's the Value of Farm Products for Canada 1909— Isn't it Great?

OTTAWA, ONT.—An increase of \$100,000,000 in the value of Canadian crops is shown in the final estimates of the 1909 production just published by the Dominion Census Department. An area of 30,065,500 acres of field crops has yielded a harvest which computed at market prices, has a value of \$532,992,100, as compared with \$432,534,000 for 27,560,963 acres last year. Canada's principal crops are wheat, corn, oats and barley. This year they aggregate 18,167,000 acres, and in value \$263,710,000. Next 16,307,100 acres and \$209,070,000 in value. Hay and clover 8,210,000 acres have a value of \$126,287,700, against 8,210,000 acres and \$121,884,000 in 1908.

Rye, peas, buckwheat, mixed grains and flax, grown on 1,487,311 acres have a value of \$51,071,000, as compared with 1,529,000 acres and \$23,044,000 in 1908. The total value of what harvested in the Northwest provinces is \$160,000,000, as compared with \$72,429,000 and \$18,804,000 last year. It is a showing that every citizen is proud of, whether he had a hand in the production or not. The most gratifying story told by these figures is the steady increase in gain over the previous year of \$100,000,000.

We are going ahead—going ahead rapidly. That is the best assurance we get either from this report or our results for 1910. But, instead of being content with these figures let us take three things as an indication of what our real possibilities are, and let us use them for us as a mile post in our climb to better things.

Let each of us, for instance, look back over our operations of 1909 to determine what we did or not we did our share toward making this showing possible.

We ought to stop and think of what has made the gains of former years possible. We must stop to realize that this gain of \$100,000,000 for 1910 is not due to more land under cultivation; but has been brought about by better methods of cultivation; by better methods of growing and sowing the grain and harvesting the crops.

Without the wonderful strides made in the development of the science of sowing the grain and harvesting the crops, \$532,992,100 crop would be entirely out of the question.

And yet there is room for progress—the rules of 1909 farming are not the rules for 1910. New machines mean new advances and new ways. Do you keep abreast—do you posted about these things?

About traction plowing—how to plow more acres, in less time, with less expense, for better, bigger returns:

How a good tick harrow will enable you to make better seed beds.

Why it is to your advantage to spread manure the right way—as soon as you get it—instead of spreading it after half its value is gone.

Why it will pay you to use seeding machines that put the seed into the soil so that the best germination is assured and big crops result.

About the money-saving and money-making advantages of having a good, reliable, dependable gasoline engine on your place.

What the right kind of milk separator means to you in increased milk and butter profits—and milk calves.

Why a good feed-grinder means fatter stock. How to increase the value of the 1910 hay crop by using a better mangle, baler, etc.: How to know all about the best feeding machines. How to know the best marks of a good wagon.

Any of these will help you please secure a copy of our book—"Glimpses of Thriftland." That is the book that holds the key in brief and in verses that you'll like. Then we have some books that are still more business-like—the Farm Almanac and the International Harvester Company of America's listed below.

There is an international dealer near you. He will be glad to see you to hand you one of our new 1910 calendars, posters, catalogues or pamphlets on how to farm and having machines and tools, and tillage implements or any of the machines mentioned above.

CANADIAN BRANCH: Toronto, Ottawa, Calgary, Edmonton, Hamilton, London, Montreal, Oshawa, Regina, Saskatoon, St. John, Winnipeg, Yorkton.

Agents for a still bigger showing in 1910

Prosperity through the

INTERNATIONAL HARVESTER COMPANY OF AMERICA (Incorporated)

CINCAGO, U. S. A.

with nicely shaped udders, and they are strong in the blood of Bouje—20.78 lbs. milk in one year; Belle Marcelline—23.169 lbs. milk and 90.2 lbs. butter in same time; De Kol 2nd, Pieterie 3rd and other great cows of the Hiltner Farm. This Farm is only one mile from station; train connections are good for visitors from either east or west. All enquiries cheerfully and promptly answered.

J. A. CASKEY'S DISPERSION SALE.

An exceedingly choice lot of Holstein-Friesian cows and calves. A number are to be sold by public auction at Madoc, Ont., March 25, 1910. Over 140 head, including the great bull, Sara Jewel—25.2 lbs. butter, 10 lbs. dam and her mate sold for \$15.00, will be offered without reserve. Catalogues will be ready March 1st. Further particulars will be published in these columns later.

HOLSTEIN-FRIESIAN NEWS

Farm and Dairy is the official organ of The Canadian Holstein-Friesian Association. Those who are interested in readers of the paper. Members of the Association are invited to send their items of interest to Holstein breeders for publication in this column.

OFFICIAL RECORDS FOR DECEMBER.

Francy 3rd (6220) at 5 yrs. 2 months, and 13 days of age, 23.32 lbs. butter fat, equivalent to 26.6 lbs. butter; 659.89 lbs. milk. Owned by D. C. Platt & Son, Millgrove, Ont.

Helle Dewdroon (4083) at 8 yrs. 1 month, 20 days of age, 20.52 lbs. butter fat, equivalent to 23.6 lbs. butter; 574.68 lbs. milk. Thirty day record, 82.56 lbs. butter fat, equivalent to 96.24 lbs. butter; milk, 2345.75 lbs. Owned by E. Laidlaw & Sons, Aylmer, Ont.

André 6th Mink Mercedes (4231) at 7 yrs. 6 months, 2 days of age, 15.93 lbs. butter fat, equivalent to 18.59 lbs. butter; 510.50 lbs. milk. Owned by T. H. Dent, Woodstock, Ont.

Colantha Queen De Kol (6819) at 7 yrs. 7 months and 9 days of age, 15.92 lbs. butter fat, equivalent to 18.58 lbs. butter; 569.9 lbs. milk. Owned by M. H. Haley, Springfield, Ont.

Johnnie Mabel Wayne, (6145) at 5 yrs. 6 days of age, 14.86 lbs. butter fat, equivalent to 17.34 lbs. butter; 405.9 lbs. milk. Owned by J. A. Caskey, Faldreth, Ont.

Natoye De Kol (10978) thirty day record, at 5 yrs. 9 months, 8 days of age, 84.94 lbs. butter fat, equivalent to 99.11 lbs. butter; 2199.49 lbs. milk. Owned by J. W. Stewart, Lvn, Ont.

Iantha Jane McElchthide 3rd (5530) at 4 yrs. 31 mos., 27 days of age, 17.78 lbs. butter fat, equivalent to 20.75 lbs. butter; 528.1 lbs. milk. Owned by M. H. Haley, Springfield, Ont.

Elloroe (6599) at 4 yrs. 2 months and 6 days of age, 17.40 lbs. butter fat, equivalent to 20.39 lbs. butter; 400.5 lbs. milk. Owned by James Bettie, Norwich, Ont.

Lins Netherland Aabekers (12158) at 4 yrs. 10 months and 20 days of age, 16.37 lbs. butter fat, equivalent to 19.4 lbs. butter; 432.5 lbs. milk. Owned by H. Boller, Saskatoon, Ont.

Pudmina Hartog De Kol (12159) at 4 yrs. 5 months, 11 days of age, 14.40 lbs. butter fat, equivalent to 16.7 lbs. butter; 432.5 lbs. milk. Owned by H. Boller, Saskatoon, Ont.

Queen Butter Baroness (7652) at 5 yrs. 2 months, 16 days of age, 18.53 lbs. butter fat, equivalent to 22.28 lbs. butter; 424.4 lbs. milk. Owned by M. H. Haley, Springfield, Ont.

Annie May Schulling (8092) at 3 yrs. 6 months, 23 days of age, 15.74 lbs. butter fat, equivalent to 18.23 lbs. butter; 389 lbs. milk. Owned by Frank J. Griffin, Burgessville, Ont.

Jennie Mutual Butter Girl (7056) at 3 yrs. 7 months of age, 15.00 lbs. butter fat, equivalent to 15.7 lbs. butter; 462.4 lbs. milk. Owned by Thos. Davidson, Spring Valley, Ont.

Jewel Mercedes Mercedes (8047) at 3 yrs. 2 months and 4 days of age, 15.25 lbs. butter fat, equivalent to 15.25 lbs. butter; 372.5 lbs. milk. Owned by Frank J. Griffin, Burgessville, Ont.

Olive Schulling Posh (6960) at 3 yrs. 3 months, 26 days of age, 12.83 lbs. butter fat, equivalent to 14.97 lbs. butter; 313.4 lbs. milk. Owned by James Bettie, Norwich, Ont.

Dry De Kol Wayne (7777) at 3 yrs. 11 months and 12 days of age, 14.7 lbs. butter fat, equivalent to 14.74 lbs. butter; 369.2 lbs. milk. Owned by Walburn Rivers, Faldreth, Ont.

(To be continued)

AVONDELA HOLSTEINS

Offers for sale high class Holsteins, all ages. Herd headed by Prince Hengerveld Pieltzi, son of Pieltzi 2nd & Woodcock. Laid-out of Princess Hengerveld, a daughter of Hengerveld De Kol with record of 24.4 lbs. butter at 20 months. We also offer some fine young Yorkshire pigs of choice breeding. E. T. F. ARTHUR C. HARDY, Brockville, Ont.

MISCELLANEOUS

TAMWORTH AND BERSHIRE SWINE—Large and small. Apply to W. Todd, Corinth, Ont. Maple Leaf Stock Farm.

SUNNYSIDE STOCK FARM

Choice White Swine, Shropshire Sheep and Mammoth Bronze Turkeys of the choicest breeding for all climates. Apply to W. E. WRIGHT, O.3-10 Glanworth, Ont. Proprietor

NTHISE FARM, Herd of Large English Berkshire, South-down Sheep and Silvery-grey Dorking Fowl. A number of young here fit for service; also a few ready to breed; also young pigs. A choice of Shropshire and Berkshire (100) each. None but first class registered stock sent out. Satisfaction guaranteed.

E. E. MARTIN, Manning P.O., Paris Station, Oxford Co., Ont.

AYRSHIRES

Ayrshires of the right stamp for production combined with good type and quality. Write for prices. R. M. HOWDEN, St. Louis Station, Que.

AYRSHIRES.—Record of Performance work a specialist; young bulls from 2 of B cows and cows that will go on at next freshening. Milk reports of dams, for everything. JAMES BEGG, Box 86, St. Thomas

FOR SALE—AYRSHIRE BULLS

From one month to two years old; all bred from large, good-milking cows. Also Yorkshire sires of the best known type. DANIEL WATT OR TO M. W. OWENS, Manager, Proprietor, 125-127 Riverside Farm, Montebello, Que.

"La Bois de la Roche" Stock Farm

Here are kept the choicest strains of AYRSHIRES, imported and home bred. YORKSHIRES of the best known type. WHITE ORPINGTON, WHITE WYANDOTTES and BARRED Rock Ponies. HON. L. J. FORBES, J. A. NISBET, Proprietor, St. Anne de Bellevue, Que. R-5-35-10

SPRINGHILL AYRSHIRES

Imported and home bred stock 2 to 4 years of age for sale. See our stock at the following shows this fall. Write for prices. ROBT. HUNTER & SONS, Maxwellville, Ont. R-7-4-10 Long Distance Phone.

IMPORTED AYRSHIRES

Having just landed with 50 head of choice Ayrshires, purchased at the great Barcheval sale, I am prepared to fill orders for heavy cows in Scotland; 12 fit for service to choose from. Also show females of all ages, some with milk records up to 70 lbs. per day. Write and let me know your wants. Lowick, Que. R-5-35-10

STADACONA FARM

Show Record for 1909 At Three Rivers, Quebec's Provincial Exhibition, at Sherbrooke, Canada's Great Eastern Show, at Ottawa, the Dominion's large Central Fair at Barton, Ver. U. S. A., and at Quebec, my Ayrshires won 1st prize in the Dairy class and a FIRST PRIZES THAN ALL OTHER EXHIBITORS COMBINED. Cattle of both sexes and all ages for sale at very reasonable prices. O-6-9-10 GUS. LANGLIER, Stadacona Farm, Cap Engrt, Que.

CHEERY BANK STOCK FARM

FOR SALE—Bull calves, sired by North-erly Millbrook, the champion bull sired by Morton Mains Quechey, Junior champion at the Dominion Show, and North-erly Dost 3rd, a grand imp. heifer, and Dost 3rd, also famous bull sires. Satisfaction guaranteed. Nothing but the best, is our motto. Visitors welcome. R. D. McARTHUR, 1000 Georgetown, Howick Station, Ont. R-5-10-10 Que.

HOLSTEINS

MAPLE LEAF STOCK FARM

GORDON H. MANHARD, Manhardt, Ontario

Breeder of Holstein and Friesian Cattle.

At present I will sell 20 young cows, due to freshen in the early part of the winter. Also a few young bulls. E-11-10

FOR SALE, HOLSTEIN BULL CALF

Born, Dec. 3. Dam's official record at three years old, 43 lbs. of milk and 21 lbs. of butter. Bull calf, born March 18th, dam Canada's champion cow of her age, official record at two years, 43 lbs. of milk and 20 lbs. of butter. E-11

DAVID GAUGHELL, Yarmouth Centre, Ont.

RIVERVIEW HERD

FOR SALE, 2 Bull Calves, sired by Sir Angus Lewis Regis, of King Regis, whose greatest 5 year old sire, dam Angus Lilly Pieterie Paul, champion Jr. 4 year old—24 lbs. butter 7 days. Dam of calves a 20 lb. 2 year old, and 23 lb. 4 year old. Price reasonable considering breeding. P. J. SALLEY, Lachne Rapids, Que. E-10-6-10

LAKEVIEW HOLSTEINS

Herd headed by Count Hengerveld De Kol, son of Pieterie Hengerveld's Count De Kol, who has averaged 24 lbs. of milk over 30 lbs. the butter in 7 days and whose dam (26 30 lbs. in 7 days) has a daughter with a record of over 20 lbs. in 7 days. Five bull calves from 9 months old down from this sire are on sale. W. H. Hill and Hamilton Radial close to farm. Visitors met by appointment. E-11

E. F. O'BLEN, Bronte, Ont. E-TF

HOLSTEINS

SUNNYSIDE OFFERS a choice lot of young cows and heifers. Lowest prices; best breeding. Can furnish car load. E-5-6-10

A. D. FOSTER, Hallowell Sta., G.O.R.E. Bloomfield, Ont.

LYNDALE HOLSTEINS

Head your herd with a son of Sara Hengerveld's whose dam was recently sold for \$2000.00. Heaver and milked 23 lbs. butter each in 7 days. Only 20 lbs. of milk for milk. We will have a few sons of Count De Kol Pieterie Paul, and a number of Heifers for sale. e-1-27-10

ARROWBROOK, Ont. Ont.

HOMEBRED AND IMPORTED HOLSTEINS

We must sell at least as good cows and heifers. Lowest prices; best breeding. Can furnish car load. H. E. GEORGE, C.R.P.O.N. E-4-21-10

THE SUMMER HILL HEAD OF HOLSTEINS

Is making some wonderful Records. This year it has produced the champion Canadian bred butter cow for 7 days record 29 1/2 lbs. also the champion 5 year old of Canada, for yearly production. We have some younger ones, and better prices to be had. Write for good. We have ten fine heifers, all in calf to an imported cow. Come and make your selections at O.C.I.A. Prices are right and everything guaranteed. Write for particulars. D. C. FLATT & SON, Millgrove, Ont. Farm Phone, No. 3471 Hamilton.

HOLSTEINS

WINNERS IN THE RING Gold Medal herd at Ottawa Fair and

WINNERS AT THE PAIR

See Our A.R.O. Records Just the kind we'll want. They combine CONFORMATION and PRODUCTION

Bull and Heifer Calves for Sale from Our Winners

"LES CHENAUX FARMS"

Vaudreuil, Que.

Dr. Harwood, Prop. D. Eden, Ms

40 Million Square Feet of Oshawa Shingles

Cover Canadian Roofs Today

A ROOF 18 square is 10 x 10 ft.—100 square feet. There are 40,000 such squares of Oshawa Steel Shingles in use to-day in Canada. Enough steel, that, to make a pathway a foot wide and 7,576 miles long. Almost

THEY KEEP ON SELLING BECAUSE THEY MAKE GOOD

thrice the length of the C.P.R. tracks. Nearly enough to roof in a thousand acres of land! And the greater part of those Oshawa Shingles will be right on the job, good, weather-tight, rain-proof roofs, when your grandsons are old, old men. They are good for 100 years.

This is the One Roofing It Pays Best to Buy

Figured by price-cost, "Oshawa" Guaranteed Steel Shingles are as cheap as the poorest wood shingles. Figured by service-cost—the length of time they will make even a passably good roof—wood shingles cost Ten Times as much; slate costs six times as much; and the stuff they call "ready roofing" costs Thirty-Three Times as much! These are facts. They can be proved to you. Proved by figures; by the experience of hundreds of other people who doubted at first, just as you perhaps doubt. Proved, absolutely! You want that proof before you roof. Get it! Send for it to-day.

No Other Roofing Does This

Stays rain- and snow- and wet-proof for fully a hundred years. Absolutely fireproofs the top of the building for a hundred years. Protects the building from lightning for a hundred years. Resists the hardest winds that blow for a hundred years. Keeps the building it covers cooler in summer, warmer in winter, for a hundred years. Gathers no moisture, and never sweats on the under side for a hundred years. Needs no painting, no patching, no care nor attention for a hundred years. **WHAT MORE CAN YOU ASK OF A ROOF?**



The picture above, on the right, shows the new Spanish pattern Oshawa Galvanized Steel Shingle (Guaranteed). That on left is the standard pattern.

Probably 1835 seems a long way off to you. By that time, I suppose, aeroplanes will be as numerous in the skies as steamers are on the seas now. I don't believe the fall of an aeroplane upon it would harm a Pedlarized-roof.

Yet, when 1835 begins the guarantee that goes with every square foot of my shingles will still have twelve months to run.

You may not be around then. I may not be here. But this powerful Company I head will be doing business; and the price of putting a new roof on your building will still stand as a mortgage upon our assets.

Understand me clearly:

If the Oshawa-shingled roof you put on this year falls—even on the last day of 1835—to make good to the letter the plain promises of our Guarantees, there's a new roof for nothing going on that building just as soon as we can get a man there.

Think that over for a minute. Think if it isn't a pretty clear evidence of merit in roofing.

That is what I call making good with Oshawa shingles. That is what you pay five cents per year per square for. Seems to be worth the money, doesn't it?

P. A. Pedlar

It Will Pay You To Pedlarize All Your Buildings

"To Pedlarize" means to sheathe your whole home with handsome, lasting and beautiful steel—ceilings, side-walls, outside, roof. It means to protect yourself against cold; against fire; against much disease; against repairs-bills. Ask us and we will tell you the whole story. Just use a postcard and say: "How about Pedlarizing my house?" State whether brick or frame. Write to-day.

ADVERTISING alone never sold that vast area of Pedlar Shingles. Smooth salesmanship never kept them selling; nor glib talk; nor

THEY DO ALL WE SAY THEY WILL AND MORE TOO

lying abuse of competing goods; nor cut price. Those things do sell shingles, right here in Canada's roofing trade. But Oshawa Shingles sell, and keep on selling, for a different reason. They make good. They keep out the wet, year after year, as we say they will. They protect buildings from fire and lightning, as we say they will. They make good.

This is the One Roofing That is Guaranteed

Some makers of 'metal shingles' (ever notice how careful they are to avoid saying steel?) point with pride to roofs of their 25 years in service. BUT THEY DON'T GUARANTEE their shingles for 25 years to come. You buy Oshawa Steel Shingles—the only kind that IS guaranteed—upon the plain English warranty that if the roof goes back on you in the next quarter-century you get a new roof for nothing. You can read the Guarantee before you decide. Send for it. See if it isn't as fair as your own lawyer would make it on your behalf. Isn't that square?

Book and Sample Shingle Free

Send for free book and free sample of the Oshawa Shingle itself. It will interest you to study it. You will see the actual construction. You will see that the Pedlar Improved Lock, on all four edges of the shingle, makes it certain that moisture never can get through any Oshawa-shingled roof. You will see how the Pedlar process of galvanizing drives the zinc right into the steel so it never can flake off. You will be in no doubt about which roofing after you have studied this shingle.

Send for it and the book and Guarantee. Send for them now.

The PEDLAR PEOPLE of Oshawa

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42-46 Prince William St.
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REGINA
1901 Railway St. South

OTTAWA
423 Sussex St.
CALGARY
215 12th Ave. W.

TORONTO
111-113 Bay St.

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LONDON
86 King St.

CHATHAM
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WRITE FOR DETAILS.

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