

FARM AND DAIRY & RURAL HOME



DEVOTED TO
BETTER FARMING
AND CANADIAN
COUNTRY LIFE



Toronto, Ont., February 28, 1918

Comm. of Conservation
Asst. Chairman Jan 19



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It does its work easily and capably, because every known improvement has been combined with great strength to make the Page Wood Saws the most perfect one obtainable.

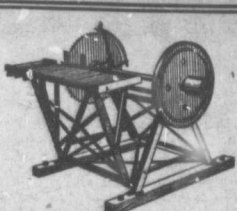
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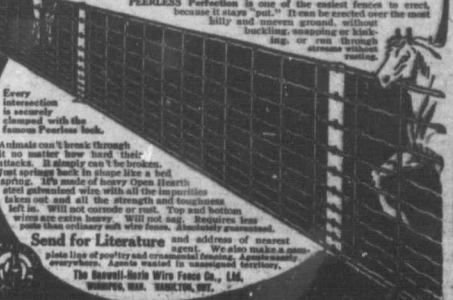
YOUR FREE. We will send you one of these lamps free of charge. It is the most economical, the most reliable, the most beautiful, the most convenient, the most durable, the most perfect of all lights.

130-Egg Incubator and Brooder for \$13.00

130-Egg Incubator and Brooder for \$13.00. This is a wonderful machine that will incubate 130 eggs and brood 130 chicks. It is the most economical, the most reliable, the most beautiful, the most convenient, the most durable, the most perfect of all machines.

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For the Big Ranch, or the small farm, put up a fence that will last a lifetime, that does not serve only as a mere boundary line, but one that gives real fence service—one that is built strong enough to withstand the onslaughts of stock as well as the ravages of all kinds of weather.



Send for literature and address of nearest agent. We also make a name of the City of Hamilton, Ontario. The name of the City of Hamilton, Ontario. The name of the City of Hamilton, Ontario.

Better Price for Cheese Seems Assured

Dairy Delegation Receives Favorable Reception. Hon. T. A. Crerar and British Government Representatives Speak Encouragingly. Price of Condensed and Powdered Milk to be Regulated.

Several hundred dairy farmers who waited on the Dominion Government in Ottawa on Feb. 21 to ask that the price paid for cheese this year be advanced in proportion to the advance that has taken place in the cost of production, received a most encouraging response on the part of the government and of the representative of the British government who also was in attendance. Not only did Mr. Mills, representing the British Food Control Board, which has been charged this year with the responsibility of purchasing all the food products for the British government, intimate that he hoped that the price paid this year would be as satisfactory to the dairymen as the close of the season as they told him last year's prices had been, but he made the announcement that the British Food Control Board in setting the price for cheese this season, will also be prepared to deal with the price that will be paid for the products of the condensed milk factories and powder factories. In doing this they propose seeing that there will not be the same disparity in prices that has prevailed during the past two years. This announcement was welcome news to the representa-

very best type of dairy farmers. Large delegations were present from Ontario as far west as Hastings and Prince Edward. The dairymen of Western Ontario were represented by Jas. Donaldson, of Atwood, president and J. N. Page of Ashboro and Frank Boyce of Dorchester, directors of the Western Ontario Dairymen's Association and who has been elected to that association to act. The Eastern Ontario Association did not act officially, although its president, secretary and several directors were present and took an active part in the proceedings. Much of the credit for the success of the meeting must be given to Mr. J. A. Campbell, of Ormond, and recently a director of the Eastern Ontario Dairymen's Association, who made most of the arrangements for it and who, with the assistance of Mr. T. A. Thompson, of Almonte, the secretary of the I.C.A., met in Ottawa the day before and in conjunction with several other leading dairymen prepared the memorial which was submitted in type written form to the government. This memorial was discussed and approved at a large meeting of the delegates before it was presented before Hon. Mr. Crerar. Mr. Campbell presided throughout.

Have You Used Substitutes For Corn In The Silo?

As yet Canadian farmers are without seed corn for the 1918 crop. There is just a possibility that many farmers will be disappointed in getting a supply, and will have to rely on substitutes. Have you used substitutes for corn in the silo? Have you had experience with oats and vetches, red clover, sweet clover or alfalfa, as silage crops? If so you will confer a favor on our readers by writing the Farm and Dairy of your experience, giving such details as stage, percentage, stage of maturity when cut, and precautions to be observed in filling the silo. For all such letters Farm and Dairy will pay regular "benefits" rates. The benefits of your experience may be needed by thousands of dairy farmers this spring. Let us hear from you. Address, Editor, Farm and Dairy, Peterboro, Ont.

tion of the cheese industry, but may prove a setback to the patrons of milk condenseries and the powdered milk factories. In this connection it should be noted that the delegates who visited Ottawa did not ask or intimate in any way a desire that action should be taken by the government. It was their feeling that they should not interfere in the matter of the price being paid other dairy farmers for their milk. The announcement was made voluntarily by Mr. Mills on behalf of the British Food Control Board.

Farmers Will be Consulted. In addition to the foregoing announcements Hon. Mr. Crerar stated that the government will see that the dairy farmers are represented this year on the Cheese Commission, which will conduct the negotiations with the British government for the purchase and handling of the cheese. In making this announcement Hon. Mr. Crerar gave a further indication of what appears to be his declared policy of giving farmers full representation on commissions and an opportunity to make their influence felt in matters of policy affecting their welfare, instead of leaving these matters to be handled entirely by men not directly engaged in agriculture as has been the prevailing custom in the past.

A Patriotic Move. The members of the delegation in presenting their case emphasized the point that they did not desire to take advantage of existing conditions to force the British government to pay an unduly high price for cheese in this connection it was pointed out in the memorial (which is published in full on page 12) and also by the speakers on behalf of the dairymen that the only reason which led them to apply for an increase in price was the fact that since the price was set at the beginning of last season the cost of production has materially increased. Figures to support this opinion were given in the memorial as well as by the speakers. Unless the price is advanced it is going to be difficult, if not impossible, to maintain production. "We are not here," said Mr. O. D. Casselman, M.P., of Dundas, on behalf of the dairymen, "as a group of disgruntled individuals looking for special favors, but representing the dairy farmers of Ontario who desire some assurance that their principal product will be marketable this year at prices that will yield a fair return on their investment and for their labor. We are willing to bear our full share of the sacrifices necessitated by the war. My county of Dundas, which is purely agricultural in character, has 100 volunteer soldiers. This has brought about a labor shortage that is alarming. Our governments have encouraged us to develop the cheese industry for many years, and it is now our main business. Our farms here have secured with that purpose in view. Our herds have

(Continued on page 3.)

Trade in VCL

The bulk of the milk after cooling to be a good capacity for foot of water cubic feet of water in the high in temperature. The temper to be a good capacity for foot of water cubic feet of water in the high in temperature.

As much cooling as possible. The temper to be a good capacity for foot of water cubic feet of water in the high in temperature. The temper to be a good capacity for foot of water cubic feet of water in the high in temperature.

From actual experience. The temper to be a good capacity for foot of water cubic feet of water in the high in temperature. The temper to be a good capacity for foot of water cubic feet of water in the high in temperature.

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A straight edge in marking out straight sawing. The temper to be a good capacity for foot of water cubic feet of water in the high in temperature. The temper to be a good capacity for foot of water cubic feet of water in the high in temperature.

*An address of Association Convention

We Welcome Practical Progressive Ideas.

Trade increases the wealth and glory of a country; but its real strength and stamina are to be looked for among the cultivators of the land.—Lord Chatham

VCL XXXVII

TORONTO, ONT., FEBRUARY 28, 1918

No. 9

AND THE FARM & RURAL HOME

The Farm Supply of Ice Should Be Stored Now*

A Plentiful Supply of Ice is the First Essential in the Care of Milk and Cream—By Prof. R. W. Brauns

THE principles underlying the proper care of milk and cream are fairly simple. They are summed up in two words—clean and cool. Both are important, since milk or cream produced under the best of conditions from the standpoint of cleanliness may be of poor quality when delivered to the milk depot or creamery, if it has been insufficiently cooled upon being drawn from the cow, or after coming from the cream separator.

Air and water are the natural cooling mediums. The temperature of air during the season in which the bulk of milk and cream are produced is too high to be a good cooling medium. Air has a very low capacity for heat compared with water. One cubic foot of water will absorb as much heat as 3,530 cubic feet of air for the same rise in temperature. Water, in the majority of cases, is too scarce or too high in temperature to be a suitable cooling medium alone. On the average it will require three times as much cold well water as there is milk to cool it; thus, then, that special provision should be made for a supply of ice.

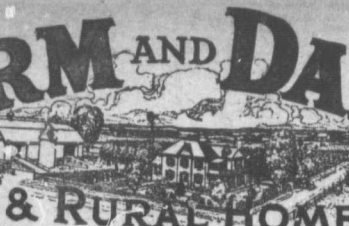
For practical purposes it is usual to consider 10 lbs. of ice as having the same cooling value as 130 lbs. of cold well water. That is to say, 10 lbs. of ice and 100 lbs. of cold well water have the same effect in cooling warm milk as 200 lbs. of cold water. The amount of ice that should be stored on any particular farm to meet all requirements will of course depend upon many different factors, chief of these being the accessibility and cheapness of the supply, whether milk or cream is to be cooled, the temperature of the well water in which the ice will be used, the amount desired for household purposes, and the manner in which the ice is stored.

From actual tests made by the United States Department of Agriculture, under dairy farm conditions where various styles of cooling tanks were used, it was found that 1.16 lbs. of ice were required per lb. of cream, in order to deliver same in a sweet net 3,500 lbs. of milk containing 37 per cent. fat. This multiplied by 1.16 gives 500 lbs., which is the amount of ice required per cow, when ice is kept floating in the water in which the cream is kept. If milk is cooled as much ice as cream is and a half to three times as much ice as when cream is cooled. From 20 to 50 per cent. shrinkage takes place in the storage, depending upon the style of ice house used and how well the packing is done. Choosing the maximum shrinkage, one should figure on storing 1,000 lbs. of ice per cow when cream only is cooled, and 3,500 to 3,000 lbs. per cow when milk is cooled. For household purposes, 50 lbs. per day stored, which would amount to approximately three tons.

Equipment.

The tools necessary for cutting a small lot of ice are: one saw, two pairs of tongs, two ice hooks, a pointed bar, and a number of planks to assist in getting the ice out of the water. If there is a crust of snow over the ice, this can be loosened by good block cut shovels or an ordinary disc harrow. The size handle easily. Blocks 22 x 22 inches in size are often cut, but they may be too heavy for hand work if the ice is much thicker than 18 inches. Blocks this size will weigh about 290 lbs. each, requiring seven to make a ton.

A straight edge and a right angle should be used in marking out the field. It is important to have straight sawing done, so that the cakes will fit



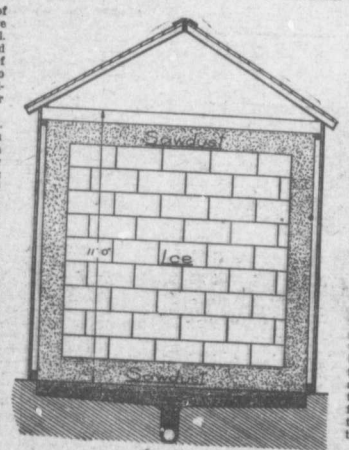
& RURAL HOME

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Section of a practical ice house. The one illustrated is 12 feet square and will hold 20 tons of ice. A 10 foot house would hold 10 tons.

closely together in packing. However, when sawing out the first strip, it should be cut slightly narrow at the top. This being pushed down out of the way will facilitate making a start.

Many styles of ice storages are in use. The best ice house is the one which best meets local conditions. Among the conditions to be considered are the amount of money which one should invest, the existence of structures already on the place which may be utilized, the cost and accessibility of insulating material, and the first cost of the ice. The essentials in the proper storage of ice are: good drainage from the melting ice, to have it well insulated and provision made for good ventilation over the ice and around the outside of the house, in case the storage is partly or wholly above ground.

Many people store ice in caves, pits or old wells. These may well be used if no other storage is available. However, they entail much labor in putting the ice in and hauling it up again. If the soil is naturally porous, no artificial drainage need be provided, if the soil is not inclined to break around the sides, if the soil is not necessary to place boards around the shrinkage would occur if sawdust, chaff or cut straw were packed all around the ice, and cut placed on the bottom to keep the ice out of water, and drainage from the melting ice. A deep foot hole in the bottom will assist admirably in drainage.

Making Ice in Storage.

If an abundant supply of water is handy, the pit or well may be filled gradually, and a solid mass of ice obtained. Water should be added to a depth of one foot at a time, and allowed to freeze solid. In this case, building paper should be laid at intervals of a foot or so, in order that the ice may be taken out in layers. Some advise sprinkling the

sides of the pit with water, and allowing it to freeze before filling is begun. A pit eight feet square and eight feet deep will hold about 12 tons of ice, allowing a depth of one foot at the top for insulating material. Some form of roof should be built over the pit. It may be only a rough structure built of poles, which are covered with earth and sod. If the roof is built of lumber, siding should be nailed on both sides of the rafters. The space between the boards should be filled with mill shavings or some other good insulating material.

Where there is no available place at present in which to store ice, it might rather do without well-drained site and place poles on the ground to further provide for drainage, and insulate well all around the stack with sawdust, straw, prairie hay or flax straw. This method is often used by ice companies when their storages have been filled.

The Ice House.

Those who decide to build an ice house next summer should choose between two general types. First, there is the cheap style with a single ply of boards nailed to posts or studding, to form the sides. It should have a tight roof and proper drainage pro by excavating to a depth of eight to 10 inches. The floor should slope slightly toward the center. A trench is dug, 12 to 18 inches deep. This excavation is filled with broken stones, finished off with a few inches of cinders. A board for two is left off the gables, and a space left open under the eaves to provide for good circulation of air over the ice.

The house should be of such a size that the ice when packed forms a cube, since in this way the minimum surface is exposed. With this style of house, it is necessary to provide for a thickness of 18 inches of sawdust under the ice, one foot all around and two feet over the top. With this amount of insulation, a house 16 x 16 x 16 feet will hold 10 tons, or about 100 cubic feet per ton, including the packing material. If it is desired to store 20 tons, a house 12 x 12 x 12 feet would be the most economical, including the packing material. Chaff, cut straw, flax straw, or prairie hay may be used, but these require about twice as much space as equal sawdust in insulating value. Some method must be used to dry the sawdust in place. Some method must be used to have a lean-to built to the top, taken into which the sawdust is shoveled as the ice is taken out. Never have the sawdust more than two feet deep over the ice. Another plan is to put it into sacks, and set these out in the wind to dry. In this way the sawdust may be used over and over with good results.

Make Air-tight.

When the ice is being packed great care should be taken that no spaces are left between the blocks. They should be placed so that all joints are broken, made to fit as closely together as possible, and the remaining spaces well tamped full of snow and chips of ice. The house should be well banked all around the bottom outside to avoid any possible leakage of liquid. If there are any openings from the bottom of the ice and spaces between the blocks, the cold air drains off and draws the warm air at the top, causing rapid melting.

The second type is the well built house which requires no insulation around the ice, except that which is built into the walls. Such a house may be built of wood, solid concrete, concrete blocks, hollow brick or clay tiles. In each case, proper use in the construction must be made of some good insulating material, such as sawdust, the blocks, pressed granulated cork and mineral wool or felt. Shavings (Continued on page 18.)

*An address delivered at the recent Manitoba Dairy Association Convention.

Selecting and Preparing Land for Spring Wheat

Factors Which Influence Yield as Suggested by Professor James Murray, Macdonald College

THE success of the wheat crop will depend largely upon suitable soil conditions being provided for it. Attention should be given first to choosing the most suitable soil and then to putting this land into proper tilth. Heavy soils, clays or clay loams are preferable to those of a sandy nature but even light soils fit fertile and well prepared may be depended upon to grow a good crop of wheat. On account of what requiring to be sown early in the spring most of the work of preparing the land should, under ordinary circumstances, be done in the fall but many of those who will sow it next spring had no opportunity last fall to prepare land specially for it.

Hoed Crop Land is Best.

It will be necessary to choose land that is already in a good state of cultivation such as that which produced potatoes, roots, corn or beans last year. This on account of its fertility and cleanness from weeds would probably be in better condition for wheat than any other on the farm unless land that had been fallow is available. A well worked fallow would be ideal but such land is found in very few farms. If the root or potato land was plowed in the fall it would only require in the spring sufficient cultivation to prepare a good seed bed. At seeding time it should be fine and loose on top but well finished below. The soil of such crops delimits in a firm soil. Root land could also be prepared by spring plowing. It would only be necessary to see that the work was done early and that the soil was well firmed either by repeated harrowing or by using a packer or roller.

Clover Sod or Pea Land.

If there was not available a sufficient acreage of hoed crop land, that which was plowed out of clover last year would be found to answer admirably. Clover seed is usually fairly fertile, reasonably clean and works down to a fine tilth with comparatively little difficulty. Pea land could be used with confidence provided it was reasonably clean. Spring plowed clover sod would probably rank next in order of land suitable for wheat. It should be plowed early, well surface worked and thoroughly firmed.

Good wheat crops are sometimes produced on land which grew oats or barley the year before, but such land should be used only when none of those already mentioned are available. If, however, it is in good heart and has been well plowed and particularly if it can be given a light dressing of manure, it will usually need frequently grow a good crop. It will usually need the manure and more care in preparation than any of the others mentioned.

Thorough preparation of the soil is one of the best means of insuring a good wheat crop which will give a satisfactory return. The seed bed should be fine on top and firm below to insure a supply of moisture for germination and to maintain growth. The time devoted to preparing the soil well spent and will bring its reward at harvest time.

It is seldom if ever advisable to attempt to grow wheat on land plowed out of old sod in the spring. The grass and weeds cannot be subdued and they will often gain the upper hand of all the farm crops before harvest time. It will pay better to put this land into roots, corn, potatoes or beans, as there is more time in which to prepare the soil before seeding is necessary.

Early Seeding is Essential.

The fall preparation of wheat land has been emphasized for the reason that the seed must be sown early to insure a good crop. Of all the farm crops, wheat should be sown first. An experiment to determine the effect of time of seeding on the yield of wheat has been carried on for a number of years in the Cereal Husbandry Department of Macdonald College. The first seeding each year has been made as soon as the soil was in good condition for seeding, the second one week later and the other seedings at intervals of one week. The results are presented in the following table.

DATES OF SEEDING WHEAT.

Cereal Husbandry Department, Macdonald College.

Average of six years.

First Seeding	35.83 bushels per acre
Second Seeding	29.10 " " "
Third Seeding	28.47 " " "
Fourth Seeding	24.79 " " "
Fifth Seeding	18.78 " " "
Sixth Seeding	14.29 " " "

These figures speak for themselves. Similar results have been obtained at the Experimental Stations in Quebec. They clearly show the necessity of sowing wheat as early in the spring as the land can be properly prepared.

In arranging the seed supply it is advisable to provide for about one and three quarter bushels per acre. When the seeding is done early on well prepared fertile land slightly less may be used, but it does not pay to skip the seed. A full crop cannot be harvested unless a full stand of plants is secured. If the seed be sown broadcast, two bushels is not too heavy a seeding.

Seed Supply.

Seed should be secured well in advance of seeding time. In districts where wheat is now grown, considerable quantities of good seed will be available locally. This should be used when it is of good quality and should be well cleaned before sowing.

In many sections home-grown seed will not be available. To meet this condition, western grown



Early Seeding of Spring Wheat Insures Increased Returns. The plot on the left yielded 35 bushels. That on the right, sown five weeks later, bore 14 bushels per acre. Photo in experimental plots at Macdonald College, Quebec.

seed wheat is being brought in by the Seed Branch of the Dominion Department of Agriculture. This seed will be practically all of the Marquis variety; it has been specially selected for seed and will be thoroughly cleaned before being sold. It will be sold only in car load lots at a price sufficient to cover the actual cost. This has been fixed at \$2.50 per bushel in bulk,—bushels will be charged for extra. (In the event of freight rates being increased the price will be increased accordingly, but not more than two or three cents per bushel.)

Since this seed is being sold by the Seed Branch only in car load lots it will have to be handled locally by Seed Merchants, Agricultural Societies or Farmers' Clubs. It is important that they make arrangements for their supply at an early date so that it may be in the farmers' hands well in advance of seeding time.—The Journal of Agriculture.

Field Beans in Ontario

They Approach Animal Foods in Value

By Dr. C. A. Zavitz.

ACCORDING to the Bureau of Industries for Ontario for 1916 the market value per acre of some of the grain crops of Ontario are as follows: Beans, \$55.95; corn for husking, \$36.57; wheat, \$34.19; peas, \$27.41; spring wheat, \$24.89; barley, \$23.91; rye, \$18.81; oats, \$17.50; and buckwheat, \$15.51. Beans occupy a high place in value per acre among the grain crops of Ontario.

Field beans approach animal foods in nutritive value. They contain a high percentage of protein and in this respect surpass the other grain crops fre-

quently used as food. There is a higher percentage of protein in beans than in any other grain, but it is not quite so completely digested. Protein is a nutrient which serves to build and repair body tissues as well as to furnish energy. It performs essentially the same part in nutrition whether it is from beans, peas, wheat, meat, milk or cheese.

The Province of Ontario, and the States of Michigan and of New York have produced about one-half of the beans of the North American continent within the last few years. In 1915, 83 per cent of the average of beans in Canada was in Ontario*. The number of acres of beans in this province was 53,999 in 1915, and 114,735 in 1917. Beans are one of the most valuable crops which can be grown in Ontario. They can be transported readily and when well matured can be stored without much danger of injury. It seems proper for Ontario to produce as large an acreage of beans in 1918 as the limited amount of labor will permit.

Wintering Farm Stock Outside

With Special Reference to Young Horses

WITH the prevailing high cost of building material and labor, it is not surprising that farmers are going very extensively into live stock raising, under the impression that a heavy outlay for buildings is necessary.

Such is not the case. While work horses and milking cows require warm stabling, sheep and poultry, in order to be profitable, must be kept away from warm quarters; brood sows do excellently in small individual cabins; young cattle thrive when run out outside with only a shelter for shelter. Even dry cows and idle work horses can be wintered under cheap shelters.

The reason these classes of live stock do so well wintered outside is that they get what is due to them when kept inside, namely, fresh air and exercise, and are, as a result, in good health and fit for profitable breeding operations.

During five years, fifteen different young horses were wintered outside, at Cap Rouge Experimental Station, with only single board sheds as shelters. Though the temperature went down as low as thirty degrees Fahrenheit below zero, not a single one has ever been known to shiver. Moreover, they commenced to shed their hair earlier in the spring than others kept in the barn. During an outbreak of influenza, all the animals inside were sick, whilst not one of those in the open was affected.

Shelters.

Any shed which is free of draughts, and with an opening to the south, will answer the purpose. If it is placed on a slight elevation so that water does not run in, there is no need of a floor; ground floors are best. Shingles or paper may be used for the roof, which must be perfectly rain-proof, for metal will get the place too warm during the summer. As only one thickness of lumber forms the sides, it should be grooved and tongued.

The main objection to keeping stock in cold shelters during winter has been that more feed is required. That the contention is correct cannot be disputed, if the conditions were always perfect in warm stables. But, as a matter of fact, there are very few well ventilated barns in the country, and it is a question whether there is not as much loss of food through bad digestion, due to the foul air breathed inside such buildings, as through the extra amount given outside.

Root Seed Production in Canada

Suggestions by Dr. C. A. Zavitz.

IN each of the past ten years experiments have been conducted in the production of home grown seed of mangels, turnips and carrots. The results with turnips and carrots have been fairly satisfactory, and with mangels they have been very successful in eight out of the ten years. In 1914, however, the home grown mangel seed was practically a failure owing to lack of germination. It was a hot, dry time when the mangel plants were in blossom which caused injury to the plants, and particularly to the seeds. In 1917, on slightly less than one acre of land, we produced fully 1,350 pounds of thoroughly dried, carefully cleaned seed having an average germination of clusters of about 94 per cent, and of plants from the clusters of 216 per cent. This stock seed is being used for the production of stockings this year for transplanting in 1919 for seed production.

As nearly all root seeds were imported from European countries previous to the war, and as they are practically no importations at the present time, the supply of seed is in a rather critical condition. The Dominion Government is taking measures to increase root seed production as much as possible in different parts of the Dominion. I would suggest to the farmers that they secure from their root cellars or from their pits in the spring a number of choice mangels and plant these in well-cultivated ground early in May.

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The illustration shows a broad mare and five of her colts, which are all owned on the farm of A. P. Dammeier, of Wellington Co., Ontario. The colts are a good, clean-limbed bunch—a family to be proud of.

Speed Up the Dairy Herd

A Good Sire is the First Essential—Geo. H. Barr, Chief Dairy Division

IN no line of agricultural work in Canada is there a greater opportunity to increase production than there is in the improvement of the dairy herds. The average yield of milk per cow in Canada is only about 4,300 pounds per annum. Compare that with individual records of over 25,000 pounds of milk in a year and herd records of over 10,000 pounds per cow, and one can readily see the possibilities for improvement. There are two ways in which a farmer can improve his dairy herd: (1) He may sell the cows he has and buy new ones, or (2) he may keep records of the milk and fat produced by each cow, breed the best cows to a sire that has a long line of heavy producing ancestors and then raise the heifer calves.

The first plan is the quickest, but likely to be the most expensive; the second plan is good for this reason: it develops and trains the owner to handle successfully his herd as it develops year by year into a fine piece of machinery, if you like.

The first step in improving a dairy herd is to be dissatisfied with the cows on hand. The second is to either own a properly bred dairy sire or be in a position to have the use of one. The third is to select milking qualities; the second plan is good for this reason: it develops and trains the owner to handle successfully his herd as it develops year by year into a fine piece of machinery, if you like.

The next step is to know the good cows. This knowledge can be obtained accurately enough for all practical purposes by weighing the milk and taking a sample for testing night and morning on three days each month at intervals of ten days, say, on the 1st, 11th and 21st. The total of the weights on these three days multiplied by ten gives the pounds of milk produced in thirty days, and the pounds of milk multiplied by the test (percentage of fat) and divided by one hundred, gives the pounds of fat. Thus for example, if the six weighings on the three days give 16 and 14 pounds, 15 and 13 pounds, and 14 and 14 pounds, respectively, the total would be 86 pounds, which multiplied by ten, gives 860 pounds, as the calculated yield of milk for the month. If 560 be multiplied by 3.5 (assuming that to be the percentage of fat in the composite sample) and divided by one hundred, the result is 30.1, which would be the calculated pounds of fat for the month. This repeated from month to month during the full lactation period will give a record of the milk and fat produced accurately enough to determine the relative standing of the different cows in the herd.

With the figures in black and white regarding the production of each cow before him, the owner has something definite to work on in building up a profitable dairy herd. He knows which cows to keep and breed from; he knows which to sell for beef if they are not up to the standard as milkers, and 14 and which he can demand a high price if it is desirable to sell. He also has a safe guide in feeding, for the scale will show if individual cows respond to improved feeding. He will be able to avoid the waste of expensive feeding of cows that have not the necessary dairy capacity to give increased yields from increased rations.

Let us see if this is worth while. The average yield of milk per cow for all Canada has increased fully 30 per cent, since the cow testing work was first commenced by the Dairy Division in 1904. This means that the total value of Canadian dairy products was greater by at least \$50,000,000.00 in 1917 than it would have been if there had been no improvement or increase in the herds since that time.

The most difficult part to work out successfully in

the whole scheme is making proper use of the information contained in the records. How many men are like the one who said, "I have been testing my cows regularly for three years and they are not giving any more milk now than they did before I commenced testing." Now what was wrong? The weighing and sampling was done right, the testing done accurately, the total milk and fat produced by each cow was calculated properly and the figures returned to the farmer. Therefore, we cannot lay the blame for failure on the plan for getting the records, neither can we blame the cows; no doubt, they did their best. We must come back to the point already mentioned: failure to put the information obtained into practical use.

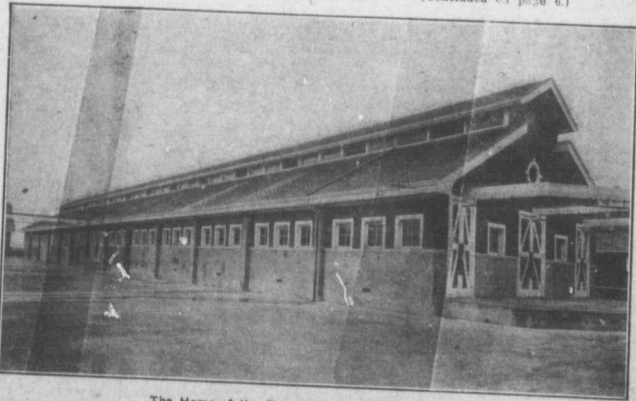
I believe the greatest hindrance to the successful building up of a dairy herd is that the farmers do not fully realize the importance of using properly bred sires. Suppose some farmer has a mare that can trot a mile in three minutes. He would like to raise a colt from her that would go just a little faster. What does he do? He begins looking around for a properly bred trotting stallion, but he finds there are none near his home, or the fee is very high, so he just breeds her to an ordinary bred Clydesdale. Does Not likely. But how many farmers all over the country are following a similar plan for increasing the milking qualities of the heifers they are raising.

The Feeding of Calves

A Summary of Experimental Farm Results

GIVING a calf an extra good start the first six months of its life and doing so cheaply, is the secret of successful and economical stock raising.

No matter how good the calf at birth, it will be



The Home of the Famous B. C. Holstein Champion. This is the dairy barn on the Cobden Farm, Escondido, B. C., the home of Zarlita Clifton third Dekol, the wonderful Holstein cow that so recently completed her record of 30,469.2 lbs. milk and 1,071.6 lbs. butter in one year.

handed at a loss, or more or less seriously handicapped for future usefulness and profit if not fed carefully and cheaply in its early days.

The present high prices of whole milk practically exclude this product being used to any extent in calf rearing, although it is absolutely necessary for the first three or four weeks if best results are to be obtained. To discover the best substitutes for whole milk and the best methods and practices in calf feeding, a large number of experiments have during the past three years been conducted on the Dominion Experimental Farms. The detailed results of this work will be published in the near future. However, a few deductions from these experiments are given herewith.

I. It is more profitable to breed and rear good young stock to maturity than to purchase the average cows for sale, which are usually the animals least profitable and desirable in the neighbor's herd.

II. The cheapest way of building up a good herd is to raise it. The feed costs of good rearing in Canada range from \$16 to \$24.30 for six months, \$24 to \$45 for 12 months calves, and \$37 to \$74.30 for 24 months calves, the variation depending on methods of feeding, feeds available and market values of these feeds.

Type and Breeding.

III. Calves of poor type and breeding are not worth rearing, but good calves properly bred will be worth at least 20 per cent, and up to 100 per cent, more than their feed cost at two years of age.

IV. Calves of good size, strong constitution and large capacity will on the same feed, make greater growth and better gains than small, weak, narrow individuals.

V. Good rearing of calves is most profitable, as shown in such results as—

Earlier maturity in size.
Greater production throughout the whole life time.
More valuable and in greater demand at the highest price.

Healthier stock.

More durable animals.

Better able to consume most profitably all cheap farm-grown roughages and convert these into milk.

VI. The calf reared on its dam costs 25 to 50 per cent, more than the paid-fed calf and the more productive the cow the greater will be the charges against this calf.

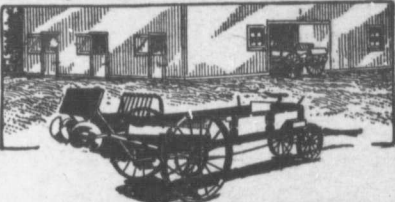
VII. Paid-fed calves reared to 6 to 8 months largely on whole milk, make gains which cost \$14 to \$18.75 per cwt., which is several times the cost when a properly fed substitute for whole milk is used.

VIII. Skim-milk fed sweet and at a temperature of about 50 degrees Fahr. is the best and single substitute for whole milk, and may reach a value of 70 cents a skin-milk may be improved by the addition of a good cream substitute such as flaxseed jelly, oatmeal or a well-balanced calf meal.

Buttermilk versus skim-milk.

IX. Buttermilk, if fed uniformly as to acidity and temperature, may have a slightly greater value than skim-milk. Great caution must, however, be taken to start calves at a greater age and very gradually.

X. In feeding calves to 6 to 8 months of age on rations composed largely of skim-milk or buttermilk and a good cream substitute, gains may be made at a cost of feed amounting to from \$2 to \$7.15 per cwt., this amount varying with the character and price of feed and the ruggedness and thrift of the calves. (Concluded on page 6.)



Fertilize the Whole Field

ONE great feature of the McCormick spreader is that it fertilizes every particle of soil, spreading an even coat of manure, light or heavy as desired, up hill or down.

This evenness of spreading is due to McCormick design. The reversing apron is driven by a worm feed which maintains the same relative speed of apron to beater at all times. The manure is thus fed steadily to the beater, which tears it into small pieces and delivers it to a spiral beater. The spiral gives the manure a second beating, makes the pieces still smaller and spreads evenly beyond the wheel tracks. Each particle of the soil is thus properly fertilized, and the whole field put in condition to produce a bumper crop. No manure is wasted. A McCormick spreader makes twenty loads do the work of forty spread with a fork.

McCormick spreaders are made in three sizes. No. 8 is a 49-bushel machine; No. 5, 55 bushels; and No. 4, 63 bushels. All are of the popular low type, with narrow boxes, cut-under front wheels, and strong steel frames.

See the McCormick local dealer, or write the nearest branch house for catalogue and full information.

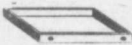
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WEST—Brandon, Man., Calgary, Alta., Edmonton, Alta., Estevan, Sask., Lethbridge, Alta., N. Battleford, Sask., Regina, Sask., Saskatchewan, Sask., Winnipeg, Man., Yorkton, Sask.

EAST—Hamilton, Ont., London, Ont., Montreal, Que., Ottawa, Ont., Quebec, Que., St. John, N. B.

WELDED STEEL SAP PANS



Made of heavy sheet steel—finished around top with heavy angle steel, strong and durable. All joints welded so it cannot leak—NO SOLDER TO MELT.

Depth.	Width.	Length.	Capacity.	Price.
6"	2 ft.	7 ft.	50 gals.	\$16.00
6"	2½ ft.	7 ft.	55 gals.	\$17.00
6"	2½ ft.	7 ft.	75 gals.	\$19.00

This will enable you to work your small bush at a small expense, and prices of syrup and sugar are very high.

Send cash with order, and we will ship promptly.

THE STEEL TROUGH & MACHINE COMPANY, Limited
TWEED, ONTARIO

Give Your Crops a Better Start

A Peter Hamilton Spring Tooth Cultivator will work your soil into a perfect seed-bed. It is designed to cut every inch of the ground and cultivate it thoroughly to an even depth.

Peter Hamilton Cultivators

have specially constructed sections that give the teeth great freedom of action. They are so flexible that a ridge and furrow can be thoroughly cultivated at the same time, and hard, rough soil seldom jerks more than two teeth out of the ground at once. The teeth are made of high-grade steel with reversible points. The frame is strong, well-braced and properly trussed.

Send for our free illustrated booklet and post yourself on the merits of this cultivator.

D-values wanted in open territory.

The Peter Hamilton Company Limited
PETERBOROUGH
ONTARIO



The Feeding of Calves

(Continued from page 5.)

XI. If well started on mother's milk, calves may be well reared on calf meals without whole or skim-milk. However, greater care and attention must be paid to these calves, and even so, gains cost from \$5.00 to \$7.41 per cwt., or nearly double the cost where some skim-milk is used.

XII. There are many excellent calf meals on the market in Canada. The Canadian manufactured meals are as good as and generally decidedly superior to imported meals, due not only to the palatability of the ingredients and the chemical balance, but even more to freshness and freedom from mustiness.

Of the Canadian made calf meals used the three which in total gains have given excellent satisfaction are Royal Purple, Gold Dollar and Caldwell's.

XIII. In order to rear the best and cheapest cows, all milk-fed calves should be taught to eat at an early age, cheap and nutritious farm-grown roughages and grains. The best roughages are grass, fine alfalfa or clover hay, sweet vernal, mangolds and ensilage. Of the grains, oats and barley are unexcelled.

To Have Better Calves.

I. Give suitable feeds and avoid overfeeding.

II. Feed regularly and carefully.

III. Keep calf pens clean and free from vermin.

IV. Avoid in every possible way all such infectious diseases as scours, tuberculosis, black leg and abortion.

V. Destroy parasites such as worms, ringworm and lice.

International Fair Committee Appointed

THE committee appointed by all of the live stock breeders' associations to consider the establishment of an International Live Stock, Dairy and Poultry Show in Canada met in Toronto last week and elected a provisional board to deal with the matter. The representation of the various interests was dealt with at some length and finally it was agreed that each branch of the interests involved should have three representatives on the provisional board. Wm. Dryden of Brooklyn, was elected permanent chairman, and W. W. Halyantyne, Stratford, Vice-Chairman, to represent the dairy interests. Prof. Geo. E. Day was elected secretary and Jno. Garbouse, Highgate, assistant secretary. The representatives of each division were selected as follows:

Heavy horses: Wm. Smith, Columbus; Peter Christie, Manchester; E. C. H. Tisdale, Beverton.

Light horses: Geo. Pepper, Toronto; Jas. Cowan, Cannington; H. M. Robinson, Toronto.

Beef cattle: H. M. Pettit, Freeman; Jas. Downham, Guelph; L. O. Clifford, Oshawa.

Dairy cattle: D. C. Platt, Hamilton; Jno. McKee, Norwich; and B. A. Bull, Brampton.

Dairy products: Geo. Putnam, Toronto; G. G. Publow, Kingston; Frank Herza, London.

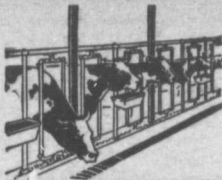
Sheep: Jas. Douglas, Caledonia; Col. McEwan, London; J. M. Garbouse, Weston.

Swine: J. D. Brian, Ridgestown; L. A. Dolson, Norval; J. E. Bretbush, Burford.

Poultry: Jno. Saunders, London; W. W. Simpson, Guelph; J. G. Henderson, Hamilton.

Seeds: W. J. Squirrel, Guelph; W. J. W. Lemox, Toronto; A. McKinlay, Windsor.

It was agreed to ask all the live stock associations to bear the expenses of the work of the committee. The committee was instructed to formulate a plan of finance and then present it to the various associations through their secretaries.



TORONTO STABLE EQUIPMENT

THESE is extra long service with Toronto stable equipment. The variety of the steel tubing frames by dipping. In this way the tubing is galvanized inside as well as outside. Same way with our partition stalls and standoffs. Ordinary stable equipment runs away from the inside. For the most up-to-date equipment, including wire boxes, bull pens and fittings of all kinds, write for the handy booklet on Toronto Stable Equipment.

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ONTARIO WIND ENGINE & PUMP COMPANY Limited

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UNDER DRAINAGE

Have for sale a
BUCKETE TRACTION DITCHER
Full particulars on application.

A HUTCHINSON & SON,
Mount Forest, Ont.



10-15-20

Years from now the Russell Silo will be giving good service. It is built of galvanized steel, treated with wood preservative, that prevent decay. It has strong, rigid walls, air-light doors, and hoops of heavy steel. Therefore it lasts, simply because it can't very well do anything else. Our folder explains more fully. Write Dept. R.

T. E. Russell Co., Ltd., Eber, Ont.

Gasoline and Kerosene Engines,
Saw frames, saw blades, grain grinders, straw cutters, belting, small farm and lawn fence. Write for price list.

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THE GILSON SILO FILLER is the only one known locally.

It is a little power as 4 h. p. There is a Gilson Silo Filler for every purpose, and it is the most reliable, for the application, and our large capacity machine for the common.

We guarantee every Gilson Silo Filler to cut and deliver more material with the same power than any other blower cutter.

Will Silo Filling Time
And your ready?

Write for catalogue booklet.
Gilson M. Co. Ltd.
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A FRESH

is very
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On Chestnuts

A FRESH joke like a fresh cigar is very enjoyable, but a joke twice told, like a clear lit second time, somehow loses its charm—in fact either is nauseating. There should be a law prohibiting the springing of jokes a week after they have appeared in the Ladies' Home Journal. If there is anything more difficult than endeavoring to force a laugh at the 49th repetition of a moss-grown witticism, I'd like to be spared it.

One feels in duty bound to wrinkle up his face and make a noise like a jackass when the funny part is reached, especially if the story be told by his employer or a rich relative. And then one always has the feeling that if he laughs at other people's jokes if he wants to, that whether or not he wants to, that maybe they will one day spare him the fatal blow when he himself inadvertently springs a kiln dried chestnut.

That is wherein lies the tragedy of jokes—that so many victims have been slain who were guiltless of any intent to deceive—men who have told what they believed in all good faith to be a new story, but which has been for many years the pet aversion of the listener. All too late they recall the words of Shakespeare:

"A jest's prosperity lies in the ear of him who hears it, never in the tongue of him who makes it."

Several times I have tried out some homered jokes on strangers— anecdotes that were passed on from men who are now wearing either white boards or white robes, men who solemnly swore that the incidents related had actually happened in our locality. Instead of bursting into loud guffaws of musical laughter, the aforesaid strangers have regarded me with that cold and glittering eye which I had formerly imagined peculiar to ancient mariners. The first time this happened I thought I had struck a Scotchman, and was proceeding to dig out and display the point when my auditor told me that he hadn't been able to get up a laugh over that joke since the winter of '98 when it was so popular.

The other day Mac related to me a joke illustrative of the habitual fragility of farmers as a class. The tale as I remember it ran somewhat thusly: Jonesville is possessed of two hotels. One of these caters to drummers and the other to farmers. The proprietor of the farmers' hotel was once asked why he didn't try to catch some of the commercial trade. "The farmer trade is more profitable," said he. "Your commercial traveller will find fault with his food; the farmer will eat what is set before him, provided it is wholesome. The traveller will take a toothpick for immediate use and also put half a dozen in his pocket; the farmer will take one toothpick, use it and put it back." Mac said that this was genuine, had happened in Jonesville and was only known locally.

The next day I met an old friend and in the course of our conversation I made use of this "new" story. "The last time I heard that," said my friend, "the scene was laid in—" And there you are. Every time you get off what you consider to be a new one, at least as far as your own community goes, there is always someone to say "Somebody told me I've heard that one before."

The Manitoba government has recently banned comic movies. They claim that these tend to make the people frivolous and that frivolity

should not be encouraged in war time. I would respectfully suggest that since governments have chosen to get their hands in on comic matters, they had better extend, or else that they ban the drummers that set them afloat. I can't mean that these jokes tend to make people frivolous. Far from it. They tend to a preventable loss of human life at a time when farm help is getting almighty scarce.

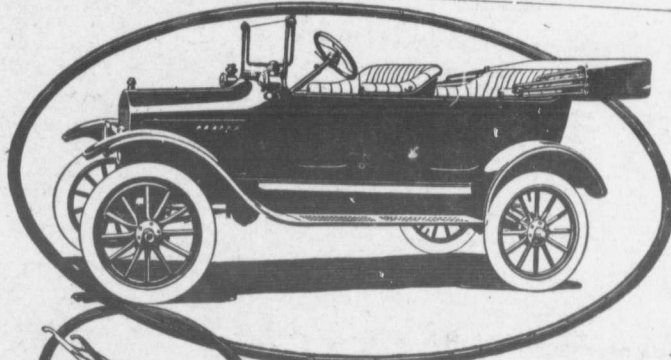
Saw Ray

Making Maple Sugar

THE appeal of the Food Controller to produce large quantities of maple sugar and syrup this spring should receive a ready response from those who have groves of maple trees. While maple sugar can be made as it was in the early days of settlement, with very simple apparatus, the work is greatly reduced and better products made when a modern equipment is utilized. For the instruction of those not entirely familiar with advanced methods, the Publications Branch of the Depart-

ment of Agriculture at Ottawa has issued Bulletin No. 2-B entitled "The Maple Sugar Industry in Canada." By text and illustration it makes very clear the operation of a maple sugar plant. The time to tap the stems to use, the refining and handling of the product are all dealt with. This bulletin is available for distribution to those who apply for it.

More grain and less hay should be the feeding rule for horses with heaves. Unless the hay is very clean, dampen before feeding. Also water before feeding.



Necessary Farm Equipment

MORE and more the Ford car is looked upon by progressive farmers as necessary farm equipment, the same as the plow, the hay-rake, the drill, the mower, the harrow and other labor and time-saving machinery.

A farmer with a Ford car can dispense with one or two of his horses and make the trips to town, railway station, creamery, or to the neighbors in one-third the time. In fact there is no farm machine made that will save the busy farmer and his busy wife so much valuable time as a Ford. And it's so easy to take care of—far easier than a horse. No bed to make, or hay and oats to get, no harnessing and unharnessing, and no stables to clean. The Ford practically takes care of itself.

Ask any farmer who owns a Ford if he would ever again try to get along without it. His answer will hasten your decision to own one.

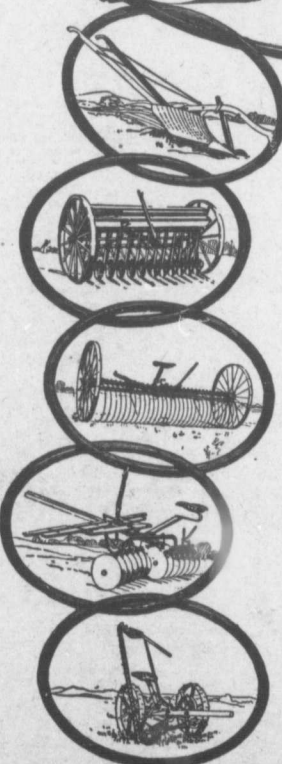
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Ford Motor Company of Canada, Limited
Ford, Ontario



Better Price for Cheese, etc.

(Continued from Page 2.)

been developed with the same object before us. Anything, therefore, that will cripple the cheese industry will strike a hard blow at this important industry."

Mr. Jas. Donaldson, of Atwood, the president of W.O.D.A., showed that the production of cheese in 1917 was an entirely different proposition from what it will be in 1918. Bran has advanced during the year from \$24 to \$29 a ton. Concentrate from \$45.50 to \$66; the cost of manufacture from \$1.75 a cwt. to \$2.20 and \$2.50 a cwt. Coal which last year could be bought for \$7 a ton is this year \$11. The price of cotton used in bandages has doubled. The price of rmet is away up. Boxes which last year cost 21 cts. will this year cost at least 25 cts. and possibly much more. "We dairy farmers," said Mr. Donaldson, "are in the war to the finish. We feel, however, that we must not be expected to produce at a loss. It is upon our wives and daughters that much of the load will fall this year." Mr. Hanna, M.P., of Perth, also spoke for the dairymen.

Mr. Crerar's Reply

The reply of Hon. Mr. Crerar, on behalf of the government, made a most favorable impression on the delegation. It was the first opportunity most of the delegates had had of seeing him. His simple, unaffected and sympathetic reply gave the impression that he was the farmers' friend. "This business of being a Minister of Agriculture," said Hon. Mr. Crerar, "is still a little bit new to me. My part in the past has usually been to put it up to the other fellow. Now I find it somewhat strange to have the other fellow putting it up to me. I was born and brought up on a farm, lived on one till I came to manhood's estate and crowded off my experience by hatching it for two years on a homestead in the West. I feel therefore that I know the views and feelings of farmers with whom my sympathies always naturally rest." Mr. Crerar did not undertake to say anything about the price of cheese for the coming season, leaving this point to be covered by Mr. Mills on behalf of the British Food Control Board. He did, however, announce that he believed the request of the farmers to be represented on the Cheese Commission

was a reasonable one and that he intended to grant it.

Mr. Mills Speaks

Mr. Mills spoke briefly on behalf of the Food Control Board. He stated that the food situation in Europe is most serious. Land that has been tilled for centuries and whose fertility has been maintained by the use of fertilizers is now without fertilizers. The lack of labor is so great that in France women have been assisting by pulling the plows and the cultivators. The number of meat animals in the allied countries has decreased over 100,000,000 since the beginning of the war. He complimented the delegation upon the spirit and manner in which their requests had been presented, said that he was pleased to know the price that had been paid last year had proved satisfactory under last year's conditions and that it was his hope that they would be just as well pleased at the close of 1918 with the price that would be paid this year. He would welcome dairy farmers on the Cheese Commission which will direct the shipping and financing of the cheese as was done last year. Emphasis was laid by Mr. Mills on the point that the

action of the British government in buying all the food is essential to eliminate the profiteer. He closed by making the announcement: "The proposed action to regulate the prices paid for all our products, including condensed milk and powdered milk as well as cheese.

Dairy Commissioners J. A. Ruddick and Mr. Jas. Alexander, of Montreal, and the Canadian representatives on the Cheese Commission last year, were both present but did not desire to speak.

Committee Appointed

After the delegation has presented its case a meeting of the large committee which is to be organized in arranging the program, met and appointed a sub-committee which was given power to represent the cheese industry in reference to any matters concerning which the government or the members of the Cheese Commission may desire information. This committee is as follows: J. A. Campbell, Ormsby, chairman; Jas. Donaldson, Atwood, vice-chairman; J. W. McLeod, Cornwall; J. B. Wilson, Lancaster; Alex. Hume, Campbellford; H. B. Cowan, of Farm and Dairy; Peterborough; R. W. Hodgins, of Shawsville, Que.; J. N. Paret, Camboro; R. B. Falth, Ottawa; J. W. Crews, Tronton and T. A. Thompson, Almonta, secretary. Later Mr. Geo. Leggett, Newboro, the president of the E.O.D. A. was added to the committee.

Shipping space to Europe is so scarce that thousands of tons of urgently needed war supplies are held on North America docks awaiting transportation. Even though willing to pay double or treble rates, shippers cannot get their goods through.

Separators Given Priority Over War Materials

A FEW weeks ago, under authority of the French government, a shipment of five hundred Sharples Suction-feed Separators was promptly forwarded from here to France. The very next week another order for five hundred Sharples Suction-feed Separators was received and forwarded under similar conditions.

Both shipments were given precedence en route. Munitions might wait. Even food products might wait. But this machine that saves butter fat wasted by every other separator or method, was placed in the very vanguard of life's necessities.

SHARPLES

The One and Only Separator

- that will skim clean at widely varying speeds.
- that gives cream of unchanging thickness—all speeds.
- that will skim your milk quicker when you turn faster.
- with just one piece in bowl—no discs, easiest to clean.
- with knee-low supply tank and once-a-month oiling.

See the nearest Sharples dealer at once. He probably advertises in your local paper. If you do not know his name, ask us and we will send it, together with a copy of our 50-page, old-time Song Book in appreciation of your interest. Address Dept. 77 for this information and catalog.

TORONTO, ONT.

THE SHARPLES SEPARATOR CO.

REGINA, SASK.

THE MITCHELL & McCREGOR HARDWARE CO., Brandon, Man.

Distributors for Manitoba

It has been said that no munitions, not even money will win the war—but fats.

The English Government recognizes this. On December 22nd, we received the largest order for Sharples Suction-feed Separators our agents there have ever given us.

Immediate shipping space was provided by the English Government.

And no wonder they are achieving first place—not merely first place among separators but among economic inventions that have made North America great.



Sharples is the only separator that automatically and fully prevents cream losses. No matter whether turned fast or slow, the Sharples Suction-feed principle insures clean skimming. Not less than ten pounds of butter per year for every cow is the average saving over any other separator. No wonder they want them in Europe!

The Sydney Experimental Station

EXCELLENT work is being done at the Sydney Experimental Farm, at Sydney, B.C., conducted by the Dominion Government, the manager of which is Mr. L. Stevenson, B.S.A., son of Mr. R. S. Stevenson of Ancaster, the well-known Holstein breeder. The appearance of the buildings, fences, fields and roads, as one passes this farm on the electric railway from Victoria, B.C., makes most favorable impression which is increased by the fact that the farm itself. An editor of Farm and Dairy spent some hours on this farm last summer and found that much excellent work is being accomplished although the farm was started only five years ago. It has been under the direction of Mr. Stevenson only since 1915. A herd of Jersey cattle has been started, a description of which appeared in recent numbers of Farm and Dairy. It is only a small herd but is being given good management in comfortable, although inexpensive buildings that are well lighted and ventilated and which shield and shield the herd to give a maximum of results.

As the southern and eastern portion of Vancouver Island produces large quantities of fruit, considerable attention is being given on the farm to horticulture. In all 23 acres are devoted to horticulture, including 15 used for landscape art and as an arboretum. There are also six acres of nut orchard. Special attention is being given to flowering bulbs, garden and vegetable seeds and to testing fruits.

On the main farm the management expects to follow a four year rotation of wheat, clover, corn, rye and peas. They are specializing in fall seeding. Next year they will have five acres of mangels for seed production and one-half acre of carrots.

When a horse out at pasture or in the stall is found straggling in a dopy condition, with the pupils of the eyes dilated, it is usually apparent that he has eaten something that does not agree with him. The eating of the common bracken fern is the cause. This disease, and methods of remedying it, is described in Bulletin No. 18 of the Health of Animals Branch, and may be had on application to the Publications Branch, Ottawa.

MR. R. G. C. Clark says that 5 will be made early growth of Dairy, when week. "This jagged south-meth South White and will come south, Kansas south of the there is not seed corn normal acreage desiring people us the have."

Purchased T

Mr. Clark and Dairy the government request Canada issue environmental organization will meet Seed Pu ready an order St. Louis Br seed corn. This seed corn No. 1 or No. more than about and of those commonly used. Unless Canadian mere all of the corn sasked in two quick permits corn, under the mixed varieties.

Profits of S

Last week T met with Mr. C. darts to take for seed of mm.

Cost of P

THE Councils has been meeting on the cost of production in that following conclusion: The cost of representative of year ending April cents per quart pounds. There was an year per cow ft \$18.42.

The cost of per farm for the m was 6.25 cents per hundred pounds, yearly rates.

The 28 highest duced milk on 5 cents per quart dred pounds, being ducing herds.

The greatest per bulls and milk herds with the light while the smallest 25 lowest producing.

The 28 highest showed a profit at production of \$10.5 while the lowest showed a loss of \$

The costs were producing approx pounds per cow state average.

There is no profit at 4.87 per quart of 278 farms, the average 20, 1917. With cow average 6,250 pounds dairymen would just

A Supply of Seed Corn Arranged for in U.S.

500,000 Bushels Will be Available for Canadian Farmers Says Seed Commissioner Clark

Mr. Geo. H. Clark, Dominion Seed Commissioner, returns from Washington with the welcome news that 500,000 bushels of seed corn will be made available to Canadian and alien growers. "This will be sufficient to cover all our needs," Mr. Clark assured an editor of Farm and Dairy, when we met in Toronto last week. "This, however, will be of the large southern kinds such as Mammoth Southern Sweet, St. Charles, White and Bone Corn and White. It will come from such states as Missouri, Kansas, Tennessee, Virginia or south of them. North of those states there is not more than enough mature seed corn to plant 72 per cent. of a normal acreage and the United States is dealing generously with us in giving us the liberal quantity that they have."

Purchased Through Government Commission.

Mr. Clark further informed Farm and Dairy that the United States government requires that all orders from Canada issue from one central governmental organization. This organization will be the Canadian Government Seed Purchasing Committee. Already an order has been placed with a St. Louis firm for 100,000 bushels of seed corn. It is desired that all of this seed corn be of commercial grades No. 1 or No. 2; shall contain not more than about 16 per cent. of moisture and as nearly as can be estimated; and of those late varieties that are commonly used for ensilage production. Unless otherwise instructed by Canadian merchants, it is desired that all of the corn be well re-cleaned and sacked in two bushel sacks. It is quite permissible that seed of ensilage corn, under the circumstances, be of mixed varieties.

Profits of Seed Dealers Fixed.

Last week Toronto seed dealers met with Mr. Clark and definitely undertook to take care of the demand for seed of ensilage corn for Canada.

Cost of Producing Milk

THE Connecticut Agricultural College has recently made some interesting studies from the survey on the cost of market milk production in that state, from which the following conclusions are derived: The cost of milk production on 178 representative dairy farms for the year ending April 30, 1917, was 5.53 cents per quart or \$2.57 per hundred pounds.

There was an average loss for the year per cow for the 178 farms of \$18.42.

The cost of producing milk on 177 farms for the month of April, 1917, was 6.22 cents per quart or \$2.92 per hundred pounds, with labor at the yearly rates.

The 28 highest producing herds produced milk on the average for 2.06 cents per quart or 85 cents per hundred pounds, below the 25 lowest producing herds.

The greatest per cent. of pure bred bulls and milk records were in the 28 herds with the highest producing cows, while the smallest per cent. was in the 25 lowest producing herds.

The 28 highest producing herds showed a profit above the net cost of production of \$10.86 per cow per year, while the lowest producing herds showed a loss of \$23.72.

The costs were obtained from herds producing approximately six hundred pounds per cow per year, above the state average.

There is no profit in producing milk at 4.87 per quart or \$2.34 per hundred pounds, the average price received on 178 farms for the year ending April 30, 1917. With cows producing on the average 6,225 pounds per year, the dairymen would just about break even.

They also agreed to handle all seed in car lots at a profit of five per cent. net and for seven and one-half per cent. in less than car lots. They organized a committee among themselves to take care of this trade. Incidentally the United Farmers' Cooperative Co., Ltd., clubs may order their seed corn through this organization. "I found on the part of the Seed Stocks Committee at Washington," said Mr. Clark, "a wholesome desire to do all that could possibly be done to relieve the serious situation in respect to ensilage corn in Canada."

"And how about the supply of root seed," we asked Mr. Clark.

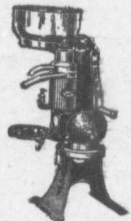
"There will be a shortage of Swede turnip seed," was the Commissioner's reply. "Messages, however, will be plentiful, with the price high in view of future scarcity. Mr. Clark then added the further information that this year the Experimental Farms System is undertaking to grow fifty per cent. of the field root and vegetable seed that will be required for Canada in 1920 and the remainder will be grown under the supervision of Prof. Kinkead and the University of British Columbia. This year the Experimental Farms are growing 350 acres of root seed which is 25 per cent. of the country's requirements. Until this seed becomes available the price of root and vegetable seed will necessarily be high.

Within a few miles of my home five cheese factories have been closed through the operation of condensed milk factories. This raises the question, what is likely to happen after the milk when the demand for condensed milk falls off. If the cheese factories go out of business, and the condensed milk factories later shut down, some new market will have to be found for the milk of the farmers.

J. J. Fraser, Brant County.

In Times Like These

when help is so scarce and duties are so many, the wise dairy farmer conserves his time and strength, recognising that a saving of these puts dollars in his pocket. One of the surest labor savers and money makers on the modern dairy farm is the



Simplex Link Blade Cream Separator

It cuts the labor of skimming milk more than in two, not only because it turns easier than most other hand separators, regardless of capacity, but because it does the work in half the time.

The Simplex skims so clean and runs so light that the large

1,100-lb. size, when at speed and skimming milk, takes no more power than the ordinary 500-lb. Hand Separators of other makes.

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Branches: Peterboro, Ont.; Montreal and Quebec, P.Q.

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My breeding pen, as mated, averaged 174 eggs, and this under general farm conditions. Cook birds are selected for winter egg production. Last year's orders were: Eggs for hatching, \$8 per 500; \$1.50 per setting of 15, at our station. Cash with order or C.O.D.

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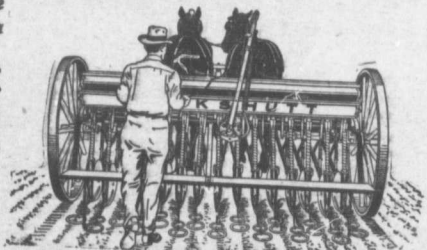
There is one way to make sure of it, and that is, use a

Cockshutt Disc Drill

With its very strong frame construction—no sagging or bending of the parts. Both wheels are drivers—you sow on corners as well as in the field.

You may buy the best seed and keep your land in good shape, but if you don't PLANT your seed properly your crops will be thin, "spotty" and unproductive. Cockshutt Disc Drills plant and cover all kinds of grain at any rate-per-acre you wish. They pulverize the ground, cover the seed and give it every chance for germination. No's a heavy draft machine, despite its tremendous strength. Built in five sizes with either 6 or 7 inch spacing.

The Cockshutt Disc Drill should be seen to be appreciated. Write for our free Cockshutt Drill Book to-day. State whether it is a plain grain Drill or a combination grain and fertilizer. Our nearest agent will be glad to show you how it works.



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Ten years test at Guelph show a yield of over 17 bushels per acre over highest competitors, or 17 bus. at \$50-\$14.46 per acre.
Have good seed testing 28 lbs. from registered stock. Price \$1.25 bus; sacks free; sample sent. Order to-day.

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Pure and clean, grown from selected and graded seed, hand weeded while growing.

O. A. C. 72, IMPROVED AMERICAN BANNER, and O. A. C. No. 3, three of the best and most popular varieties ever grown in Canada. All heavy yielders of first class quality. Samples, prices, and further particulars on application to the growers.

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HARDY ALFALFA SEED

GRIMM ALFALFA SEED GROWN IN ALBERTA

The hardest known Alfalfa. Practically no danger of winter killing with this seed. Guaranteed pure Grimm. Write for prices and samples

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SUFFIELD, ALTA.

W. A. McGREGOR Superintendent of Farms

HIGH GRADE SEED

Registered 1st. Generation, O.A.C. No. 72 Oats \$2.00 per bushel, Government Germination test 97 per cent. Improved O.A.C. No. 72 Oats, grown from strains of registered seed, \$1.60 per bushel, Government germination test 94 per cent. Registered O.A.C. No. 21 barley, \$2.50 per bushel, Government germination test 97 per cent. Improved O.A.C. No. 21 barley, grown from strains of registered seed, \$2.00 per bushel.

The above grains have been produced from carefully graded, selected seed. Guaranteed true to variety. Free from smut and noxious weed seeds. Small white field beans, extra good quality, \$1.00 per bushel. All grains offered produced on our own seed farms. Samples sent on request. Sacks free. Prices f.o.b. Alliston, C. P. R. or G. T. R.

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Do not waste the fat from new milk by feeding it to calves but turn it into products such as butter or cheese that can be used for human food.

Aside from patriotic reasons you should feed Caldwell's Calf Meal, as it costs less than whole milk and produces thrifty, healthy calves. It is a genuine substitute for milk and will not derange the delicate digestive systems of young calves, when fed as directed.

Order a supply from your feedman or direct from our mill.

The Caldwell Feed & Cereal Co., Ltd.

DUNDAS, ONTARIO

STANDARD FEEDS

THE business survivors are the good advertisers. But good advertising is not chiefly the putting forth of strong advertisements. Advertising is worse than useless if the goods are not as strong as the advertising. Survival is founded on bedrock quality. Good advertising must rest on that. Test the advertising in Farm and Dairy by that severe standard, in actual purchase. We guarantee the integrity of every advertiser in this issue, and believe they will stand the test. Try them and see. When writing, say "I saw your advertisement in Farm and Dairy."

FEEDERS CORNER

Conducted by E. S. Archibald.

Feeding Roots to Hogs

ARE cooked shredded roots (such as mangels or sugar beets) good feed for soaking pigs along with a rake of clover hay, and would it be a good plan to finish them by feeding with the above for three weeks and corn? These feeds would also include skim-milk from the dairy. Or would you suggest using some other food in preference to the above?—York Co., Ont.

In the winter feeding of hogs, particularly for young growing pigs, a reasonable amount of succulent food must be given if greatest returns are to be made on meal or other valuable feeds consumed. Cooked pulped roots, preferably mangels or sugar beets, but in their absence turnips, are undoubtedly excellent not only as a cheap feed, but also in their tonic effect on the young pigs. Fine clover hay for the older pigs is undoubtedly excellent, but for young shoats it contains rather too much fibre to be of any great economic value. The farmer should not attempt to feed young growing pigs solely on pulped roots and clover hay. Some grain, and skim-milk, if available, are essential if the proper growth of bone and muscle is to be acquired. It has been the custom of many farms to cook 4 lb. clover and alfalfa hay for young pigs, and with the addition of a small amount of grain this makes an excellent feed. The economy of cooking any of these feeds depends largely on the cost of the same. An experiment which not only illustrates the value of skim-milk, but also the value of cooking of roots, was conducted at the Central Experimental Farm in 1911. Seventy-five young hogs with an average weight of 85 pounds were chosen for this experiment and were fed 60 days on five different rations. To all these pigs a meal ration composed of two parts ground barley, two parts wheat shorts and one part ground oats was fed. Lot No. 1, fed meal and skim-milk, made a total gain of 733 pounds; lot No. 2, fed meal and water, made a total gain of 610 pounds; lot No. 3, fed meal and raw pulped mangels, made a total gain of 551 pounds; lot No. 4, fed meal and cooked pulped turnips, made a total gain of 493 pounds; lot No. 5, fed meal and raw pulped turnips, made a total gain of 461 pounds.

A careful resume of the results of this experiment showed that 2,025 pounds of meal plus 2,025 pounds of skim-milk was equivalent to 3,156 pounds of meal alone, or 2,900 pounds of meal plus 2,900 pounds raw mangels, or 2,700 pounds meal and 2,700 pounds cooked pulped turnips, or 2,760 pounds meal plus 2,760 pounds of raw pulped turnips. It will be seen from the above that the raw pulped turnips made unexpectedly cheap gains, and that the saving in this particular case over the feeding of cooked pulped turnips was insufficient to pay for the extra labor and fuel.

The outstanding feature of this experiment is the demonstration of the value of skim-milk when fed in limited quantities. It will be seen that 2,025 pounds of skim-milk fed with meal was equivalent to over 1,100 pounds of meal when no skim-milk was given, or was equivalent to 875 pounds of meal and 2,900 pounds of raw pulped mangels, or equivalent to 675 pounds of meal and 2,760 pounds of cooked pulped turnips, or equivalent to 735 pounds of meal and 2,760 pounds of raw pulped turnips.

I would advise the party from York County to cook his roots if the cost is not too great, but to feed a limited amount of grain to the growing stock. A finish ration of three weeks which includes some corn is sufficient. Generally speaking, the hogs should attain sufficient growth of bone and muscle during the first four and a half to five months and should be finished as quickly as possible.—E. S. A.

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The above products are sold by all dealers in dairy supplies.
Write to us for descriptive booklets and any other desired information.

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WANTED—A helper "by the year" for the Elmira Creamery. Experience not necessary. Apply to J. H. MUNNIE, Jarvis St. 394, Elmira, Ont.

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There is no load too heavy or strain too great for these all-steel hames. Two-piece double reinforced at points of greatest strain.
10% Stronger Than Any Other Home Made—Double reinforced steel. Riggs electrically welded—will not break; will not buckle—best—most correct traction.
Write for Our Descriptive Folder. We can furnish low tops and high tops. All sizes and best fittings for every kind of harness and harnessing. We are dealer for all kinds of harnessing and harnessing supplies.
McKINNON DASH COMPANY
Dist. G. St. Catharines, Ontario, Can.

British Columbia Dairymen Hold Successful Convention

Are in Favor of Compulsory Dairy Cattle Insurance to Cover Loss to Owners of Tuberculous Cattle

T. A. F. Wiancko, Provincial Dairy Instructor.

THE 18th annual convention of the B. C. Dairymen's Association, held at Chilliwack, Feb. 25th and 26th, was pronounced by all who attended the most successful that has ever been held. Over 200 dairy farmers were in attendance, many of them coming long distances. The most important feature of the meeting was the resolution dealing with the indemnity of owners for animals slaughtered because of reacting to the tuberculin test. The system of paying but partial indemnity as at present practiced has resulted in great loss to individual dairymen. A resolution was therefore passed that this association petition the Government of British Columbia to at once establish compulsory dairy cattle insurance that will provide adequate indemnity for animals slaughtered, and be maintained by equitable assessments from the provincial government as representing the public and from the owners of the cattle. He it further resolved that the executive committee of this association appoint a committee to proceed to Victoria and negotiate with the government for the passing of the necessary legislation at this session, that will secure the insurance on equitable lines.

President S. H. Shannon in his address congratulated the dairymen of the province on the fact that Canadian championships in butterfat production in all of the dairy breeds are held by British Columbia breeders, and that she is the home of the Holstein cow, "Zarilda Clothilde 3rd de Kol," the world's champion strictly officially tested cow in milk production. Mr. Shannon pointed out the great need for silos on dairy farms this year on account of the scarcity of millfeeds, and expressed the hope that before long every farmer in the province would be equipped with one or more silos. He advised the dairymen to keep in close touch with the oleomargarine situation, so that they would be in a position to take the matter of an embargo on its importation up with the government immediately on cessation of hostilities.

The directors reported a fairly prosperous year from the dairymen's standpoint. The high prices of milk feeds and scarcity of labor make all but efficient dairying unprofitable. The directors reported an increased membership and referred to the assistance they have received from the Department of Agriculture, particular gratification being expressed on the work of testing for bovine tuberculosis. They also referred to the Dairies Regulation Act which recently came into effect. This act provides that every creamery or dairy or other milk handling establishment accepting and dealing in or paying for milk or cream on the basis of its employment a properly qualified and licensed taster. In so far as the situation may be sized up at the present time the judicious prosecution of this law will result in uniting the several dairy interests of the province into closer and more cordial relationship, and in placing the dairy industry on a more permanent footing, through the establishment of confidence between the producer and purchaser.

Resolutions.

A number of resolutions were passed by the convention dealing with subjects of general interest to dairymen. A resolution was passed favoring a campaign by the executive committee to try to save worthy heifer calves from slaughter and make them available in districts in greatest need of them. By a resolution the convention endorsed the movement for the

economic increase of pork production in the province. In this connection another resolution was passed, "that in the opinion of the B. C. Dairymen's Association, the fixing by the government of a minimum weight at which hogs may be slaughtered in the province, would make it imperative that a minimum price be paid."

In view of the scarcity and excessive high prices demanded by seed dealers for farm seed, a resolution was passed favoring some effective movement among the members of the association for the production of farm seed and that some cooperative methods of handling and distributing same be worked out by the association. It was also decided to ask the government to do all in its power to substantially assist in the holding of larger fairs during the war with the purpose of encouraging the greater production of live stock which is so badly needed.

Among the speakers who addressed

the convention was Prof. T. A. Bovins, who spoke on soils and soil fertility. Prof. Bovins emphasized the importance of drainage and moisture conservation and urged the use of liquid manure. J. D. Mickle, State Dairy and Food Commissioner of Oregon, dealt with "Cooperation as Applied to Milk Production and Sale." In the discussion that followed it was shown that the membership of the Fraser Milk Producers' Association now numbers 90 per cent. of the dairy farmers of the Valley. Prof. J. A. McLean, brought before the convention the need for increased pork production. Dr. A. J. Damman of Vancouver, gave a paper on "Bovine Tuberculosis." A. B. Tweedle recommended the keeping of cost accounts by farmers and outlined a scheme whereby this work might be done in cooperation with the Department of Agriculture. Dr. B. T. Sims of Oregon State Agricultural College, addressed the convention on "Abortion in Dairy Cattle," and Prof. L. Stevenson gave an illustrated lecture on the course of which he stated that there are now over 500 silos in B. C. while in 1913 there were but 40 in use.

Officers for 1918.

The following officers were elected

for 1918: Honorary President, A. G. Wells, Sardis; President, S. H. Shannon, Cloverdale; Vice-President, J. W. Berry, Langley Prairie; Secretary-Treasurer, T. A. F. Wiancko, Department of Agriculture, Victoria, B.C.; Directors—J. M. Stoves, Steveston; P. H. Moore, Essondale; E. A. Wells, Sardis; G. S. Harris, Moresby Island; N. N. Grimmer, Port Washington; R. Hurford, Courtenay; M. Hererson, Kelowna; A. W. Hunter, Armstrong; R. L. Mitchell, Golden.

Legume Hay Versus Grain

ONE hundred and seventy-five pounds of good alfalfa or clover hay is worth as much as 100 lbs. of the ordinary grain feeds. With the present prices for feeds ranging from \$35 a ton for bran to \$85 per ton for corn, the average cost for 100 lbs. of grain is about \$2.75. The cost of its food equivalent in the form of 175 lbs. of legume hay is \$2.15. This much hay will produce 200 lbs. of milk and effect a saving in feed cost of 60 cents, which is at the rate of 30 cents for each hundred pounds.

The utilization of such hay partly solves the dairymen's problem of these days of high feed cost and milk investigations—G. E. Weaver, University Farm, St. Paul, Minn.

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It's no exaggeration to call this book—

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a money-saver. It makes money by saving money—for every farmer who reads it and who acts on the advice and instructions it contains. How does it save money? Simply by telling how to build farm improvement of Concrete.

The farmer nowadays realizes that he is under a terrible handicap in his efforts to make money, if he has to be constantly sinking profits in repairs. Only by using Concrete can he have buildings that do not call for repairs and painting. Only with Concrete for his building material can he have his farm fireproof, waterproof, watertight, repair proof, vermin

proof and sanitary.

In our 100-page book, there are directions which enable the farmer to construct all sorts of improvements of Concrete, in odd times—with the help of saving book. Mark on the coupon the subjects which are of immediate interest to you.

By building Roads of Concrete we can reduce the cost of living, and at the same time increase the farmer's profits on everything he sells or buys. The writer of the farm demands Permanent Highways of Concrete. Our farmers need them for the hauling of garden-trucks, fruits and dairy products into town. On Concrete alone can the hauling be done economically. It provides the only surface that resists wear and tear of modern traffic. Complete road building as it is for successful farm construction. Concrete roads, like Concrete buildings, pay for themselves in the savings of repairs.

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CIRCULATION STATEMENT.

The paid subscriptions to Farm and Dairy amounting to 20,000. The actual circulation of each issue, including copies of the paper sent to subscribers, who are but slightly in arrears, and sample copies, varies from 30,000 to 25,000 copies. No undelivered copies are received at less than the full subscription rates.

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

OUR GUARANTEE.

We guarantee that every advertiser in this issue is reliable. We are able to do this because the advertising columns of Farm and Dairy are as carefully edited as the reading columns, and because to protect our readers, we turn away all unscrupulous advertisers. Should any advertiser herein deal dishonestly with you as one of our paid-in-advance subscribers, we will make good the amount of your payment. If such a transaction occurs within or month from date of this issue, that it is reported to us within a week of its occurrence, and that we find the facts to be as stated, it is a condition of this contract that in writing to advertisers you state: "I saw your advertisement in Farm and Dairy."

Requests shall not pay their trade at the expense of our subscribers, who are our friends, through the medium of these columns; but we shall not attempt to adjust trifling disputes between subscribers and honorable business men who advertise, nor pay the debts of honest bankrupts.

The Rural Publishing Company, Ltd

PETERBORO AND TORONTO

"Read not to contradict and to compute, nor to believe and talk for granted, but to weigh and consider."—Bacon.

Will Famine Follow War?

Will famine follow war? The time has come for a careful accounting of our food supplies, not only in Canada, but in all of the allied world. He who would even suggest famine a few months ago, was a "calamity howler," a "blue ruin pessimist" if you please. But there is now no disposition in official circles to be unwisely optimistic. The real gravity of the food problem is now coming to be fully appreciated by all thoughtful men. Here are a few of the factors in the situation that challenge attention.

The average wheat crop of the United States for the past five years has been 543,000,000 bushels. The estimated crop for 1918 is 3,000,000 bushels below this average. In Canada the fall wheat crop is not above normal in acreage and is decidedly below normal in condition. Even the greatest estimated increase in spring wheat planted in Canada would not overtake the demand for wheat from hungry European countries. Then in connection with meat supplies it is interesting to note that while in 1917 the leading cattle markets of America showed increased receipts, these increased receipts do not indicate an increased production. In fact, the reverse is the case and too large a proportion of the cattle marketed last year were merely a draft on future supply. In hogs, over all of America in 1917, there was a decrease in receipts on leading markets of approximately 3,200,000 head as compared with 1916. High prices of mutton also are primarily due to decreased supplies, but in the case of both hogs and mutton, considerable increases are hoped for in 1918.

With the situation before us, there is no room for either despairing pessimism or reasonless optimism. There is, however, every room for active, energetic effort. Both European countries are dependent for food on the agricultural output of the United States and Canada. This output depends on the individual efforts of individual farmers. Our Departments of Agriculture and organization committees can help and will help, but back of it all, and determining the success or failure of the production campaign,

stands the American farmer. It is indeed his year of opportunity. He alone can avert the threatened world famine. But in accomplishing his great task, let it be remembered that he will do his best work unimpeded by legislative disabilities or outside interference.

Take Over Railways

(Grain Growers' Guide.)

THE big railway problem in Canada is not yet settled. Conflicting reports come from Ottawa as to what the government is likely to do but nothing official has been announced. The overwhelming opinion of Western Canada is undoubtedly reflected in the resolutions of the farmers' conventions demanding that all the railways be taken over by the government. Halfway measures will give no satisfaction. If the government takes over the poverty-stricken roads and leaves the C. P. R. to operate as a private concern it will be little short of a national disaster. The business like thing to do would be to take all the roads and put them under the management of the most capable officials of the C. P. R. They have proven that they know how to operate a railroad. To put them under the Railway Commission would be a blunder. If the government takes over all the roads the Railway Commission might well be abolished, as it does not possess the confidence of the public and has not the ability to operate a railway system. Now is the time to make a definite end of railway influence in national politics and to give a war-time efficiency in our transportation facilities.

The Cow Wins

PROF. JORDAN, of Cornell University, one of America's leading chemists, has been investigating the efficiency as food producers of all classes of farm live stock. His conclusions, now published, are flattering to the dairy cow. They show that for 100 pounds of digestible matter consumed, the cow produces 18 pounds of edible solids suitable for human food, while pigs come in second place with 15.5 pounds, and edible solids per 100 pounds of digestible food eaten, and beef steers are away down near the bottom of the list with only 2.8 pounds of edible solids for the same amount of food consumed.

These investigations explain why the dairy cow is popular wherever intensive agriculture is practiced. They also explain why dairying always increases as land values reach or pass the \$100 mark. Practical farmers have always known that the good dairy cow will pay for greater labor and overhead expense than any other farm animal; Jordan has furnished a scientific explanation of the cow's efficiency as a money maker. Present conditions may seem to put the dairy farmer at a disadvantage, but in the long run, if he holds on to his herd, he is sure to win out. The efficiency of the dairy cow as a producer of human food is his best guarantee of ultimate success.

Our Duty to the Boys

ONTARIO is enlisting 10,000 boys from her high schools for service on the farms. Other provinces are recruiting a proportionate number of farm helpers from the same source. We anticipate that the labor of these boys will be as big a contribution to the winning of the war as the work of several divisions of soldiers. Their worth has already been well proven; for the past couple of years high school lads have been going to the farms, and farmers who have had them declare that they are the best class of help that the city has sent to aid in the work of production. It will be good for the boys, too. Work in the open will make better men of them. The knowledge that they are helping to save the world from famine will teach many of them the joy of sacrifice.

Why not keep these boys on the farms? Many of them will get a taste for country life and country work. And this country needs more farmers; as one agricultural leader puts it, "Men who own their own farms and their own souls." Certainly there should

be lots of room for them in rural Canada. Our population is only about six to the square mile. Only a fraction of our fertile areas are yet under cultivation, particularly in the prairie provinces and in British Columbia. The regrettable fact is, however, that unless these boys are willing to serve a long apprenticeship as casual laborers, and perhaps farm tenants, they will have little hope of owning farms of their own. Farm lads, which should be available for the asking to bona fide settlers, are held up by speculators. Free homesteads that are worth the taking are practically a thing of the past. Good land can be had only by paying the speculators' price, and that price is usually as high as conditions make possible. If we wish to retain on the farm those boys who would like to stay with us, we will have to make farm land more easily obtainable. The best method yet suggested for making the speculator let go is a stiff tax on the unimproved value of land. Such a tax, by exempting improvements, will work to the advantage of every bona fide farmer. Only the speculator will have reason to object to its operation.

If Prices Are to Advance

IT is widely rumored that the United States Food Administration is seriously considering the advisability of advancing the maximum price of wheat to two dollars a bushel. If such action is taken across the border, an advance in prices in Canada is almost inevitable. The feeling has been prevalent for some months now that "the price of wheat is now fixed much lower than the law of supply and demand warrants. The best evidence of this is the advance in all other lines of coarse grains; such an advance, in fact, that wheat can now be had as cheaply as any other grain, and there is a danger that much good milling wheat will be fed to stock. The same business considerations that now lead many farmers to feed wheat, may also lead them to seed with oats in the spring on land that would grow spring wheat to excellent advantage.

The most effective way of putting a stop to the feeding of wheat is to put the price where it will not be profitable to feed it. The same action would greatly encourage spring wheat seeding. But if any action is to be taken, especially in connection with the fixing of a price on the 1918 crop, it should be taken now. Farmers are now laying their plans for the crops of the coming season. The price that they expect to get for their wheat will naturally affect the acreage seeded. If an advance is contemplated, now is the time to announce it. It would be the most effective kind of an inducement to a record spring wheat production in 1918.

Substitutes for Corn Ensilage

IN another three months the Canadian corn crop will be planted—if it is to be planted at all. In normal years two-thirds of the necessary seed corn is at this date in the hands of either farmers or dealers. This year practically none has yet been made available. No seed corn is available from Canadian sources. None is permitted to be brought in from the United States. Arrangements have been made through the Seed Branch, it is true, for the procuring of a supply for Canadian ensilage growers, and the majority of farmers will find their needs amply met. If there is only about seventy per cent. of a supply in the United States, however, there is a long chance that many Canadian growers may not be fully supplied. With transportation difficulties such as they are, there is a further chance that shipments may be delayed until too late to be of any use this year. For all such contingencies we must be prepared.

Preparedness in the case of ailing the silos may take the form of an extensive use of substitutes for corn. Peas, oats and vetches have been used quite extensively and very successfully in the Maritime Provinces, and in New Ontario. Red clover has been ensiled in British Columbia, and to a lesser extent in Ontario. Sweet clover has also been used by a few in Ontario, and seemingly with good results. Corn will always be the premier silage crop, but it is satisfying to know that if we can't get it, there are satisfactory substitutes.

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The Memorial on Cheese Prices

As Presented to the Hon. T. A. Crerar, Minister of Agriculture, Ottawa, on February 21st

WE, the dairymen of the Province of Ontario in convention assembled desire to memorialize the Dominion Government that the price of cheese for the year 1918 be set at a higher figure than that for the season of 1917.

In presenting this we first wish to point out our deep appreciation of the work accomplished by the Cheese Commission during the past season. We consider the price set for last year was generally accepted as a fair remuneration, but owing to the increase in cost of production and manufacturing, it will be necessary for the producer to receive a substantial increase in the price of cheese for the coming season.

If the price of cheese is not such that the producer can realize a fair margin of profit, many of our best dairymen will be driven out of the business, and we view with alarm the possible disorganization of Ontario's greatest industry, which has been built up by the untiring efforts of half a century. We also wish to call your attention to the fact that the by-product of the cheese factories can be attributed to a large measure, the number of bacon hogs produced in Ontario.

No selfish motive prompts us in this matter. We feel it a patriotic duty to produce to the utmost of our capacity, but we feel that the production of cheese will materially decline if the price is not arranged to allow for the producer a fair margin of profit.

In addition to all this the producers of milk for the manufacture of cheese are compelled to meet the competition from milk condenseries, milk powder factories, and town and city milk trade, in all three of which there is practically no limit set for the price to be paid for milk, whereas the cheese-milk producer has a price limit set for his finished goods. This makes unfair competition.

Taking the average price paid for milk by condenseries and powder milk concerns during the year 1917, which prices are ever higher are likely to be paid in 1918, and after making due allowance for the added value of the by-product, viz., in cheese manufacture, it would seem reasonable that the price of cheese for 1918 ought to be materially increased in order to place the cheese factory patrons and manufacturers on an equal basis with other lines of the dairy industry.

Increasing Costs.

We submit for your consideration the following comparisons:
From reports of auction of dairy cattle sales and other reliable sources dairy cattle are averaging from 15 to 25 per cent. higher than the prices realized in 1917.

The price of feed, which figures largely in the cost of production, has materially increased during the past few months. Bran is quoted f.o.b. Fort William at \$24.50 and shorts at \$29.50 in car load lots. These prices have been fixed by the Food Controller. With freight charges and dealers profits added, this means a ton and four for shorts of \$40 to \$45 a ton. Even at this price bran and shorts can be obtained only in very limited quantities making it necessary for the dairymen to feed even more expensive concentrates such as oil cake meal and gluten, etc. These also have increased in price from \$6 to 40 per cent.

Labor.

The labor situation is acute. It is almost impossible for the dairymen, on account of the nature of the work involved, to secure competent help. In 1916 dairymen will have to pay at

least 25 per cent. more wages for labor than in 1917.

Manufacturing.

On account of the great scarcity of material used in the manufacture of cheese, the cost of manufacturing has been materially increased. This increase equals at least one-half cent a pound of cheese.

It is the opinion of this convention that a higher price for cheese resulting in a reasonable profit to the producer would maintain and stimulate the production which is so essential in this present crisis.

Cost of Production.

To show that the producer has not been getting an undue margin of profit we beg to submit the following statement taken from a press report issued under date of Feb. 11th, by Mr. E. S. Archibald, Dominion Animal Husbandman, of the Central Experimental Farm.

"We recently compiled the cost of production in a herd which produced 6500 lbs. per cow, and with feed at present prices discovered that we were scarcely breaking even, although valuing milk at \$2.50 per cwt." The average prices realized by dairymen supplying milk to cheese factories last year ranged from 11.65 to 13.85 per cwt., according to districts and methods of handling the milk.

In another press report issued by the Dominion Experimental Farm last week we find this statement:

"In one investigation conducted on 25 dairy farms keeping an average of 400 cows, the average profit per cow per year was \$5.25, which out of 25 dairies 25 per cent. reaped no profit at all."

The overhead charges upon the average dairy farm have increased in the past year by at least 25 per cent.

We would also suggest that one member of the cheese purchasing commission for 1918 be a practical dairyman.

We wish to assure you, Sir, that our sole object in asking for this increase is to stimulate production. In this matter the dairymen are willing to cooperate with the Government. Is the Government willing to cooperate with the dairymen—J. A. Campbell, T. A. Thompson.

Fraser Valley News

In sending Farm and Dairy a copy of their constitution and by-laws, Mr. C. E. Eckert, Secretary of the Fraser Valley Milk Producers' Association, writes as follows:

"We have introduced two new features, which I think are very attractive to our members. One is a reference to our election of directors. Instead of voting by proxy, where a few men vote the entire membership, we shall hold an election at each local, where every member may register his vote for the full number of directors to be elected. This makes the board the real choice of the membership."

"Then we have set aside 10 per cent. of our capital to be used for the purpose of redeeming a members' stock, or share, in case he becomes a non-producer. For renters or others who are in the dairy business temporarily, this affords a sure way of securing the benefits of members and a return of their capital when they retire from the business."

Two varieties of sweet corn, Golden Bantam and Stowell's Evergreen were tested by the Experiment Station in Ontario last season. The former was ready for the table in 94 days, the latter in 104 days. Golden Bantam too scored higher in number of ears, flavor and juiciness. As a table corn it seems to be in a class by itself.



THE NEW DE LAVAL CREAM SEPARATOR

Every Reflection Shows Perfection

VIEWED from every angle, the De Laval is distinctly in a class by itself. It has a business-like appearance. It looks as if it were well made, and it is. It looks sturdy, and it is. There is no make-believe about it anywhere, from the wide-spreading substantial base to the solid, seamless, symmetrical supply can.

It's no wonder that big dairymen and creamerymen who have for years made a careful study of dairy methods and machinery refuse to consider any other separator but the De Laval. They know that from every angle—clean skimming, ease of operation, freedom from repairs, durability—there is no other cream separator that can compare with the De Laval.

They know that it has a record of 40 years of service behind it. They know that it can be depended upon. They know that they can't afford to take chances with any other cream separator—And neither can you.

Order your De Laval now and let it begin saving cream for you right away. Remember that a De Laval may be bought for cash or on such liberal terms as to save its own cost. See the local De Laval agent, or if you don't know him, write to the nearest De Laval office as below.

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Sole manufacturers in Canada of the famous De Laval Cream Separator and Ideal Cream Feed Sifts. Alpha Gas Engines, Alpha Cheese and Butter-Workers. Catalogues of any of our lines mailed upon request.

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When Writing Mention Farm and Dairy

OUR FARM HOMES



WOULDST thou first pause to thank thy God for every pleasure, for mourning over griefs thou wouldst not find the leisure.—*Ruckert.*

The Heart of the Desert

(Continued from last week.)

THE two men mounted and galloped along the mesa wall, looking for an ascent. Neither of them spoke but both were breathing hard, and through his blistered skin DeWitt's cheeks glowed feverishly. For a mile up and down from the fissure the wall was a blank, except for a single wide split which did not come within fifty feet of the ground. After over half an hour of frantic search DeWitt found, nearly three miles from the fissure, a rough spot where the wall gave back in a few narrow crumbling ledges.

"We'll have to leave the horses," he said. "And try that."

Jack nodded tensely. They dismounted, pulled the reins over the horses' heads and started up the wall, John leading, carefully. One bitter lesson the desert was teaching him: haste in a hot country spells ruin! So, though Rhoda's voice still rang in his ears, though the sight of the slender boyish figure struggling in Kut-le's arms still ravished his eyes, he worked carefully.

The ascent was all but impossible. The few jutting ledges were so narrow that foothold was precarious, so far apart that only the slight backward slant of the wall made it possible for them to flatten their bodies against the crumbling rock. They clung and thus kept from falling. They toiled desperately, silently. After an hour of utmost effort, they reached the top, and with an exclamation of exultation started in the direction of the fissure. But their exultation was short-lived. The great split that stopped fifty feet from the desert floor cut them off from the main body. They ran hastily along its edge but at no point was it to be crossed. Shortly DeWitt left Jack to follow it back and he hastened to the mesa front where he made a perilous descent and returned with the horses to Porter.

That gentleman forced John to eat some breakfast while Carlos rode hastily to scour the mesa front to the west. Porter and the Mexican had captured two of the horses, and the other horses had run out into the desert back to the last spring they had camped at, Porter said. To DeWitt's great disappointment, the horses carried only blankets, and the burro was loaded with bacon and food. There were none of Rhoda's personal belongings. The animals were in good condition, however, and the men annexed them to their outfit gladly.

John was torn betwixt hope and bitter disappointment.

"Do you think they could climb out of the fissure?" he asked half a dozen times, then without waiting for an answer. "Did you see her face, Billy? I had just a glimpse! Didn't she look well! Just that one glance has put new life in me! I know we will get her! Even this cursed desert isn't wide enough to keep me from her!

found at the bottom in a burlap bag." He tossed one of Cecilia's pitch baskets at Billy, then threw himself in the sand.

"They were down off the mesa, I bet," he went on, "before we found her way up, and it was easy for the chap they left guarding the entrance to avoid us. The mesa is covered with big rocks."

"Well, I got away with the last half-bur then," said Billy. "For I didn't stir from this spot until the burro started to eat the grub pack, and I naturally had to wrestle with him. And no human being could get out the front even then."

"God! What a country!" groaned DeWitt. "The Indians outwit us at every step!"

"Well, Jack answered dejectedly, "tell us what we could have done differently."

"I'm not blaming any one," replied John. "But Porter rose briskly.

"You boys cut your kicking. The scent is still warm. You fellows get a couple of hours' sleep while I take the horses over to Coyote Hole for water. By day's night we got to be on the south side of the mesa to pick up the trail."

Billy's businesslike manner heartened Jack and John DeWitt. They turned to beside Carlos, who already was sleeping.

Dawn found them examining the ascents on the south side of the mesa but they found no traces and as the sun came well up they followed the only possible way toward the moun-

"You saw Apache named Kut-le?" The buck shook his head, but Billy went on patiently.

"Yes, you saw him. He old Ke-say's Apache chief's son. He run off with white squaw. We want squaw, we no hurt him. Squaw sick, no good for Injun. You tell, have money?" Billy displayed a silver dollar.

The Indian brightened.

"Lons time 'go, some Injun say he sawe Kut-le. Some Injun say he all same who name. Some Indian say his quirlingly, and Billy nodded approval. DeWitt swallowed nervously. "Come two, three days ago, the buck went on his eyes on the silver dollar, "the Injun, carry white squaw, go by here very fast. He no that way all heap fast." The buck pointed south.

"Did he speak to you? What did he say?" cried DeWitt.

But the Indian lapsed into silence and refused to speak more. Porter felt well rewarded for his efforts and tossed the silver dollar to the Indian. "Good," said Billy, "they started elated down the mountain. "I wish we could overtake him before he outfits again. That poverty-stricken fool couldn't have had the money to give him to use. I'll bet he makes for the nearest ranch where he could steal a good bunch. That would be at Kelly's, sixty miles south of here. We'll have to try."

This idea did not meet with enthusiastic approval from the other three but as no one had a better suggestion to make, the trail to Kelly's was taken. It seemed to John DeWitt that Billy relied little on science and much on intuition in trailing the Indians.

At first, considering Porter's early boasts about his skill, DeWitt was much disappointed by the old-timer's haphazard methods. But after a few weeks' testing of the terrible hardships of the desert, after a few demonstrations of the Apache's cleverness, John had concluded that intuition was the most reliable weapon that the whites could hope to discover with which to offset the Indian's appalling knowledge.

It was an exhausted quartet with its string of horses that drew up at Kelly's dusty corral. Dick Kelly, a stocky Irishman, greeted the strangers pleasantly. When however, he learned their names he rose to the occasion as only an Irishman can.

"You gentlemen are at the end of your rope, will the end fray at that?" he said. "Now come in for a few hours' rest and the Chinaman will cook you the best meal he knows how."

"Lord, no!" cried Billy. "We're so close on the trail that we can hang on to the end. If you've had no trace here we'll just double back and start from the mountains again!"

By this time a dozen cowboys and ranchmen were gathered about the newcomers. Every one knew about Rhoda's disappearance. Every one knew about every man in the little search party. In the flicker of the lanterns they looked pityingly at DeWitt's haggard face.

"Say, said a tall, lank cowman, "if you'll go in and sleep till daylight, un'il scour this part of the desert with a fine-tooth comb. So you all lose a few minutes by taking a little rest. As if we find the Injun we'll string him up and save you the trouble."

DeWitt spoke for the first time. "If you find the Indian," he said succinctly, "he's mine!"

There was a moment's silence in the crowd. These men were familiar with elemental passion. DeWitt's eyes blazed with a fierce fire in his eyes. The pause came as each pictured himself in DeWitt's place with the image of the delicate Eastern girl suffering who knew what torments constantly befell her.

"If Mr. Kelly can arrange for that," (Continued on page 16.)



When the Farm Driver Fills the Capacity of a Lawn Mower.

It is a treat for the farm driver to be allowed to nibble the tender grass which DeWitt was taken on the farm of Mr. Wm. Fraser, Huron Co., and shows 31. Dave Fraser giving his driver an "extra special" meal.

they have got out, though, it's just a matter of finding their trail again. We'll have 'em! It's just this chance crack that saved 'em. If you're rested, ride along the west wall and try for the top again."

For the next five hours, Porter guarded the mesa front alone. It was nearing six o'clock when Jack returned, exhausted and disappointed. He had followed the great split back until the mesa top became so cut and stratified with mighty fissures that progress was impossible.

"Isn't it the devil's own luck," he growled to Porter as he ate, "that we should have let him get into that one crack! What next! Unless they are still in there, we've lost them and are just losing time squatting here."

As he spoke, there was a sound of voices in the fissure. The two men cocked their rifles as John and Carlos emerged from the opening. John was scowling and breathless.

"Lost 'em as usual, by our infernal stupidity!" he panted, while Carlos dropped his empty canteen and lifted Porter's to his lips. "I rode round to the south of the mesa. There are a couple of possible ascents there. I found Carlos making one. We followed a dozen fissures before we located this one. We got into it about a mile back from here. Here's a basket we

tains. At noon they found a low spring in a pocket between mesa and mountain. Kut-le was growing either defiant or careless, for he had left a heap of ashes and a pile of half-eaten desert mice. Very much cheered they allowed the horses a fair rest. They found no further traces of camp or trail that day and made camp that night in the open desert.

At dawn they were crossing a heavily wooded mountain. The sun had not yet risen when they heard a sound of snoring.

"What's that?" asked DeWitt sharply, as the four pulled up their horses. "A medicine cry," answered Jack. "We must be near some medicine-man's campus."

"Come on," cried DeWitt. "we'll quils them!"

"Hold up, you chumps!" exclaimed Billy. "If you rush in on a cry that way you are apt not to come back again. You've got to go at 'em careful. Let me do the talking."

The ride toward the sound of the chant and chorus of a dingy campus came into view. An Indian buck made his way from the doorway toward them.

"Who is sick, friend?" asked Billy. "Old buck," said the Indian.

"Apache," said Billy. "The Indian nodded.

The Upward Look

The Pains God Takes

WHATEVER they had thought to do, do it with might.—Ecc. 9:10.

At an illustrated lecture recently, I had an introduction to the minute and most creatures that are by no means popular in our land—those responsible for, and producing diseases among our domestic animals, from east to west in our Dominion.

These they were shown most clearly on the slides—swimming easily around the tiny blood corpuscles, clinging tenaciously to the hides, or shown doing their desperate work in many a different way. They were magnified to such an extent that one could see clearly how minutely, or quietly and beautifully they were made. Thus in the hands of the Mighty Creator there are of our vast universe some best and fit to take such infinite pains with these tiny animals.

It sent me back with fresh energy and determination to the ordinary tasks of every day. It made me right in God's sight, that we also must do to the best of our ability, every duty, no matter how insignificant, that is ours to do.

Not only is it our duty to make the results durable, but also as inviting and attractive as we can. It is not only the pleasantest work, but we must take these same pains with, but the disagreeable and the trying and the irksome.

No one can estimate the important results that may depend on the right doing of trivial duties. Whether or not important results may be the outcome of trivial duties performed, they are worth doing.

There is especial need for painstaking and conscientious work, in all that pertains to religious and philanthropic work. The seemingly unimportant and insignificant things too need the painstaking and skillful hand and heart, mind and soul.—I. H. N.

Are We in a Rut?

With the Household Editor.

IT is surprising is it not, how easy it is to get into a rut in connection with our household duties? So much so that even if new ways of doing things are brought to our attention, we do not try them out. If asked the reason why we do not take kindly to the new methods, we may find it rather difficult to give a good sound reason, except that we have always been accustomed to doing things a certain way. A little incident which came to our attention, recently goes to prove our contention that it is hard to move out of the beaten path.

A woman who expected to be away from home for two or three months, had her neighbor help her buy a bread mixer, as this neighbor had to bake twice a week for four hearty men, besides many other household duties and a baby to care for. When the woman returned from her visit, the bread mixer was returned to her without having been out of its wrappings. This was a surprise to the woman, as her neighbor had often complimented her on her perfect bread-mixer. "What was the matter with the bread mixer?" asked the woman who had just returned from her visit.

"Oh, nothing," was the reply. "I'm so used to kneading my bread, and the boys like it so well, and—" The neighbor woman stopped confused, as she could see she could give no sound reason for not having made use of the mixer. How many of us could be found guilty of the same offense if cornered by some of our friends? We are making a big mistake if we do not use every up-to-date machine or dollar we work efficiently, on which we can lay our hands. We should also grasp every opportunity of securing labor saving devices which will help us to

get through our work more quickly. Every stroke of work which we can make machinery do for us leaves just that much time for us to do other things. We can then find time and energy to do our share of reading, visiting, church work, attendance at meetings of the women of our neighborhood, entertaining of our friends and to get a rest that will be possible if we still cling to old methods. Let us resolve that we are going to advance with the times in which we live, and that no one will have an opportunity to accuse us of living in "a rut."

Am I Wasting Anything

NOTWITHSTANDING the many appeals which are being sent out through all parts of our Dominion to practice thrift, there is still much wastage going on. Many of us are economical in a large degree, but there are others who claim they are not wasting things, simply because they do not yet realize what saving means.

Waste is simply not saving things which are useful. It arises largely from the fact that we do not know what things are useful. Our great national ignorance is in connection with things which now go into the discard. The waste of these things is so great that if it could be itemized and aggregated it would stagger us. When we read, not only the war broke out about the Germans countermine, cavestroughs, old kettles, and roofing, and even church images,—anything containing copper,—for the making of munitions; when we read about them saving grease and rags, any waste paper and old rubber, even the rubber tips of pencils; when we read of those being put on strict food rations—we thought we had them beaten. But it is this great national ignorance that has saved Germany until the present time.

Advice which comes to us from the Food Controller's Department points out that saving of food, reduction of waste, substitution of other things for things essential to our allies, are part of the gospel of war-wisdom. Saving is another form of production. We cannot always produce, but we can always save. The things that is saved takes the place of the thing that cannot be produced. Here are some of the ways in which much food is wasted:

In peeling potatoes, the loss is 20 per cent.

In stale bread.
In bread crumbs.
In table scraps.
In kitchen garbage.
In the fats of meats.
In meat and chicken bones.
In the sour milk and buttermilk, that is thrown away.
In fats which we neglect to render.
In eating more than we really need.
In eating the wrong kinds of food.
In frying meats and not saving the fats.

In not substituting other foods for the beef, wheat and bacon, which are needed overseas.
In improper cooking.
In feeding too much protein (albumen in eggs and gluten in flour) to old persons and persons of sedentary habits.
In keeping too many domestic pets, which consume good food.
In leaving food uncovered to be wasted or spoiled by vermin.

Some Uses for Newspapers

WE are continually being advised to save all papers in our homes, in order that they may be sold for Red Cross purposes. This is a splendid way of disposing of the papers which soon pile up in us. In our zeal to save all possible in the aid of Red Cross, however, let us not overlook the fact that there are many ways in which we can make use of newspapers in the kitchen to make our work easier. So let us save a few

out of the pile in order to have them on hand as kitchen helpers. Here are some of their uses:

Cooking pans are unpleasant things to clean at any time, and by wiping them out with newspapers before washing, they are more easily cleaned.

Wipe the greasy stove immediately after cooking or frying with newspaper, and keep it looking bright and clean.

Spread newspapers on the kitchen table while preparing meals, and thus save much scrubbing of the table.

Wipe the mud from boots and shoes with paper before it dries.

Newspapers spread on shelves in the pantry or kitchen can easily be renewed, and in this way the shelves may be kept neat and fresh looking.

A coat hanger may be improvised from a newspaper by folding it through the center and continue folding or rolling until it is a compact piece about three inches wide. Bend it downward in the middle and tie with a cord, forming a loop. It will answer the same good purpose as a hanger of wood or metal.

These are but a few of the many uses to which newspapers may be put.

Use the Bean Pot Frequently

BEANS are rather a scarce article, but those of us who are fortunate to have them of our own growing or have been able to purchase them, will find them very palatable and nutritious. Beans have been described as "the poor man's beef," but they may well take the place of meat nowadays in all our homes. They contain almost all the necessary ingredients to build up the tissues of the body, and supply heat and energy. The only principle beans lack is fat, and for this reason it is a good idea to serve some fatty food with them, such as a bacon, pork or a sauce containing butter. While pork or bacon are considered pretty well out of the running these days, it does not require much of either to serve with a good sized dish of beans, but a butter sauce will also answer requirements nicely.

Beans require long and slow cooking, and are the better for soaking overnight. It is claimed too that when cooking beans, if a pinch of baking soda is added, it will add to the digestibility of the beans. Here with are a few bean dishes, any one of which will make a good foundation for a meal. Boston baked beans, if prepared as follows, are recommended as being particularly appetizing and nourishing.

Boston Baked Beans.

Pick over one quart of dry beans, cover with cold water and soak overnight. In the morning drain, cover with fresh water, heat slowly (keeping water below boiling point), and cook until skins will slip off. Drain. Scald rind of one-half pound of fat salt pork, scrape, cut in one-fourth inch cubes and put in bottom of bean pot. Cut through rind of remaining salt pork and put in and bury pork in them, leaving the rind exposed. Mix one tablespoon salt, three tablespoons molasses and one tablespoon sugar; add one cup boiling water and pour over beans, then enough more boiling water to cover beans. Cover bean pot, put in oven and bake slowly six or eight hours, uncovering the last half hour of cooking, so that rind may become brown and crisp. Add water as needed while beans are cooking.

Lima Beans.

These make a most delicious vegetable served either with meat, butter or with cream. Soak one cup dried beans over night, drain and cook in boiling water until soft; drain, add three-fourths cup cream and season with salt. Reheat before serving, or instead of the cream use enough butter for seasoning. Any kind of dried beans may be treated in this way, but probably the Lima bean possesses choicest flavor.

Boston Roast.

Two cups dried beans; one cup bread crumbs; two cups grated cheese;

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three teaspoons salt; one-half cup liquid; one tablespoon chopped onion. Soak beans 24 hours, cook in salted water until soft. Drain, put through meat grinder, add onion, cheese, crumbs, more salt if needed and enough of the water in which beans were cooked to moisten (about one-half cup). Form into loaf, bake in moderate oven for 40 minutes. Baste occasionally with hot water and fat. This will serve about 10 people.

Meek Chicken.

Two cups cooked beans; one and one-half cups stale bread crumbs; two tablespoons butter or butter substitute; three-quarters cup milk; three-quarters teaspoon salt. Press the beans through a fine strainer. Add the milk and arrange alternate layers of bean pulp and buttered crumbs in a buttered baking dish. Cover with buttered crumbs and bake in a moderate oven 45 minutes. To butter the crumbs, melt butter and stir crumbs into it, thoroughly mixing them. This may be served with tomato sauce, made as follows:

Tomato Sauce.

Two tablespoons butter; two tablespoons flour; one cup tomato juice; one-half teaspoon salt; one-quarter teaspoon pepper. Cook tomatoes until soft, and press through strainer, or use canned tomatoes. Melt butter, add flour, mixing thoroughly, then add the hot tomato and bring to boil, stirring constantly. Add seasoning and serve. A little chopped parsley, a few cloves or bay leaves may be added to the tomato while cooking the first time.

Get Schools to Take a Hand

M. R. W. H. Stevens, Public School Inspector, in a recent circular letter to the teachers in the district of Victoria Co., Ont., urges that an effort be made by them and their pupils to raise foodstuffs during the current year. Mr. Stevens advised the teachers to organize a club in the school for the purpose of raising foodstuffs, either on part of the school grounds or on a plot near by. He adds the following instructions:

"Act as Honorary President, and elect the other officers from among the pupils. Work up all the enthusiasm possible. Beans, carrots, parsnips, tomatoes, potatoes can easily be raised. There should be no trouble to secure the ground and the seed. This plan should work in cooperation with the school fairs and Mr. A. A. Knight, the Agricultural Representative, will offer school prizes for collections from these plots, in connection with the School Fairs. This work is not intended to interfere with home plots nor with any other activity of pupils or teacher.

"All extra food that can be raised will be needed and every little that can be raised and used at home will release something that can be sent to Europe to supply our own brave boys who are doing such noble work in fighting for us at the front."

One Square Meal

MONDAY—we'll say it is our "Heartless Day."
One cinder, one flicker, one coal.
TUESDAY—well—this is our "Meatless Day."
One oyster, one herring, one sole.
WEDNESDAY—oh, this is our "Weatless Day."
One corn cake, one dodger, one sconce.
THURSDAY—we must have a "Sweetless Day."
One pickle, one lemon, one bone.
FRIDAY—will make a good "Eatless Day."
One cheerful and glorious fast.
SATURDAY—call it a "Frestless Day."
For all recipients of patios, etc., we pray.
But Sunday—may Hoover forgive us, we pray.
If we should all happen to feel A little more hungry than usual today,
—And once again eat a square meal.

The Heart of the Desert

(Continued from page 14.)

said Jack, "I guess I will about save our lives. I'd-like a chance to write a letter to my wife."

"You ought to go back to the ditch, Jack," said DeWitt. "Porter and I will manage somehow."

Jack gave DeWitt a strange look. "Rhoda's a lifelong friend of mine. She was stolen from my home by my friend whom I told her she could trust. Katherine and the foreman can run the ranch."

By the time that the four had washed themselves, Kell had his hands dotted over the surrounding desert. For the first time in weeks, the searchers sat down at a table. DeWitt, Porter and Newman were in astonishing contrast to the three who had dined at the Newman ranch the night of Cartwell's introduction to Porter. Their khaki clothes had gradually been replaced by nondescript garments picked up at various ranches. DeWitt and Porter boasted of corduroy trousers, while Jack wore overalls. On the other hand, Jack wore a good blue flannel shirt, while the other two displayed only faded gingham garments that might have answered to almost any name. All of them were a deep mahogany color, with chapped, split lips and bleached hair, while DeWitt's eyes were badly inflamed from sun-glare and sand-storm.

They ate silently. Dick Kelly, sitting at the head of the table, piled them with food and asked few questions. DeWitt's glaucous hands told him that questions were torture to the poor fellow. After the meal Kelly led them to bed at once, and they slept without stirring until four o'clock in the morning, when the Chinaman called them. Breakfast was steaming on the table.

"Now," said Kelly, as his guests ate, "the boys didn't get a smell for ye, but we've a suggestion. Have you been talking to the Pueblo country yet?"

"No," said Porter.

"Well," the host went on, "Chira is the only place round here except my ranch where he could get a new outfit. He's part Pueblo, you know, too. I'd start for there if I was you."

Carlos entered to hear his suggestion.

"I've got a friend at Chira," he said, "who might help us. He's a half-breed."

The tired men took eagerly to this forlorn hope. With all the population of the ranch, including the cook, gathered to wish them Godspeed, the four started off before the sun had more than tinted the east. Kelly had offered them anything on the ranch, from himself, his cook and his cowboys, to the choice of his horses. His guests left as much heartened by his cheerfulness and good will as they were by the actual physical comforts he had given them.

The trail to Chira was lone and hard. They reached the little town dusk and Carlos set out at once in search of his friend, Philip. He found him easily. He was half Mexican, half Pueblo. He and Carlos chatted briskly in hybrid Spanish while the Americans watched the horses wait in the little river. Visitors were so common in Chira that the newcomers attracted little or no attention.

Carlos finally turned from his friend.

"Philip does not know anything about it. He says for us to come to his house while he finds out anything. His wife is a good cook."

(To be continued.)

The late John Campbell, of Woodville, used to father, says at least without feeding any grain at all," remarked Prof. Geo. E. Day, in a recent address. "He used first class clover hay and turnips and his steers went to market in good condition."

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But when it comes to selecting good grains (the very foundation for a good crop), we are often quite careless. This year with the scarcity of labor it is urgent that we use the best seed possible. Farm and Dairy is endeavoring to make this easily possible for every farm home we reach. In addition to the advertisements of our big seed houses, we will publish in the next few weeks.

"The Farmers' Grain Exchange"

Refer to this column each week. It will give the names and addresses of many of our best seed houses in Ontario. If you need choice seed of the best varieties, write these men! Do it early as this year the supply of best seed grain—Oats, corn, clover, potatoes, etc., will be limited.

Farm and Dairy

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This War Flour is excellent in quality and flavour—but it is slightly darker in color than "ROYAL HOUSEHOLD" to which you have been accustomed.

It is just as hard for us to give up milling "ROYAL HOUSEHOLD" as it will be for you to forego your favorite brand; but our "STANDARD" Flour will nevertheless make delicious bread, rolls, biscuits, cake, pies and pastry. If you have any difficulty—just drop us a line; we have a staff of expert chemists and bakers, whose experience is at your service.

Just as soon as the Food Controller will allow us to mill "ROYAL HOUSEHOLD" again, we will tell you of this happy fact.

In the meantime, the new regulations—being in the best interests of Canada and the British Empire—demand the whole hearted support of the Millers and the Public.

Certain stores and dealers have stocks of "ROYAL HOUSEHOLD" still on hand. In order to avoid any confusion or misunderstanding, all "STANDARD" FLOUR will be plainly branded as such.

When all your "ROYAL HOUSEHOLD" is gone, make sure of getting the next best grade by ordering

OGILVIE'S STANDARD

Grocers everywhere have it,—don't forget to stipulate, "OGILVIE'S". It will be your surest guarantee of the highest grade obtainable.

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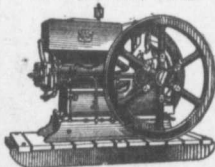
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Farm and Dairy patterns shown in these columns are especially prepared for Our Women Folk. They can be relied upon to be the latest models and include the most modern features of the paper pattern. When sending your order please be careful to state bust or waist measure for adults, for children and the number of the pattern described. Orders are filled within one week to 10 days after receipt. Price of all patterns to Our Women Folk, 10 cents each. Address orders to Pattern Dept., Farm and Dairy, Peterboro, Ont.



FEBRUARY may seem rather early to be thinking of spring suits and coats, but nevertheless they are now putting in quite a prominent appearance, and even if we do not feel like selecting our new spring costume at this early date, we can at least study the styles and come to a decision as to what will best suit our needs.

Tailored suits will in all probability be very popular this spring, although the separate coat will not be banned by any means. There is a decided tendency, we are told, to shorter suit coats, and some have narrow bindings of silk braid or satin. Another decidedly new feature is the long, narrow collar, which fits up the front either in shawl effect or with buckled points. The sleeves are close fitting, and many fasten at the wrist with rows of buttons and button-holes. Stitching and binding of military braid will serve as a trimming on some suits, many of them having a waistline outlined in stitching. We are told that the skirts will be considerably narrower than at present.

2311—Girl's Dress.—Gingham is to be very popular for washdresses this coming season, and already many materials of a girly hue are being shown. Pink seems to be quite a popular shade, and a dress fashioned after this model in pink with white trimmings would undoubtedly be quite chic. Such a dress would also make up nicely in some of the heavier materials for early spring wear. Four sizes: 6, 8, 10 and 12 years.

2303—Lady's Costume.—Plated skirts are still finding a popular place in the fashion world, and for slight people this one, should prove a favorite, with many of our home dressmakers. It is making the vest and collar of contrasting material and the trimming required. This design calls for two patterns, 10 cents for each. The blouse is in size from 24 to 44 inches bust measure, and the skirt from 22 to 23 inches waist measure.

2309—Lady's Dress.—This style is just the reverse from 2303-2309, as it is especially tied to stout figures. As

will be noted by the small back view, it is very plain in the back, thus taking away from the stout appearance. It is plain too, which is another point in its favor. The skirt has an over-skirt or drapery effect to relieve its simplicity. Seven sizes: 24 to 46 inches bust measure.

2106—Girl's Dress.—A dress with a yoke back and front, is sure to wear better than one without, especially for the young girl who is active and hard on her clothes. This is a neat design with box pleats back and front and an attractive belt and collar. The pockets too will be found very convenient. Four sizes: 8, 10, 12 and 14 years.

2293—Lady's Apron.—This is a unique and unusual style of apron. The large patch pocket in front will be found very convenient in performing many duties. The back view also shows the peculiar way in which this apron is cut. Four sizes: Small, 32-34; medium, 34-36; large, 40-42; extra large, 44-46 inches bust measure.

1634—Child's Dress.—The little dress here shown can be made up to look quite "summery" or if desired high neck and long sleeves may be utilized. The panel yoke is the distinctive feature about this dress. Five sizes: 6 mos., 1, 2, 4 and 6 years.

1742—Girl's Jumper Dress.—By having gulpmes made up of several different materials, the dress portion of this outfit could be made use of, and thus a girl would have two or three different costumes at very little expense. The back and front views show just how this dress is fashioned. Five sizes: 4, 6, 8, 10 and 12 years.

2112—Boy's Coat.—We must not forget the little man of the house, as he requires clothes as well as the girl. No matter how many of our little men require new spring overcoats, and how with us show a style that is simple and yet attractive. Five sizes: 4, 6, 8 and 12 years.

2104—A Lounging Robe.—Is this not a charming lounging robe to slip on when one has that tired feeling, and when loose clothing feels so "comfy." A kimono made after this style would indeed be very becoming and attractive. Four sizes: Small, medium, large and extra large.

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A FIRST-CLASS CHEESEMAKER WANTED By The Ideal Cheese & Butter Company, Ltd., Northumbria, Ont. Tender to be in by March 4th. Full Apply stating references and salary to A. G. Cliffe, Sec., Northam, Ont.

The Makers' Corner

Butter and Cheese Makers are invited to send contributions to this department to ask questions on matters relating to dairies, and to suggest subjects for discussion.

The Farm Supply of Ice Should be Stored Now

(Continued from page 3.)

or sawdust are used in connection with a wooden structure, while cork or mineral wool are made use of to insulate concrete or tile buildings.

The Arctic Ice Company of Winnipeg, recommends for farmers an ice house built as follows: Place a double 2 x 10 inch sill on the ground, which has already been levelled up to receive it. Erect 2 x 10 inch studs. Place two ply of tar paper on the outside of the studdings, and cover with shiplap or siding. One ply tar paper is placed on the studding inside and covered with common boards (cedar preferred). Fill the wall with mill shavings as the sheathing is being put on inside, so that it can be rammed in hard up to the rafters on the ends. The plate should be 2 x 6 in. double on the sides, and the studding on the ends should run to the rafter. This will allow a space may be replaced if required. Rafters 2 x 6 in. or 2 x 8 in., according to the size of the ice-house, should be used with a collar tie across about 18 in. to 2 ft. above the plate. Paper and seal the rafters with shiplap on the under side and fill with sawdust or planer shavings, as the roof boards are being put on, and cover with tar paper and shingles.

The door opening should be on the end and extend from the sill to the collar tie. A refrigerator door in sections may be used, or any ordinary double door on the outside, and a groove provided on the inside to receive cross planks. Fill the space between the door and cross planks with sawdust or planer shavings. Cover the ice when stored with marsh hay about 10 in. in depth. A small ventilator should be placed in each gable end as close as possible to the ridge. Paper on the walls should shed to the inside so that the sawdust will slide down without catching and tearing the paper.

A Boost for Butter Grading

W. Waddell, Kerrwood, Ont.

I do not know of any more satisfactory or operator, than to have every churning of butter scored and recorded by a capable, efficient and disinterested man appointed for this purpose. The creamery man may be a good judge of butter, but he is not in nearly as good a position to place his butter as the official scorer, who is a competent man also he would not hold the position. This man is giving his whole time to the work, and for that reason should be better qualified. He has the opportunity of comparing different lots of butter and of comparing each lot with the requirements of the market; he has also the opportunity of noting the keeping quality of the different grades of butter, and from the very nature of his work soon becomes still more efficient.

Then too, it provides a medium for the sale of butter as between buyer and seller. The owner can sell his butter and ship it forward in confidence that he will get a square deal (which he sometimes doubts if the buyer is to be the only judge) while the buyer can safely accept the butter on the score and thus be relieved of considerable suspicion, if the quality should not be up to the mark.

While there may sometimes be a slight difference of opinion as to quality, neither buyer or seller is apt to suffer by selling according to grade.

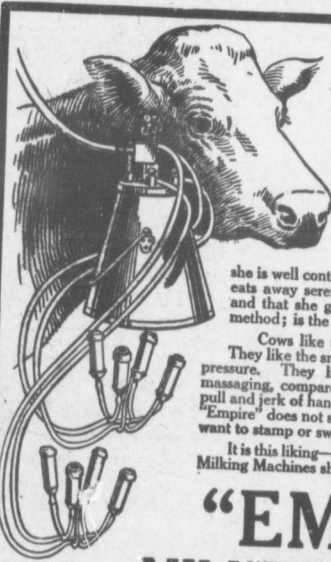
I speak with some degree of assurance on this point. During the past season I sold a lot of 85 boxes of butter, to a certain buyer and sent it forward. On arrival at its destination, this firm had it scored by their experts and wrote me saying that this butter had scored 89 points, or second grade, and stating that the price would have to be reduced one cent a pound, from the price agreed upon. I presume he did not think of any other person having scored this butter. I at once wrote saying that I also had this butter scored by the official appointed for that purpose, and the low-

est score of any churning-in the lot was 93 points, and the best way out of the difficulty would be to send me cheques for the full amount. A cheque in full came by the next mail, with no comment, proving to me that it was a good thing in this case to have had the butter graded.

The system works for good toward the market and the buyer. The buttermaker is always striving to have his butter score as high as possible. He watches carefully every churning, and this has a tendency to induce him to take more pains, to have all utensils clean, in order that no offensive flavor may find its way into the butter. If to-day's report gives any cause, and seeks to remove it; if a

little greasy he may work the next lot a little less, if a little salty, use a little less salt; if the salt is not dissolved the fault may be in the salt, in the working or in moisture content; if in the packing or package, he at once moves it. It is a daily check and keeps the maker constantly on the alert.

The objection may be raised that it takes too much time to put up a box of butter from each churning, for scoring purposes. We thought this before we tried it but, we found it a simple matter when we were used to doing it. From the experience I have had with the grading system I would strongly advise every creamery to adopt it for the coming season.



The Cow is the EMPIRE'S Best Salesman

THE cow can't tell you, in words, why she likes the "Empire" way of milking—why she prefers it even to the most careful hand milking. "Actions speak louder than words." The fact that she is well content to be milked with the "Empire"; that she eats away serenely as the "Empire" brings down the milk; and that she gives more milk than if milked by any other method; is the best proof that she likes the "Empire".

Cows like the way the "Empire" massages the teats. They like the smooth, even motion of the vacuum and air pressure. They like the steady regularity of "Empire" massaging, compared with suction, or the irregularity and the pull and jerk of hand milking. And, cows get to know that the "Empire" does not shout, or thump them on the side when they want to stamp or switch the tail.

It is this liking—this contentment—that makes the "Empire" Milking Machines show such excellent results.

"EMPIRE" MILKING MACHINES

are solving the hired help problem for thousands of farmers—reducing the cost of milk production—taking the drudgery out of dairying on hundreds of farms throughout Canada and United States,—why not on your farm?

An "Empire" Machine milks twenty to thirty cows in an hour; owners of smaller herds will finish their milking in a correspondingly shorter time. A ten or twelve year old boy or girl can operate an "Empire" Milking Machine without trouble.

The "Empire" is always on the job, and always ready—it enables the farmer to be practically independent of the hired man—it saves hours of valuable labor for other work each week—and allows him to handle a larger herd with a smaller investment of time, labor and energy.

Shrewd farmers and dairymen are installing "Empire" Machines, recognizing the need for, and profit in increased production of all farm produce. Shortage of labor and advance in other expenses makes economy and greater efficiency in operating methods necessary. You would install an "Empire" if you knew them as these farmers do.



Test Cup showing walls expanded.



The Empire Cream Separator Co. of Can. Ltd., Montreal, Que.
 Gentlemen:—
 Please send me, without cost or obligation, my part booklet about the Empire Milking Machines. I have..... cows to milk.
 Name.....
 Address..... E

We would like to send you our literature, without cost or obligation on your part. Send in the Coupon.

The Empire Cream Separator Co. of Canada, Limited,
 MONTREAL TORONTO 76

High Class Stock

To be Sold

March 26th, 1918

AT 12 O'CLOCK

On account of our buildings being destroyed by fire we are going to sell our herd of pure bred Ayrshires and grades. The sale will include

70 head of Pure Bred Ayrshires.

20 head of Ayrshires and Holstein Grades.

10 Clydesdale Horses.

This is your opportunity to secure good producing Ayrshires of splendid type from a strictly healthy herd. Also choice grade females.

Write for fuller information and catalogue.

Stoneycroft Stock Farm

St. Anne de Bellevue, Que.

H. M. Morgan, Proprietor.

L. C. McQuat, Manager

LANINGDALE STOCK FARM

HOLSTEINS. Offers for Sale **HOLSTEINS**
Bull fit for service, out of a 28-42-lb. cow, who has 4 R.O.M. daughters, 28.25 lbs. etc., and sired by the son of a 29-42-lb. cow, who has 23 R.O.M. sisters. Price \$125. A few good R.O.M. cows. Write or come—long distance phone.
ROBERT C. LANING VILLA NOVA, ONTARIO

BROOKSIDE HOLSTEINS

We offer for sale 2 grandsons of JOHANNA RIE, who carries 87½% blend of Field's great COLANTHIA JOHANNA LAD. No. 1, 2 years old, a splendid individual, nicely marked; dam 15,700 lbs. milk, 970 lbs. butter in 1 year, semi-official test. Price, for quick sale, \$140.

No. 2, a dandy calf every way. Out of a sister to dam of No. 1, having a record of over 10,000 lbs. milk in 6 mos., in R.O.P. test. Good enough to head almost any herd.

Write for particulars; they won't keep at these prices.

W. L. LAMKIN, R. R. No. 2, GORRIE, ONT.

41 Holsteins AUCTION SALE OF 47 HEAD 6 Clydes

Holsteins and Clydesdales Malton, Ont., March 19th, at 12 o'clock

This is an excellent opportunity for breeders on the lookout for some choice animals to procure them. Included in the sale are grand daughters of Count Hengereid Fayne DeKok and King Pontiac Arlis Canada. Most of the females are in calf to my herd sire, Count Echo Pontiac, a son of the great King Pontiac Arlis Canada, and Daily Echo DeKok. Included also are 2 daughters of Sir Lyons Hengereid Seale. One is Pauline Canary DeKok, who was first at Toronto in 1916 as a 13-lb. 2-year-old. There is also an extra well bred bull, son of King Segis Pontiac Posch and Manor P. H. Alpha, a 19-lb. 2-year-old.

Six Clydesdales are also included in the sale. These are exceptionally fine animals, including 2 imported ones. Recently I refused \$500 for one of these Clydes included in the sale. Don't miss this exceptional sale. Excellent R. R. facilities. Parties meet at Malton and Weston G. T. R. on day of sale, and Ingleton C. P. R. Write for catalogue to



C. SLAVIN, R.R.4 Malton, Ont.

J. K. McEwan, Auctioneer
Weston

The Beacon Light of Dairy Records

By Chas. F. Whitley.

NOTE where men are keeping track of weights and tests and you find their cows are head and shoulders above the average yields of the township or county; 85 or more per cow, where no one else has such a herd shows improvement. Where the farm and the cows have a poor average it is probable the owner is not weighing and sampling; but where the scale is used and the record sheet is studied, there, or thereabouts, you find the milk yield per cow steadily climbing, 4,000 pounds on one year soon made 6,000, the 150 pounds of fat made into 200, and the yield is up to the 8,000 and 9,000 pound cumber, or may be the figures are in the 4,500 and 45,000 pound class (I am quoting actual records), and 300 and 400 pounds of fat per cow, with 1100 or more clear gallons, and above feed cost, and a return of \$2.25 for every dollar spent for feed.

Please note that the figures, so obvious indeed, that they are to overlook it, men are absolutely dependent on figures to substantiate the bare statement that the cows did well, records are the necessary proof that the yield is high. Without the figures one is lost in a mist of uncertainty, but the beacon light of dairy records leads positively to solid and lasting herd improvement.

DUGHES SKYLARK ORMSBY.
This great pure bred Holstein, Duches Skylark Ormsby, who made the world's record for all breeds of 1,808 lbs. of butter, 27,761.7 lbs. of milk in one year, is no more.

Duches Skylark Ormsby was calved October 1st, 1909. She was owned by

R. H. Young, Buffalo Centre, Iowa. She freshened her first 1 month and 3 days old. She was put on official test, making the creditable, though not noteworthy record of 671.50 lbs. of butter, 351.2 lbs. of milk in seven days. Continued for the year, she made the fine record of 753.1 lb. of butter and 19,856.6 lbs. of milk as a junior two-year-old. She then passed into the hands of John H. Irwin, Minneapolis, Minnesota, and for him, at 5 years and 3 days old, she made 13.58 lbs. butter and 683.1 lbs. of milk in seven days. It was then decided to run her for the full year—37 days after freshening she produced 27.76 lbs. of butter and 463.2 lbs. of milk. November 1st she was officially announced that she had established a world's record with the tremendous output of 1-1/2 lbs. of butter and 17,761.7 lbs. of milk in 365 days. This exceeded the previous world's record of 1419 lbs. of butter, held by the Holstein cow, Flanders' Pride Johanna Ruth.

The champion was but eight years old at her death, and her loss is a great one, not only to her owner, but to dairymen and breeders generally.

Her only living son, Sir Ormsby Huntington Chapman, is in active service, and his sons and daughters have every indication of perpetuating the beauty, symmetry, constitution and persistent milking qualities of his great dam.

J. K. MOORE'S SALE.

THIS dispersion sale of J. K. Moore's herd of Holsteins will be held on the home farm near Peterboro, Feb. 20. The weather and roads were unfavorable so a large attendance of local buyers, but there was a fair attendance of outside buyers. Some of the best prices realized were as follows:

Mayne Evangeline DeKok, 40 lbs. Mann, of Peterboro, for \$230. The same buyer secured Mona DeKok Lassie for \$175. Bonnie DeKok Lassie, 1st wt to J. F. Dickes & Son, of Marlboro, for \$200. C. H. Moore, of Peterboro, secured Anna Cornucopia for \$185. The cow of Lindsay, took Tolly Cornucopia for \$110. The foregoing were mainly animals. Two yearlings, Fred and Lila Regis DeKok, both went to Gordon Mann, Peterboro. Fred was sold as high as \$150 and calves for as high as \$51. About 20 head were sold.

GEO. KEITH & SONS

124 KING ST. E. TORONTO

SEND US YOUR POULTRY—BEST PRICES PAID

We are wanting—

	Per lb.	Per lb.
	Alive	Dressed
Crate fed chickens, bled, picked clean to wing tips, 5 lbs. each or over	26c	25 to 22c
Chickens, good farm stock, bled and picked clean to the wing tips	26c	25 to 22c
Old Hens, over 5 lbs. each	20c	27c
Old Hens, over 5 lbs. each	20c	26c
Old Hens, 3 1/2 to 5 lbs. each	20c	25c
Old Roosters, over 5 lbs. each	18c	21c
Choice Young Hen Turkeys, bled and picked clean to wing tips	30c	40c
Choice Young Gobbler Turkeys, bled and picked clean to wing tips	30c	36c
Choice Ducks, heads off, over 5 lbs. each, picked clean	30c	30c
Butter, Good Dairy, 40c per pound.		
New Laid eggs, best price.		

We return the money the day the goods are received up to Bank Hours. Orders demanded for Large fowl ALIVE. Notice price.

WALLER'S - Spadina Avenue - Toronto
Established Over 30 Years.

Here's a Sire for Your Herd

Yes, a sire that you will be proud to own as the head of your herd. He has the make-up to throw strong, square calves and the blood to increase the production of the females and make every bull calf you sell bring more for you.

His fellow we offer is

PIETJE PRIDE
born March 14, 1917.
—Straight and square—light in color—well grown and ready for heavy work. His three nearest dams average 26.75 lbs. butter and 494 lbs. milk in 44 per cent test. His sire Pietje Paul's two nee areet dams average 23.15 lbs. butter in 7 days; with milk test ing 4.7 per cent fat. His dam is a show cow and a full sister to Helens March with 107 lbs. milk in one day.

Don't miss the chance on this bull if you need a choice one.
A. D. FOSTER & SONS - Bloomfield, Ont.

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SALE DATES CLAIMED

WATERLOO COUNTY.

Henry Kneel, Bridport, Ont.—Dispersion Sale of 28 head Registered Holsteins, Date, 27th Feb.

YORK COUNTY.

Maena Sherick Hunt announces Thursday, March 14th as the date of their sale Holsteins at Bethesda, Ontario.

NORFOLK COUNTY.

W. H. Holstein Breeders' Club, Hawsville, Ont. Sale of 29 head, March 17th, 1918.

BRANT COUNTY.

R. C. Chambers & Sons, of Fair View Stock Farm, R. R. 1, Hatchley, Ont., have selected March 16th for their Dispersion Sale of Registered Holstein Cattle.

On Wednesday, April 3rd, the Brant County District Holstein Breeders' Club will hold a Dispersion Sale of pure-bred animals at Brantford, Ontario. Mr. N. P. Sagar, St. George, Ontario, is secretary.

PERTH COUNTY.

The Perth District Holstein Breeders' Club will hold their first sale on March 12, 1918.

James M. Boyd, R. R. No. 2, Atwood, Ont., pure-bred and high-grade Holsteins, at Willow Row Stock Farm, March 13th, 1918.

OXFORD COUNTY.

J. D. Allen will hold a sale of 15 head of pure bred Holsteins and 18 head high quality grades at Tillsonburg, Tuesday, February 28.

There will be a sale of the Holstein herd of Edwin C. Chambers & Son, of Fairview Stock Farm, R.R. No. 1, Hatchley, Ont., on Tuesday, March 26th, 1918.

Wednesday, March 28th, is the date of the complete dispersion sale of the Quaker's herd of fifty pure-bred Holsteins, at Woodstock, Ont. G. F. Mahon is the proprietor.

H. C. Hamner, of Newmarket, Ont., will hold a complete dispersion sale of his entire herd of pure-bred and grade Holsteins, on Friday, March 15th, 1918.

Noah S. Bender, Tavistock, Ont. Holstein dispersion sale, March 19th.

The Oxford District Holstein Breeders' Club will hold a complimentary sale of registered animals at Woodstock, Ont., on March 20th, 1918. W. E. Thomson, Woodstock, is Secretary.

Southern Counties. Ayrshire Breeders' Club, Woodstock, Ontario Dispersion Sale, pure-bred Ayrshires, March 27th, 1918.

T. G. Gregg, of Ingersoll, announces April 10 as the date of their Holstein sale.

ELGIN COUNTY.

J. W. Van Patter & Son, Aylmer, Ont., will hold a dissolution of partnership sale of their Holstein herd on March 12.

PEEL COUNTY.

Dispersion sale of C. Slavin at Milton, Ont., of 41 head Holsteins and 6 Clydes on March 18th, 1918.

THE LAIDLAW SALE.

OWING to the shortage of good farm help we are forced to dispose of our herd of cows, as we cannot possibly run them and do our spring work on the farm. This herd is the result of years of breeding and weeding. We have sent to the butcher this winter some that would probably have brought considerably more money in the fall but we have put them where we felt they belonged. Now a word for the sires that have headed our herd for the past ten years. We will first take Lord Roberts DeKalb. He left us a number of excellent daughters. Five of them at an average age of 2 1/2 months of age weighed above an average, 13,671 lbs. milk and 641 lbs. butter. One of these is National Queen DeKalb public test. She gave in R. of P. at 2 years 3 months of age 15,742 lbs. of milk and 632.7 lbs. butter in 10 1/2 months.

The next sire was Dutchland Colantha Sir Aboobark, who is one of the greatest from that great bull, Colantha Johanna. He is sire of 12 of our best cows. His butter in 7 days and 18 daughters above 600 lbs. milk in 7 days. He has more than double as many daughters above 600 lbs. as any other sire alive or dead.

Dutchland Colantha sire Aboobark is sire of 31 R. of M. daughters and 18 producing sons. Twenty daughters average 21.35 lbs. butter in 7 days and nearly all with second and first place standing in one or two classes. Some of the cows we are selling are either daughters or grand-daughters of this great sire. He has several bulls that have won championships at all the best fairs in the province.

Following him was Royalton Centary Alban, whose dam made, under very favorable circumstances, 25.35 lbs. butter in 7 days. She gave more milk after being tested, as high as 111 lbs. milk per day. She and her sisters standing in one or two classes have all given over 100 lbs. milk per day. One made 34.89 lbs. butter in 7 days another 31.75 and another 30.22. This last one is Royalton DeKalb Violet. She gave in the year's test 23,494 lbs. milk and over 1,300 lbs. butter.

Since this bull's daughters have come to milk we have had time to do any testing. We are selling our entire herd four that we are keeping to provide milk for our calves. Three of the are bluish-colored cows. They are selling as all sound and none over 6 years of age.

We are offering four good young bulls, all but one over a year old. These are all good enough for real pure-bred heifers. Three are sired by our herd sire, Maple Crest DeKalb Champion, who is full brother to Banantine Belle DeKalb. She gave in the year's work 404 lbs. milk, 122.23 lbs. butter. This held the world's record two years. The other is sired by our other herd leader, Flanders King May Fayre. His dam made 21.96 lbs. butter in 7 days four years four months of age. His full sister, Flanders Washburne, gave, made 26.50 in 7 days and 140.55 in 30 days at three years of age. These were second largest in the world when made. She was never beaten by a bull or sister, Flanders Holstein. Pure, with 21.13 in 7 days, 162.33 in 30 days, and 128.68 lbs. butter in 45 days. These were all world's records when made.

We expect having to dispose of our herd but we have tried in vain to secure help. Messrs. J. M. Von Patter & Sons are selling on the 13th of March and we are selling on the 13th of March. This should be an excellent opportunity to secure one of the best stock ever offered at public auction as the farms are only two miles apart. Ladies' Farms, Aylmer, Ont.

Dispersion Sale

OF 50 HEAD

OF

Pure Bred and High Grade

HOLSTEINS

On March 5, 1918, at 12.30 p.m. at WILLOW ROW STOCK FARM

Lots 1 and 2, Con. 12, Tp. of Alma, 2 miles from Henfry on G. T. R.

These are some of the kind I am offering. Females from such sires as SIR HENGERVELD DEKOL AAGGIE, whose sire was full brother to The World's Champion bull. Heifers and calves from SIR MERCEDES BARCASTE, whose sire is the only bull in the breed that carries 100% same blood as the World's Champion Holstein cow, BANOSTINE BELLE DEKOL, 30.87 lbs. butter in 7 days, 27,404 lbs. milk in 1 year. FOUR YOUNG BULLS from this sire, also two heifers with 10,900 and 11,000 lb. milk records, one year, and cows of great milking capacity.

Conveyances will be at Henfry, G.T.R. Station, and also at Moncton Station, C.P.R., morning of sale.

Jas. M. Boyd, R.R.No.3 Atwood, Ont.

GET A "KING," 3 SOLD—ONLY 2 LEFT

Here is a good one, ready for service. Prince Echo Spofford, calved Feb. 16, 1917. Color—white, large, straight and square. Sire—King Egis Alcarus Darkens (G.R.O.M. daughter), who was a son of May Echo and a brother of LUU Keyes. Extended pedigree furnished. Phone or write

CLARENCE MALLORY BLOOMFIELD, ONTARIO

CHOICE BULLS READY FOR SERVICE

No. 1.—By a son of MAY BOHO SYLVIA. His two nearest dams (both Canadian champions), average 35.62 lbs. butter in seven days. Price \$1,000.
No. 2.—By a son of MAY BOHO SYLVIA. His two nearest dams (one a four-year-old), average 34.17 lbs. butter in seven days. Price \$600. Some extra choice young bull calves from \$200 to \$1,000. We have sold thirty-four bulls this winter.

HIGHLAND LAKE FARMS

R. W. E. Burnaby Farms at Step 25 Yonge Street Radial **Jefferson, Ont.**

DISPERSION of HOLSTEINS

35 Head
at
Tavistock,
Ont.



35 Head
on
March 19th
1 p.m.

Noted R. of P. Herd. Only one over 4 years old.

Included in the sale are 11 daughters of KING BEGIS COLANTHA, junior sire of Tavistock Syndicate. His sire's seven nearest dams average nearly 30 lbs. and have nine 30 lb. daughters. His dam is a 20.19 lb. 3 yr. old daughter of KING WALKER, who has 25 A.R.O. daughters from 30 lb. dams. Included also are 7 daughters of the Senior sire, KING LYONS HENGERVELD, in whose pedigree are three 30 lb. cows, each with 30 lb. daughters. In whose pedigree of securing a fine bunch of young stock, which will be ready to bring in money almost immediately. Watch for further notice. For catalogues write—

Noah S. Bender **Tavistock, Ont.**
M. R. ROTH, Auctioneer

50 HEAD The First Annual Consignment Sale **50 HEAD**
of the
London District Holstein Breeders Club

Will be held in LONDON, ONT., at the Brunswick Hotel Stables, Cor. York and Talbot Streets

THURSDAY, MARCH 14, 1918, at 1 p.m.

When some of the best males and females of the most popular strains will be offered for sale.

Sons and daughters of such sires as PINDURNE KING MAY PATNE, whose dam made nearly 34 lbs. butter in 7 days and 4 records of age; COLANTHA PATNE HUPPNER BARON, whose dam made over 32 lbs. butter in 7 days; JUDGE HENGERVELD DEKOL, sire of the 50,000 bull. These will all be young cows and heifers—no three-centers or stock quarters,—just the kind that will make you money—the modernity of them milk-ug or due to freshen soon.

IF YOU WANT SOME CHOICES IN HOLSTEINS' do not fail to be on hand at 1 p.m. on March 14th.

Catalogues will be ready March 1st. Write for one, to the Secretary.

SALE TO BE UNDER COVER.

T. Merrit Moore, Auctioneer
Fred W. Bodkin, R.R. No. 2, Wilton Grove, Ont.

The first annual meeting and banquet held by Durham County Holstein in the North American Hotel, Orono, Ont., February 1st, 1918, and proved a very successful evening and noteworthy event. The attendance was good, and led to exercises of the highest order, and to the advancement of the Holstein-Friesian breed in this locality. The membership of the club was increased to about two hundred and fifty members. Two able speakers, Mr. R. W. R. Barnaby, of Port Perry, Ont., and Mr. R. M. Hobbie, of Port Perry, Ont., were present and delivered excellent addresses. The noteworthy fact of this meeting was, that although the Holstein is the most recently introduced breed in this district, the Holstein breeders were the first to organize, and it is gratifying to them to know that their first annual meeting resulted in such a splendid success.

The organization of this club was in December last when the officers were appointed, and who were re-elected as follows:—Pres. R. C. Cook, Newcastle; Vice-Pres. A. J. Tamblay, Orono; Sec.-Treas. Arthur Gibson, Newmarket; Directors: P. W. Rogers, Orono; W. J. Boaz, Bowmanville; N. I. Hines, Bowmanville; L. A. Washington, Hampton; Honorary Director, D. A. Williams, Port Hope; Auditor, A. T. Stratton, Hampton.

The banquet was held at 6 p.m., when 30 members and guests of the club sat down and did full justice to the demands of inner man with a delicious repast. Excellent music was furnished for the occasion by the Orono Orchestra. A speech was delivered by the speaker of the above mentioned, and a report on the Orono clergy, and representatives of Clarke Township Council and Clarke Agricultural Society.

THE ROGERS' OFFERING.

REGARDING the offering of Mr. L. Rogers, of Manvers, who has been advertising with us lately we would say that the Holstein of excellent breeding and type. The former herd sire tier, sired by Lakewick Calanthy (Lakewick), who stood at the head of Lakewick herd for years, and has 23 "cotted" daughters and 6 proved sires, and whose bull and 417 1/2 lbs. milk, sister to Lakewick Rattler, a champion in four divisions. This sire is a brother to the first buller in Canada to make 100 lbs. in the advertisement that two of the young stock offered are sired by this well bred bull.

The present herd sire, from which are come the other offerings, is Emery Hengwood Rytter, whose sire is brother to Queen Jane DeKok, 111.70 lbs. butter in 30 days, 17.6 lbs. in seven days. She also holds the Canadian record in the present sire is Emery Calanthy Posh, 12.11 lbs. butter, 463.1 lbs. milk at three years, and after having two pair of twins. Her dam, Emily Dist. Posh, has a record of 501 lbs. milk and 26.15 lbs. butter in seven days. This is a good blood. The herd appears to be in first-class condition and should be an opportunity here for prospective buyers to get a strain of Holsteins which will breed excellent results.

NOTES FROM BRANDON EXPERIMENTAL FARM.

The following are notes clipped from a private letter from the Superintendent of the Dominion Experimental Farm, Brandon, to one of the members of our staff:—

"Our live stock operations have been badly handicapped this year on account of our building situation. The buildings which were burned some time ago are not yet in shape for use, but as the ready money is occupying the horse barn, so finished these buildings will put us in a good position, as they are commodious and up-to-date. In the meantime our cattle have no chance to do their best, but we hope soon to be able to do better.

"We got a bull last year which should help us a lot. He is imported from Lord Holland's Tring Park Herd, generally considered to be the best milking Shorthorn herd in England, and traces on both sides to the best of the breed. He is probably the most outstanding Shorthorn cow the herd now. With the cows we have in mind, we should produce the best good results in this line of breeding. We hope to put in some Holsteins here, but probably not until after the war.

"We have made some good Oldenbude additions lately. One good Oldenbude cow is the Dominion Government from the place on our farm in British Columbia, have been a yearling bull from Peasey Pride, generally considered to be the best mare they had, and the other a two-year-old almost equally good.

"We are also getting an exceptionally good lot of pigs here—possibly one of the West; also some very good Yorks. Our breeding thirty pure-bred sows this winter and are thus endeavoring to do our bit in the line of food production.

The Quaker's Stock Farm

ENTIRE DISPERSION SALE OF
50—Pure-Bred Holstein-Friesian Cattle—50

FEMALES

40 OR MORE, INCLUDING

- Shadelawn Cynthia Canary, 4 yrs., milk, 604.7 lbs., butter 7 days 26.37 lbs.
 - Maud Beata Sogta, butter 23.80 lbs.
 - Helia A. Posh, butter 19.46 lbs.
 - Roxie Payne, 3 yrs., butter 19.87 lbs.
 - Merona Schulling 5th, 3 yrs butter 19.71 lbs.
 - Colantha Mercedes Tessa, 3 yrs., butter 12.77 lbs.
 - The Quakerom, 1 year 11 months, butter 14.60 lbs.
- Many other fine foundation cows, tested and untested, and nearly all in shape for testing this spring.

ONE OF
OXFORD S
Finest Herds
A Sale
Worth While

BULLS

- The young herd sire and show bull, 2 yrs. old—**COLANTHUS POSCH** ABBERBEEK more white than black.
- Dam, milk, 7 days 690.5 lbs.
 - Butter 7 days 29.97 lbs.
 - Sire's Dam, milk 719 lbs.
 - Butter 12.95 lbs.
 - Highest day's milk 308.6 lbs.
 - Average (dam and sire's dam) milk, 7 days 656.04 lbs.
 - Butter 7 days 30.15 lbs.

Blue Ribbon Bull at Guelph, 1916. Prize-winner at Toronto and London, 1917.

Several young bulls, ready for service, all from R.O.M. dams. One prize-winner at Toronto, 1917.

HEIFERS
Some splendid before freshening to the herd bull this fall, and a number of unbred yearlings.

Splendid Foundation Stock

DR. RUDD'S SALE STABLE, WOODSTOCK
Wednesday, March 6th, 1918, at 1 o'clock

Convenient Train Service - Good Hotel Accommodation
Terms: Cash or 6 months credit with interest

G. F. MAHON, PROPRIETOR, WOODSTOCK, ONTARIO
WRITE FOR CATALOGUE
Moore & Dean, Auctioneers

HOLSTEINS

We have the only two sons in Canada, of the 46-lb. bull Ormsby Jane sale, also a 39-lb. calf, whose dam and two great-grand-dams average 23.4 lbs. butter in 7 days. Also 11 bull calves of lesser note, and females of

R. M. HOLTVY,

R. R. No. 4,

PORT PERRY, ONT.

FOR MILK, BUTTER, CHEESE, VEAL

Holstein cows stand supreme. If you try just one animal you will very soon want more. Write the **HOLSTEIN FRIESIEN ASSOCIATION**, W. A. CLEMONS, Sec., St. George, Ontario

COURVILLE HOLSTEINS

Owing to **LABOUR SHORTAGE** We must sell our **ENTIRE MILKING HERD**

30 MATURE FEMALES 30

None Over 6 Years and Absolutely Sound

AT THE **FARM** ALL MILKING OR HEAVY IN CALF
Also Four Young Bulls

AYLMER, ONT., March 13, 1918, at 1 P.M.

This sale is on the day following Van Patter's Sale at Aylmer, and is an excellent opportunity for breeders to attend both sales.

These cows are the result of years of breeding and weeding, and include our best. Those with calf are bred to our two herd sires **FINDERNE KING MAY FAYNE**, and **MAPLECREST DeKOL CHAMPION**. The young bulls are sired by these, and are from our best cows.

Rigs will leave the Brown House, Aylmer, on the day of sale.

TERMS: Cash or 6 months' credit at 7 per cent. on good security. Write for Catalogues.

T. MERRITT MOORE, Auctioneer
LIDLAW BROS. Aylmer, Ont.
Elgin County

GOOD SALES FROM HOLTBV HERD.

In a letter from Mr. H. M. Holtby, one of our big breeders of Ontario County, in reference to sales, he writes as follows:

"During the month of January, we have sold to Frank J. Dobson, of Oxford, a bull of good individuality and with his dam's record, should make him a valuable sire. To E. H. M. Gowen, of Westboro, Ontario, the good bull Duplicita, a son of King Segis Pontiac Duplicate, to Jos. Peel, of Port Perry, a calf, Sum of \$900. To date this is the best bull we have ever sold. His dam is the cow without a fault, white head, a Sylvania Pontiac Cornucopia, a grandson of the world's record cow, Mrs. Grandson Lasa, 41 and May Echo Sylvia, K. P. Pontiac record of his dam and two granddams average 58 lb. butter in 7 days. He is ever raised, and with his breeding should make his owner a very valuable sire. He is raised twice to King of the Pontiacs in the best and his best daughter, while his dam's sire is closely related to King of the Pontiacs. His dam is bred to A. P. Donaldson, of Leno, Ontario, a son of that great sire King of the Pontiacs, while his dam is bred to R.O.M. and R.O.C. while his dam is bred to B. S. McLean, Hillhurst, Ontario, a cow who has won the Ontario March. There are no good openings in the sale in this herd, and should make a fine production. One is a daughter of King Segis Pontiac Duplicate, one is a daughter of King Segis Pontiac Duplicate, other is a sister to the 36-lb. cow, while the Keweenaw is a show cow, and the better of the two.

This is a nice bunch of sales to start the new year with, and shows that the Holstein cow is still popular in popularity in spite of the scarcity of labor.

HOLSTEIN SALE AT COBOURG.

THESE breeders of Holstein cattle planned to attend Mr. Bertram Hoskins' sale in Cobourg on March 5, will be interested in the following record included senior sire, four years old, sire of King Echo Hermes, who sold at auction for \$700, and who has a 31-lb. record, and a 23-lb. daughter. A total of 23 in record of eight months' division. He also has a cow and 22.75 lbs. two-year-old record, and seven other with records almost equally good. His sire is King Segis Pontiac, K. P. Pontiac record of his dam and two granddaughters with record running from 15 lbs. to 22 lbs. in seven days. The dam of King Segis Pontiac is Lela Segis Walker, 22 lbs. butter in seven days. She is also by King Segis Walker and is the famous bull King Segis, 35 lbs. 18 proven sons, grand sire of King Segis, seven other 30 lbs., besides Johanna, the only 60-lb. cow, also the world's record Junior four-year-old, 40-lb. bull and a 35-lb. bull. The sale will also include several other young bulls of excellent breeding.

One of the cows are: A sister to a 17.00-lb. cow, a cow whose dam 1 sister was a 20-lb. cow, a 15.000 yearling record grand champion two years at Toronto, and a young champion 2nd, former Canadian champion at the Albion Hotel stables. Cobourgers who desire excellent opportunities for buyers to attend the sale. The train service will enable them to come and go at their own convenience.

A \$35.000 BULL.

ANOTHER Holstein youngster has sold for a small fortune. The 2-year-old 31-lb. bull under the handle King of the Pontiac, Syracuse, New York, for \$35,000, sold for a bull at auction, the record price ever paid for a bull of this age. The record price was paid for a half brother of this bull, King Ormsby, Jr., of Apple, who sets the sale last June. John T. Shanahan, of Buffalo, bought the young sire after spirited bidding, while George E. Pierce, another Buffalo Holstein breeder, was the competitor. Mr. Shanahan made the purchase for his New York. Oliver Cabana, Jr., of Ontario, New York, was the owner of the bull.

18 Head HOLSTEINS Will be Sold by Auction at Albion Hotel Stables, Cobourg, March 7 AT 1 P.M.

AMONG many other valuable animals, our Senior Sire, MAY ECHO PONTIAC, 4 yrs. old; SIRE PONTIAC HERMES, who sold at auction for \$700, and who has 23 daughters in record, running up to 29 lbs. butter in 7 days. In R. of M. with records the 3 yr. old daughters and one with a 4 yr. old record of 22.75 lbs. milk in 3 months; also several others; his dam LAWCREST MAY ECHO, 25.69 lbs. butter in 7 days, a three-quarter sister to MAY ECHO SYLVIA; her dam, MAY ECHO, holds world's record for 11 year old, sire, SIRE HENGEVELD WALKER SEGIS, whose 7 nearest dams sired by KING SEGIS WALKER, in 7 days, average fat 4.47%; running from 15 lbs. at 1 yr. old to 29 lbs. at 4 yrs. old. His dam is by KING WALKER, who has a large number of daughters testing 25 to 32 lbs. butter. Among the cows are some with records of 70 lbs. milk whose dam is a full sister to a 25 lb. butter cow, and a cow whose dam is a full sister to a 17,000 lb. yearling cow, and a cow whose dam is a full sister to a 17,000 lb. yearling cow, and a cow whose dam is a full sister to a 17,000 lb. yearling cow, and a cow whose dam is a full sister to a 17,000 lb. yearling cow.



May Echo Pontiac, whose sire is Pontiac Hermes and dam Lawcrest May Echo, the 25.69 lbs. daughter of Inks Sylvia Beets Posch, the sire of the great May Echo Sylvia.



Sale will be held at Albion Hotel, Cobourg offers a great advantage to buyers at noon of the same day.

NORMAN MONTGOMERY, Auctioneer.

For catalogues write **BERTRAM HOSKINS, R.R. No. 5, Cobourg, Ont.**

"Everybody Wanted That Bull"

WRITING us this week to stop their advertisement for the "Arbogast Bros. say: We have sold the 31-lb. bull and Dairy. It just seems every body wanted that bull, as we have a dozen enquiries to answer right now. Mr. Robt. C. Lansing, of Wills Nova, has purchased 31-lb. bull we have ever sold.

"Arbogast Bros." for the above advertiser we can do for you. If you have stock for sale write us NOW.

LIVE STOCK DEPARTMENT
Farm and Dairy, Peterboro', Ont.

OFFERING No. 2

Premier Pietertje Posch 33892

Born Jan. 24, 1918. Slightly more white than black, a very straight, showy calf with lots of size and guaranteed in every way to suit the purchaser. DO NOT MISS THIS RARE CHANCE OF SOMETHING CHOICE, whose dam DAISY POSCH has a 7-day record of 683 lbs. milk with 29.01 and 21.10 lb. of butter. Her dam, IDEAL, has a record of 653.1 lbs. milk of Netherland Schilling, with 29.3 lbs. butter from 241.9 lbs. milk. DAM—RIDEAU PIETERTJE DEKOL, with a 7-day record of 586 lbs. the PION MATTHEU CLASS, and of Jeannine Johanna Wayne with 22.23 lbs. milk in R.O.F.

GENERATIONS
His 7-day and yearly records that are a credit to a bull, back this calf giving an average of 93.3 lbs. milk per day. His 6 near dams average 24.63 lbs. of butter.

WRITE—PHONE—WIRE—AT ONCE. ANOTHER BARGAIN.
Best Phone, Brantford, No. 1102.
W. G. BAILEY, Oak Park Stock Farm R. R. No. 4 PARIS, ONT.

Great Dispersion Sale 30 HEAD HOLSTEINS

March 5, 1918 at 1 P.M. Fairview Stock Farm
Here are a few of the kind I am offering. Millegid Lady Posch, a 25-lb. cow, and her daughter, Fairview Favorit Lady 22-lb. 4-year-old; also a 25-lb. four-year-old, a daughter of Bessie Netherland DeKok, ex-champion of Canada as Junior 3-year-old, a sister to Queen Butter Baroness, 33.17, a 30-lb. mature cow, a daughter of a 26-lb. 7-day cow, with a 22,000 R.O.F., 15.16-lb. 4-year-old; 4 daughters of Butter Boy Johanna Kordyke, whose dam has a 30-lb. record and is dam of a 50-lb. cow; 3 granddaughters of Pontiac Kordyke from tested



Another of our choice offerings with a record of 84.5 lbs. milk, 25.17 lbs. butter, average test 3.67 per cent. Best day's milk 80.0 lbs.

30 Head

One of our choice offerings. She has a record fat 50.2 lbs. milk and 22.16 lbs. butter, average test 3.28 per cent., 14 days 41.41 butter. Best day's milk 75 lbs.

dams; 4 daughters of our 25-lb. cow; 6 daughters of Lord De Bois, who has a 27-lb. dam; 10 cows from 30-lb. bull. Conveyances will be at Harley Station, also at Scotland, on morning of sale. Buses run from Oakland to Scotland, also from Scotland to Hotel. Sale will be held in comfortably seated building. R. R. Connection: G.T.R., Harley; T.H.S., Scotland; L.E. & M., Oakland.
E. C. CHAMBERS & SON - HATCHLEY, ONT.

Spring Wheat Seed for Ontario

THE world demand for wheat in 1918 justifies the greatest possible effort towards increased production. The small acreages of Fall Wheat put in last fall will mean increased acreage in Ontario available for Spring Wheat. The Ontario Government is co-operating with the farmers in order to provide seed. It has purchased 50,000 bushels of No. 1 Marquis Spring Wheat Seed through the Seed Branch of the Federal Department of Agriculture. More will be purchased if necessary to fill needs.

Distribution

Seed is sold only in 2-bushel bags. Carloads will be placed at certain points in the Province where less than carload orders can be filled, the purchaser paying local freight from such distributing point to his own station. Where Farmers' Clubs or other organizations buy in carload lots, the price at their local stations will be the same as at distributing points.

Where to Buy

Purchases may be made either in the warehouse at the distributing points, or orders may be placed with the nearest District Representative of the Provincial Department of Agriculture, or they may be sent direct by mail to the Markets Branch, Department of Agriculture, Parliament Buildings, Toronto.

Payment in Cash

Price is \$2.74 per bushel at distributing points. In all cases, without exception, cash must accompany

order. Send remittance by cheque, postal note, post office or express money order made payable to Ontario Department of Agriculture, Markets Branch.

Order Early

In the event of the requirements of the Province being underestimated, there may not be enough seed to go around. It is advisable in order to insure having their orders filled that purchasers should place orders as soon as possible. All orders are subject to confirmation and will be filled in the order received. As seed is delivered in 2-bushel bags, order should be for even numbers of bushels, and no order for less than 2 bushels can be accepted.

Names of Distributors at local points will be announced later. Distributing points at present decided are: Hamilton, Woodstock, St. Marys, London, Chatham, Toronto, Brampton, Newmarket, Barrie, Orillia, Brantford, Simcoe, Welland, Orangeville, Alliston, Listowel, Durham, Palgrave, Stouffville, Lindsay, Oshawa, Peterboro', Port Perry, Port Hope, Kemptville.

Ontario Department of Agriculture MARKETS BRANCH

PARLIAMENT BUILDINGS, TORONTO

SIR WM. H. HEARST,
Minister of Agriculture

DR. G. C. CREELMAN,
Commissioner of Agriculture



ONTARIO