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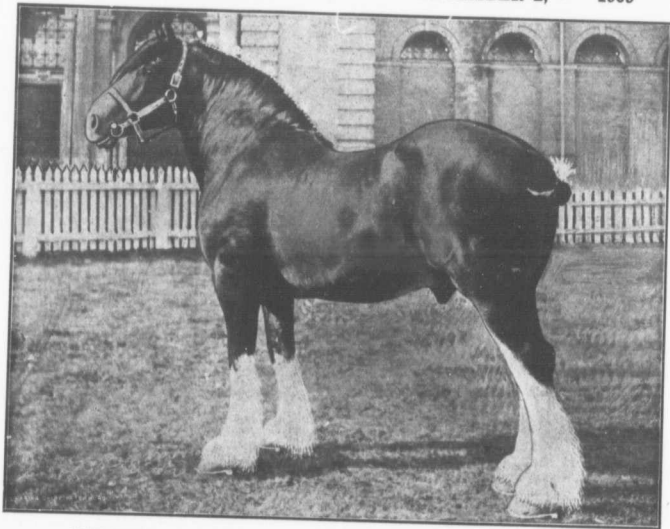
# FARM AND DAIRY

## RURAL HOME

CHAS. J. H. (A)  
C.E.F.

PETERBORO, ONT.

DECEMBER 2, 1909



### THE TYPE OF DRAFTER THAT WE NEED MORE OF IN CANADA

There is a great need of more heavy horses being bred in Canada to supply the demand that we now have. Conditions are such that even ordinary good workers are snatched up at prices never dreamed of in years gone by. Almost every farmer could profitably handle three or four heavy breeding mares, for whose progeny there is the brightest future, especially if they be sired by such individuals as Royal Choice, illustrated above. This stallion is owned by Graham Bros., Claremont, Ont., and is showing this week in Chicago, where he captured first in 1907.

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CANADIAN COUNTRY LIFE**

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**BREEDERS  
NUMBER**  
PRICE 10 CENTS

## Shaking To Pieces

It is the vibration that wears a cream separator out and destroys its usefulness. Many separators which look, and should be as good as new, are almost worthless because the bowl—the one part of the machine above all other parts that should be in perfect running order—cannot do its work properly, due to the vibration which is set up by its being out of proper balance.

The bowl is a very delicate piece of mechanism, and must run absolutely true if it is to do good work. The trouble with ordinary separators is that it is almost impossible to ensure the bowl running evenly and truly under all conditions. And when the bowl gets out of true balance, the trouble begins.

There is one machine which does not lose money for its users by the bowl getting out of balance. The "Simplex" Link Blade Cream Separator is fitted with a Self-Balancing Bowl, which will always run true, even if out of mechanical balance, or if the frame of the machine itself is not exactly level. It is fitted with self-centering bearings, which allow the bowl to run freely on its own centre at all times. The bowl cannot get out of balance. This means that the machine will always do good work, and will continue to do good work, after other machines have had to be replaced by new ones. That is money-saving.

Let us tell you more about the machine with the self-balancing bowl.

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BEATTY BROS., FERGUS ONT.

## Dairying in British Columbia

Of the various phases of agriculture in B.C., there is none more prominent to-day than the dairy industry. During the year now drawing to a close, the B.C. Dairymen's Association has been carrying on a course of lectures throughout the province, with the object of more clearly showing the necessity of improving dairy conditions, both as to sanitation and as to the health of the herd. The results of these lectures and the missionary work performed through the medium of the same, have been very satisfactory, and already have been productive of good results.

The meetings were held under the auspices of the Provincial Government, the Department of Agriculture, and the services of some of the best and well-known men of the Dominion were procured to lecture as the Department of Agriculture realized that the success of the work depended to a large degree on the capability of the speakers.

### FAVORABLE RESULTS OF CAMPAIGN

The afternoon meetings were given up to lectures on bovine diseases, and the enlightening and most mortem examination of reactors to the tuberculin test. The evening meetings were taken charge of by one or more speakers, and instruction on such subjects as "Dairy Bacteriology" and "Proper Handling of Dairy Products" was given at each meeting. The result of this educational campaign proved highly satisfactory, and beyond all expectation. The speakers have found the dairymen making more window space in the stable, improving the floors and gutters, and putting up detached separator rooms to contain the separator, dairy utensils, and water or ice tanks in which to keep the milk or cream until delivery. As a result of the post mortem demonstrations, the majority of the larger dairy herds in the province have been tuberculin tested, and it is gratifying to note that the percentage of reactors is now below eight per cent., and as more herds are tested, the percentage of affected cattle will decrease as the majority of herds that were first tested were those supplying milk to the larger cities, and in which suspects were found.

**DAIRYMEN AWAKE TO THEIR INTERESTS**  
That the dairymen of the province are awake to their own interests is shown by the manner in which they are taking hold of this movement. They realize that a healthy herd and sanitary premises mean profit and the production of a high-class article, which results in securing increased prices on the market.

Indirectly, through the work of the Dairymen's Association, a milk commission was appointed in Vancouver, with a view to having certified milk produced and delivered around the city. At first it was thought to be a producer, but as the dairymen realized that milk which conformed with the requirements of the commission brought from two and a half to five cents more a quart than milk which they had been delivering previously, they began to come into prominence, and to-day there are several dairies supplying milk to Vancouver as free from deleterious bacteria, and of as good quality as can be found in cities where certified milk has been produced a much greater length of time.—R. W. H.

## Pushing the Forestry Question

Warden A. A. Powers, Durham Co. The agricultural committee of the Counties Council, Northumberland and Durham met in Cobourg recently and decided to push the question of the reforestation of the waste areas in these counties actively throughout the fall and along the lines that have been suggested by Farm and Dairy. The Ontario government has undertaken to take a census of the acreage

suitable for this purpose and Prof. Zavits has agreed to give a number of lectures illustrated by time-light views at different points in the local municipalities.

Prof. Fernow, Mr. C. C. James, Deputy Minister of Agriculture and other speakers will address a mass meeting in the Opera House, Cobourg, on Thursday, Dec. 9, at 2:30 p.m. on this question. The Council will be in session at this time and will probably arrive at a decision in regard to the manner in which the question will be laid before the provincial government. We appreciate the great help we have received on this question through the columns of Farm and Dairy.

## What is a Cord of Wood?

As everyone knows a cord of wood is a pile eight feet long, four feet wide and four feet high, or 128 cubic feet, no matter whether the sticks are long or short, straight or crooked, round or split, unless there is an understanding to the contrary. But contrary to the common belief there are many times when a cord of wood is not a cord, and, again, when it is more.

Woodlot owners and farmers owning small forest tracts who intend to sell cordwood are no less interested than contractors who buy and sell large quantities. It is surprising how much difference it makes whether the wood is cut long or short, chopped, or sawed, whether the sticks are round or split, large or small, and whether the measurements are made while the wood is green or after it is seasoned.

A lumberman may have a tract of pulpwood which he contracts to sell at \$5, the wood to be cut and stacked. He cuts it in 12-foot lengths, makes 200 cords and receives \$1,000 for it. The same amount of wood, if cut in 4-foot lengths, would make 800 cords, for which he would have received \$880 and there would have been considerable additional labor in the cutting. While it was thus to the lumberman's advantage to cut in the larger size, the buyer paid \$120 more for the same amount of wood than if it had been cut in the smaller lengths.

It is always best to saw the wood, for the loss is scarcely half of one per cent. If chopped, the chips are lost; in a cord of four-foot wood, with sticks six inches in diameter, this loss amounts to from six to eight per cent.; and of course the shorter the sticks are cut the greater is the loss.

The difference due to space between the sticks depends very much on their shape and size. Straight, smooth sticks lie close together, and a cord therefore contains more wood and less air. Whatever the kind of wood used, cords of long sticks are pretty sure to contain more empty space than cords made of short pieces. A cord (128 feet) of 4-foot hardwood usually contains about 83 cubic feet of solid wood, 3-foot wood averages 83 1/2 cubic feet, 2-foot wood, 85 feet, 1-foot wood, 85 feet. C.c.'s of conifers and softwoods usually contain from 90 to 96 cubic feet. Thus the purchaser buys on an average about two-thirds of a cord of real wood and one-third of space.

According to the reports of timber-testing engineers in the United States Forest Service, wood may lose half or more its green weight in seasoning. Cedar for lead pencils is bought by weight in this country, because the pieces are so small and of such irregular size that they cannot conveniently be stacked and measured as cordwood. The bulk of nearly all wood decreases as seasoning goes on. A hundred cords of green wood will make from 89 to 92 cords when dry, therefore, when buying wood, find out that you get what you pay for.—Washington, D. C. B. F.

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# FARM AND DAIRY & RURAL HOME

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Vol. XXVIII.

FOR WEEK ENDING DECEMBER 2, 1909.

No. 48.

## WHAT OUR LIVE STOCK INTERESTS NEED

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

The farmer obtains a price for his live stock products which in the end barely yields him a comfortable living. He suffers in competition with his stronger rivals. A remedy suggested.

THERE is one phase of our Live Stock interests which may be studied more particularly from the point of view of production on the farm. It concerns itself chiefly with individual methods of feeding, of breeding and of management. Much has been written and

the sellers and retailers of live stock products and with the manufacturers of agricultural necessities, particularly of implements. At the outset, let me say that we have no quarrel with our competitors, since what they have accomplished has simply been the outcome of the fortunes of war, trade war, and it may be added that the enterprise of some of these has been of very great advantage to our agricultural progress.

### WHICH PAYS THE LARGER DIVIDEND?

I wish to call attention, however, to differences that may be noted generally as the results of this competition. We are told that farmers are now receiving exceptionally good prices for their products but let us consider a moment. Milk shippers to Montreal are receiving at the rate of 20 cents a gallon for their milk delivered in the City. Deducting freight at the average rate, say of two cents a gallon, the shipper receives then a net price of 18 cents on the farm. The retailer in Montreal obtains just twice this price, viz., 36 cents a gallon. Estimating in our minds the capital involved in milk plants in Montreal together with necessary labor, etc., in a comparison with the capital invested in dairy herds, farms, stables and this again with cost of labor including reasonable wage for the owner, I would suggest the question—which capital pays the larger dividends?

Another illustration: There are large produce firms, buyers of butter and cheese, operating in Ontario and Quebec and correspondingly large firms in Glasgow, Liverpool, London and other ports in Great Britain handling millions of pounds of import goods. It is a rare thing that produce firms fail; it is a rare thing indeed that they do not build up big fortunes in the business, and yet the farmer, the real producer, does little more

than make ends meet. Again I ask the question—which capital pays the greater dividend?

### BUTCHERING BUSINESS MOST PROFITABLE

Another illustration: There are large packing houses and wholesale and retail butcher firms in Toronto and Montreal. There are larger ones in Chicago, Kansas City, Buffalo and New York. The butcher business in all its branches is one of the most profitable industrial enterprises in the commercial world. Witness the immense fortunes and the number of them which have been built up in very recent years in the trade. Here in our own little village of Ste. Anne, with a population of about 1,500, we have four flourishing butcher shops, all doing well. And yet the farmer is able only to obtain a price for his live stock products which in the end barely yields him a comfortable living. It is true that his business is conducted upon by no means so large a scale, nor upon perhaps such careful lines but nevertheless the fact remains that, unless there be a change of policy, his business must suffer in competition with his stronger rivals.

### WHERE WE STAND

The point I wish to make is this—that the farmer is able to determine neither the price at which he will buy nor the price at which he will sell, since prices are determined for him on the one hand by the manufacturer and on the other by the produce merchant. It may be argued, of course, that prices are regulated by supply and demand but the operation of organized business interests in their influence upon markets is now very well known and the general import of my statement remains in substance true. It is further true that, consciously or unconsciously, it is the policy of these interests to allow the farmer just so much of return as will enable him to live and produce a sufficiently good article in sufficient quantity while the cream of the proceeds they gather to themselves. This is an economic principle holding in other branches of industry as well. It is a fact that the aggregate demand of the agricultural communities in a general sense



Prof. H. S. Arkell

much spoken in reference to such subjects and in reference to the problems involved, so that now, as touching these it would be difficult to say anything new. We know that the average cow is not a big producer, that the ordinary methods of horse breeding could be improved, that steer-feeding is a paying proposition under certain circumstances and that under others it is not. Information has been and always will be available concerning this whole matter and it would appear to me idle to attempt to discuss the question before us from the point of view of the individual farm.

There is another side to the question, however, which has to do with the problem of production in its relation to organized industrial interests with which it is in competition. It is not too frequently considered that the nature of this competition and of this relationship is a feature of more than ordinary importance in determining the status of our live stock trade. The competition of immediate interest is with



An Ayrshire Class of Senior Yearling Bulls in the Order of Placing at the Alaska-Yukon-Pacific Exposition, Seattle, Wash.

"Netherhall Douglas Swell," owned by Mr. R. R. Nees, heads the class with 1st place, and was also winner of the Junior and of the Grand Championship. Robert Hunter & Sons' "Bargenoch Victor Hugo," stands a close second and Reserve Junior Champion. This placing was reversed by Judge Dallantyne at the New Westminster, B. C., exhibition the following week. "Willersmoor Farm" stock stands 3rd, 4th and 6th, Barclay Farm's bull being 5th.

has an effect upon the final adjustment of things; but contrast the influence and power of—say a railway company, in comparison with that of our rural districts in the regulation of commerce and even in the control of markets. The logic of our argument leads me to say that our farmers as a class are, in a business capacity, at about the bottom rung of the industrial ladder. The laboring class even, through their federations and unions, supersede them in the exercise of their prerogatives in the control of matters in which they are interested. And if these things be true, will not the direction of what has been said suggest, in part at least, the answer to the question which we have had under discussion?

#### OUR INTERESTS NEED UNIFICATION

We cannot blame other businesses for having obtained a recognized advantage in the return from live stock and live stock products before their final disposal to the consumer. If these businesses have shown a larger insight into trade possibilities than has the producer, it remains to their credit and the results have been largely, as I said, the fortunes of war. In reply to the query of our subject "What our live stock interests need," I would suggest but the one word, "unification." There are hundreds of thousands of farmers in the country but for the most part they act and speak only as individuals in their relation to the concerns with which they are in competition. It is true we have our live stock Associations but they practically include only breeders of pure bred stock. We have also our local Farmers' Institutes and our Agricultural Societies but they have scarcely touched the problem with which we have to deal. The "Grange" even, one of the most promising organizations we have, has scarcely yet reached the root of the matter.

The work must commence in small local communities and concern itself there with the problems of breeding and production and marketing, in such a way that the whole community may reap the advantage of the use of good sires, of co-operative methods in the production of a high grade article and in the reduction in expense that may be obtained in placing it upon the market. The extension of its operations may then be carried into wider fields as has been the case in Denmark, but, in the beginning, the most hopeful outlook will lie in the direction of the undertaking of such work in the individual communities, from whence it will be naturally extended as it meets with success. Denmark has a message to the world through what it has done in this connection. Its methods have been described by others on different occasions so that I need to cite its example only as illustration here.

#### EXAMPLES OF WHAT HAS BEEN ACCOMPLISHED

Permit me to say in conclusion, though I may not go into details, that this work has already passed the experimental stage. Holland and Ireland are other examples of what has been accomplished, and in these countries, in co-operation with the farmers' organizations, the governments have done particularly effective service. Their assistance, amongst other things, has been directed toward preserving the uniformity and thereby increasing the efficiency of the systems followed while financial grants have also been given in aid of the schemes themselves. I have large faith in the influence the government may have in regulating and establishing methods and in the permanence it may give to them through its support, provided that always, after the initiatory steps have been taken, the responsibility of their maintenance, and even direction be largely undertaken by the communities themselves.

The organization of the live stock interests somewhat in the way I have suggested is, I believe, their largest need at the present time. It will be understood that I write solely from the stand-

point of the ordinary farmer or breeder. The interests of such as his are the least consolidated and therefore the least able to meet the brunt of competition on the open market. The leading of all successful business enterprises of the present time is toward legitimate combination and association—witness the manufacturers' conventions—and the improvement and stability of the live stock trade depends upon the same economic principles and will undoubtedly rest, in larger and larger measure upon co-operation and the association of common interests amongst the farmers and breeders of the country.

### More Heavy Horses Should Be Raised

T. Baker, Durham Co., Ont.

The best investment that any farmer, who is a horseman, can make is to get a good, registered draft mare or two and then keep them breeding. They can be worked until they foal. Provided they get a month's rest after foaling and are given good feed and care, mares will do the or-

dinary work on a farm and raise colts worth from \$75 to \$125 each. W. Jewel, Bowmanville, recently sold a draft yearling stallion thin in flesh for \$250. Geo. Annis sold a gelding for \$250 and a yearling registered filly for \$300. The writer refused \$125 for a stallion colt four months old. A few months ago, I saw three thin geldings sold for \$730 and a pair of registered fillies near Bowmanville were sold at \$650. The above prices mean handsome profits to the farmer.

Robt. Miller, Stouffville, is buying foals from \$75 to \$125 each, and shipping them to the North West by the ear load. Pat Burns, the cattle king of the west paid \$900 for a 1,900 pound gelding, with quality, raised at Newmarket not far from Toronto. Horses of draft type weighing 1,600 pounds and over, of good conformation and action are selling in Chicago from \$300 to \$500 each.

There is not another line in which a farmer can engage that will swell his bank account or keep paying off the mortgage faster than in producing draft horses of quality and size.

### THE PINE GROVE HERD OF SHORTHORNS AT ROCKLAND, ONT.

We have grown so in the habit of going to Great Britain for our best breeding stock it is interesting to know that the herd of Shorthorns on the Pine Grove Stock Farm, at Rockland, Ont., owned by Senator W. C. Edwards,



Senator W. C. Edwards

is said to have more animals of the great Cruickshank and Marr breeding than any other single herd in the world. Senator Edwards has been gathering his herd for many years. When he has found it necessary to pay a big price to obtain an animal of particularly choice breeding he has not hesitated. This was shown when some years ago, at a public sale in Chicago, he paid \$6,000 for the splendid cow Missie 153rd, bred by the late W.

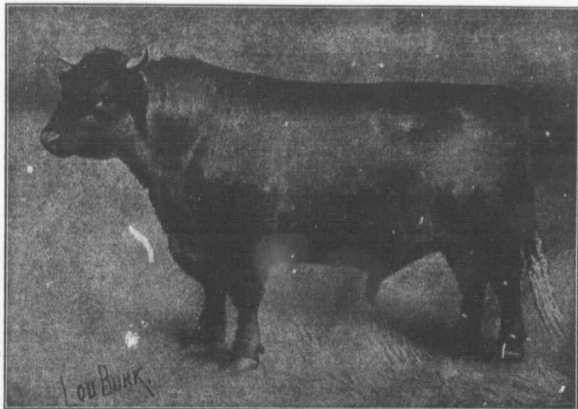
S. Marr of Aberdeenshire, Scotland, one of the most noted Shorthorn breeders in the world. Mr. Marr, at the time of the sale declared her to be "My best Missie." Stock from this cow, including her son—from a Duthie bull with Cruickshank breeding—Miss Champion, form an outstanding feature of the Pine Grove herd. The famous bull, Marquis of Zenda (imp), a full brother of Missie 153rd, which headed the Pine Grove herd for a number of years has also left some exceptionally fine stock, particularly females.

Through purchases that he has made, both in Great Britain and the United States, as well as by the animals he has bred, Senator Edwards has acquired a herd of Shorthorns, that, for richness of breeding, courts comparison with any other herd in the world. The animals in this herd need to be inspected in their stables to be appreciated at their full worth.

#### START OF THE HERD

Senator Edwards made his start in Shorthorns in 1862, when as a boy he made his first purchase, consisting of a bull, two cows and a yearling heifer, from the late John Walton of Peterboro. He then intended being a farmer and nothing else, but in 1863 he was induced to enter the employ of a lumber firm. Although he has been

(Continued on page 15)



Missie Champion—48,278, One of the Stock Bulls on Pine Grove Farm, Rockland, Ont.

This bull is a son of the cow, Missie 153rd, for which Senator W. C. Edwards paid \$6,000 at a public auction in Chicago. The young stock from him in Senator Edwards' herd prove him to be an exceptionally fine sire.

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## Why We Should Breed More Pure-Bred Dairy Cattle

G. A. Brethen, Peterboro Co., Ont.

The weight of argument is all in favor of breeding pure-bred dairy cattle as against nondescripts, or grades. Pure-bred dairy cattle are the shortest road to success—dairy success. Cattle bred for generations for any one purpose, are more certain to breed true than cattle of mixed breeding, grade! up from ancestors of nondescript parentage, the latter being as apt to pass along the producing qualities of their ancestry



Another Individual that is a Good Worker at the Pail

Countess Calamity Clay A. 4971 has given 12,000 lbs. of milk in seven months. She is but one of the good ones in the herd owned by Mr. S. J. Foster, Prince Edward Co., Ont.

as are the progeny of more illustrious queens of the dairy.

"The fountain rises no higher than its source." At the back of 99 out of every 100 large records of production lies the influence of the inherited blood of some great pure-bred dairy sire in their ancestry. Such being the case, it is scarcely reasonable to expect the average grade cow, handicapped as she is by varying amounts of the blood of inferior dairy cattle in her composition, to equal or surpass the average production of her more carefully bred relative, the pure-bred dairy cow, although we do often hear it remarked that a "high-grade is just as good as a pure-bred any day."

### AN EXAMPLE OF PROFIT

Two strings are attached to the bow of the breeder of pure-bred cattle, and this is a strong argument in favor of the pure-bred cow from the financial standpoint. Not only has he increased production of milk and butter, but whereas the future calf of the grade cow will rarely realize as high as \$5, the calf, from the pure-bred cow, requiring no more feed to build it up in embryo will readily be snatched up at an advance of many times the amount that can be realized on the grade calf. I have seen cows sold for \$40, at local auction sales, the auctioneer making the remark, "Aside from her feed, she will pay for herself in one year." Put \$40 worth of feed into that cow and her profit is nil. Put the same amount of feed into your pure-bred cow or heifer, for instance "Belle of Whittaker, Sadie Vale," a fair average for a three-year-old in the "Hill-Crest Herd," her returns for exactly four months is this: 5,625 pounds milk at \$1.00 a cwt., \$56.25; her bull calf shipped on that date brought \$75; total \$131.25. I do not know just how this looks to the average keeper of grade cows but I know that it feels like good money to me.

### INTERESTS THE YOUNG BULK

Pure-bred cattle offer a solution to the problem of keeping boys on the farm. Give the boy a good pure-bred cow to feed, milk, scale and exhibit, if he so wishes, and in most cases you have the necessary magnet that will hold him to the oldest, most interesting, most independent of all

occupations, Canadian farming. The production of his cow and her near relatives will act as a spur to educate him in feeding and handling cattle while every success in phenomenal dairy production is a source of great financial gain through her progeny—her bulls and heifers selling for increased prices—to every owner of such a cow. In contrast to this latter fact, please note that the value of a good grade cow in a herd usually dies with her.

To any one who has made a success of handling grade dairy cattle, I can in all sincerity proffer the advice taken from my own experience, "Stop up into the pure-bred ranks; transfer your 'private' milk records into those in which the public at large will place more confidence, i.e., the Government Record of Performance; sell your surplus calves, whether male or female, for a greatly enhanced price—fully 10 times—over and above what you can fondly hope to get for grade calves of similar standard in milk production; get cows in which your boys (and girls for that matter) will take an interest, yea and enthusiasm, and you will find farming more interesting, edifying and profitable than if you stayed with that great unknown quantity in this Canada of ours, the grade dairy cow."

### Light Horse Breeding

Dr. H. G. Reed, V.S., Halton Co., Ont.

Although it is generally acknowledged (and I believe correctly so) that the breeding of the heavy horses is more profitable than the breeding of the lighter animals, yet there are some men whose tastes prompt them to raise some of the lighter breeds of horses.

In the breeding of light horses more attention has to be paid to the quality of the dam and for that matter to the sire also. A heavy horse of poor quality may be useful as a slave on the farm but a poor, light horse is not much use for anything. There are three classes of light horses which are always in demand, viz., road, carriage and saddle horses.

The roadster is represented by the Standard-bred. Horses of this breed are best for road work. They have a free, easy way of going, can usually move along fast enough for any ordinary driving and not infrequently develop speed enough to make them valuable in the market. Many of them however are too small. Breeders should try to correct that fault by using big, strong mares and mating them with stallions of fairly good size. Do not sacrifice too much for speed. Speed is a very uncertain quantity at best and a little road horse without speed is an un-

desirable animal whereas a big, good-looking road horse even without much speed is always in demand.

In our country the Hackney is essentially the carriage horse and although we sometimes see a high class carriage horse bred from the Standard-bred horse it is the exception and not the rule. In the breeding of Hackney colts care should be taken to use only such dams as are well bred themselves, either grade Hackneys (or better still pure bred) or such as have a dash of good hot blood in them. Either the Thoroughbred or Standard-bred will do all right. The practice of breeding a mare of a drafty type to a Hackney stallion cannot be too strongly condemned. The result is almost always a coarse sort of an animal altogether unsuited for carriage purposes. But given a well bred mare of any of the light breeds her produce from a Hackney should generally prove satisfactory.

### SADDLE HORSE

The Thoroughbred is at the head of saddle horse breeding and it is rarely that we find a really high-class saddle horse which does not trace close up to a Thoroughbred. Here again we must avoid the drafty mare; the cross is too violent and good results seldom follow. However, the Thoroughbred will produce better stock when mated with a cold blooded mare than any other of the light breeds. Indeed many of our best heavy hunters are produced in that way and it is very difficult to get a horse heavy enough to carry weight across country by any other method of breeding. Good breeding in the saddle horse makes him so much the better, but we must have weight also, even if we have to sacrifice quality to a certain extent.

### Gooding and Milk Contamination

J. H. Blair, Carleton Co., Ont.

To keep cows clean the stalls should be well scraped down and the cows kept bedded with either cut straw or sawdust. As straw is a scarce commodity with us we have used sawdust almost exclusively and as an absorbent it gives excellent satisfaction, though it does not make the manure so easily decomposable. Considerable of



The Sort That is Always in Demand at Remunerative Prices

The Hackney is the acknowledged carriage horse of Canada, and is probably the safest proposition offering to those farmers that have a fancy for light horse breeding. The horse shown above was exhibited at the Western Fair, London, by Mr. Jack Sprag, of Kent Co., Ont.

the bedding should be kept in the gutter to absorb all the liquid so that when lying down the cows' tails will not become befouled. The cleaning process consists of currying the cows all over at least twice a week and in brushing with a good stiff cow-brush every day. In this manner the skin is kept in excellent condition and all dirt and old hair are removed before they become loose enough to fall into the pail while milking, thus removing one of the worst sources of contamination to which milk is exposed.

## A CANADIAN PIONEER CLYDESDALE HORSE IMPORTING AND BREEDING ESTABLISHMENT

Operated by Messrs. Smith and Richardson, Columbus, Ont.

**H**ORSES are to-day about the best selling stock that a farmer has. In spite of motors and self-driving machinery which it was predicted, at one time, would displace the draft horse he is more popular and more in demand than ever. It was recently the privilege of the Editor of Farm and Dairy to visit the well known Clydesdale horse importing and breeding establishment of Messrs. Smith & Richardson, at Columbus, Ont, which establishment has been most successful in catering to this demand.

Messrs. Smith & Richardson, and their fathers before them rank among the pioneer Clydesdale breeders and importers of this country. Mr. Smith was at one time a partner of the late Joe Thompson, the pioneer horseman of Canada who brought over horses 60 years ago. Mr. Richardson's father was in the importing business from about 1870. Both Mr. Smith and Mr. Richardson were in the business individually for years until they formed in 1900 the present partnership.

### THE DEMAND FOR HEAVY HORSES

They started into the business with the belief that the Clydesdale was the best heavy horse in existence; they are still of the same mind, their efforts to date, in their opinion, having fully justified the contention. Trade is especially good at present and is likely to be. Heavy horses, possibly, were never so scarce as they are just now. The demand from the West takes about everything that is offering. Already buyers are looking for horses for this trade, which is a most unusual thing for so early in the season. Most years it is well on into January before the Western business becomes active.

Although in partnership Mr. Smith and Mr. Richardson each have their separate farms. The horses are all kept at Mr. Richardson's place one quarter mile east of the village of Columbus, four miles from Myrtle on the C.P.R., four miles from the new line — C.N.R. — now building, and six miles from Oshawa. This farm comprises 200 acres; Mr. Smith has 300 acres. A nice bunch of Clydesdale geldings are kept on each place to do the farm work. Speaking of his geldings Mr. Richardson said: "Such horses can take their place on any farm in any part of the country. They are the ideal farmer's horse."

A new barn was built two years ago to accommodate the horses. The barn is 117 by 50 feet, with an "L" 40 by 60 feet. It stands on a nine foot hollow cement wall 14 inches thick with a two inch air space, the two walls being bound together by means of old horseshoes. "The air space is a decided advantage," said Mr. Richardson. "Even after prolonged periods of severe weather there will not be so much as a spot of frost or moisture on the walls, whereas a solid cement wall would be thickly frosted which frost

at the first thaw begins to drip and causes the stable to be damp, just the opposite to what it should be." The stallions and mares are provided for in roomy box stalls. The partitions are of Elm plank the planks doweled together with iron pins which makes the whole partition as one solid plank. Partitions between the boxes are solid. A horse cannot see the animal next him, although a grating in the front of the stall allows him to see a horse that may be in the box across the



Mr. Wm. Smith

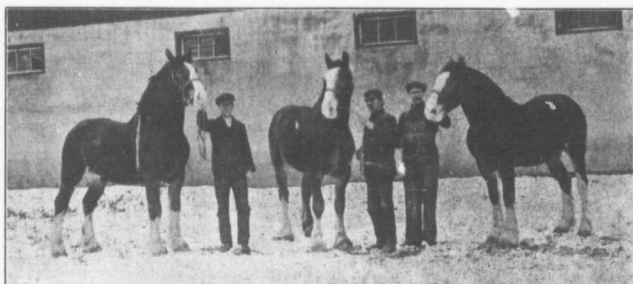


Mr. Fred Richardson

alleyway. The boxes vary in size from 11 by 14 to 13 by 14 feet.

### FEEDING METHODS

Unlike many horsemen, Messrs. Smith & Richardson feed nothing but oats, *blinn* and cut hay with occasionally a little long hay, and some oil-cake. They do not feed boiled feed. Their feeding methods are costly but Messrs. Smith & Richardson claim that when fed in this way horses prove to be much surer "getters," it keeps them up fit for service and when the horses pass out



[Three individuals from the String of Two-year-old Clydesdales Owned by Smith & Richardson

Commodore (9,991) (14,633) Dunure Gold Link (9,600) (14,938) and Dunure Soutar (9,598) (14,669), three sons of the renowned Baron O'Suchyvic, said to be the best breeding son of that world famous Clydesdale sire, Baron's Pride.

of their hands they are in better condition to give satisfaction. These men have and always have had the welfare of their customers at heart. Their horses are not pampered and puffed out with special feeding and as a result they stand the work required of them and do not go to pieces as do so many corn fed, or doctored horses.

When purchasing their horses Messrs. Smith & Richardson always aim to get them with size and quality. It is easy to get small horses of quality but these men claim that there is no reason why

big ones that possess quality as well as size can not be got. The stock of horses on hand bear out their contention.

### QUALITIES OF THE STOCK

In addition to size and quality they demand that a horse shall have action; he must be able to move, else he is useless. The Clydesdale has always been noted as a scrambler and the stock under discussion in demonstrating their ability to move—uphold the coveted reputation of their breed. Horses of good bone, lots of it, flat, hard and flinty are the kind that these men endeavor to handle. They always endeavor, without actually scaling the horses, to get the kind that look big without having to be "beefed" to get them to look the desirable size. The expert feeder can make an 1,800 pound horse weigh 2,000 pounds with beef, but Messrs. Smith & Richardson endeavor to save the horse that shall look big without that beef and such is the kind they have in stock. They also are sticklers on the point that a stallion shall look like a stallion, that he show masculinity even at a glance.

The horses are exercised each day rain or shine save on Sundays. This keeps the stock hardy and develops muscle. Paddock are used for exercising the younger stock. The older ones are led. Four men are in charge of the horses constantly. All the horses are groomed each day. At one time this practice was not followed but it is now believed to be better for them, so each one gets its daily brushing.

The usual importation made by Messrs. Smith & Richardson is in the neighborhood of 15, one importation and sometimes two having been made each year since they started. In making their selections they endeavor to buy the get of a good prolific sire, out of a prolific mare. Such horses invariably turn out to be satisfactory breeders the trait seeming to be inherited, and it accounts in a large measure for the success of horses handled by this firm. Horses are always bought from A and W. Montgomery and P. Crawford, Dargavel, Dumfries, Scotland. "The best is none too good if it can be bought" has been the motto of Messrs. Smith & Richardson in making selections.

### SHOW RING CAREER

Messrs. Smith and Richardson have had an enviable show ring career. This firm has been one of the largest winners in Canada of any breeders and importers of heavy horses. They show no other horses but the Clydesdale, their whole interest being concentrated on this favorite Scotch breed. They have been able to land the Sweepstakes on aged stallions and on mares many times and have never been at a show but that they were able to show for the Sweepstakes. Best of all these, prize winning horses have turned out so well in the stud that they are able to make the claim that without a single exception their winning horses have given a good account of themselves as breeders.

(Continued on page 17)

### Plant Breeding Applied to the Farm

L. H. Newman, Secretary, Canadian Seed Growers' Association, Ottawa

The scientific breeding of high-class animals is now a well established industry. The breeding of plants with a view to developing improved strains and races is of comparatively recent origin.

After long years of close observation and study, breeders of live stock have collected an immense number of facts bearing on the many problems affecting the transmission of life and have classified these under well defined laws. The breeder who undertakes to improve his herd is now in a position to regulate his practice and order his course. By observing certain principles he is reasonably sure of certain results. The main principles which obtain in animal breeding are as follows:

(1) Those laws of heredity which decree that in the main "like shall produce like." (2) The law of variation. (3) The law of atavism or reversion. By taking due consideration of these laws and mating judiciously the road is open for an improved offspring. These same principles which have been recognized to such good purpose by our animal breeders have, within comparatively recent years, been found to govern the great plant kingdom, and, if taken advantage of, to be of inestimable value in the moulding of more useful plants.

#### SEX IN PLANTS

The fact that there exists among plants two distinct sexes and that these act, in all essential particulars in a manner almost identical with that of members of the animal kingdom was never fully demonstrated until the beginning of the nineteenth century. Following this discovery varieties have been originated in countless numbers and great improvement over original forms has been effected. Plants of our ordinary cultivated field crops such as wheat, oats and barley are hermaphrodites. That is, the male and female organs are found on the one plant. Here they perform their natural functions at a certain appointed time and offspring, which we call 'seed', is produced. These self fertilized plants can thus reproduce themselves independent of outside interference. It has been found, however, that cross-fertilization or the bringing in of an outside male possessed of special merits often results in the production of hybrids of superior quality and yielding capacity. This crossing of two individuals of widely different characters breaks up the parent type and tends to encourage great variation. This makes possible the isolation and selection of superior types.

#### IMPROVEMENT FROM SELECTION

Within recent years it has been found that our varieties are composed of a great many distinct types some of which are vastly superior to others. It has also been shown that, while 'like tends to produce like' yet there is a continual variation going on within the species so that artificial crossing to induce the type to vary is not considered so essential as it once was. This discovery has opened up an immense field for the improvement of plants. While artificial hybridizing will probably always have its place yet the possibilities for improving upon what we already have, independent of cross-fertilizing, are such as to force this practice to a relatively lower place.

#### A SIMPLE YET EFFECTIVE PLAN

A plan which is open to those who wish to avoid the penalties which follow upon the use of run out and unproductive seed, is found in the selecting of heads from the most desirable plants produced on a special seed plot. A sufficient number of heads may be secured in this way to give enough cleaned seed to sow another plot the following year and in this way a cumulative action is created which results in raising the "mean" of the strain to a higher plane.

This in brief is the plan being followed in Can-

ada at the present time by the members of the Canadian Seed Growers' Association, with splendid results. While it may have its limitations, yet its actual practice it is proving both effective and simple.

Two years ago enquiry was made of those members who had been operating according to the above system for a number of years as to what improvement they found in their crops as a result of their efforts. The replies are significant. Eighty-eight per cent. reported that they found an improvement in the size, plumpness and quality of the kernels; 83 per cent said that they could observe good results in keeping strains pure; 73 per cent. said the strains were becoming more adapted to local conditions; 64 per cent. said selected strains matured more evenly; 47 per cent said selection had rendered strains more resistant to rust and smut.

### Beef Cattle on the Farm

W. A. Dryden, Ontario Co., Ont.

If the present prices for beef are maintained for a short time a large number of farmers will probably go back as feeders of cattle for the home butcher or for export. There is a possibility then of an overproduction of a certain class of cattle which are not profitable to feeders or to

the butcher. Such a condition reduces the price of all grades.

Many cows which are unprofitable as purely dairy cows might be made to yield splendid returns if mated with a good beef bull, providing that the young animal is treated properly. Why not have such females bred to calve in the fall, allow the calves to nurse all winter and run with the dams for a time on grass in the spring? Then as the dam is likely to calve early the following fall take the calf away from her, keeping it inside during the day from the heat and flies; allow plenty of good fresh green feed and try to encourage rapid growth as well as to maintain the early calf flesh.

A good calf thus treated should be easily fattened at 12 to 18 months of age and be ready for the butcher at a weight of from 1,000 to 1,200 lbs. At this age, young cattle properly finished are quickly bought at from \$6.00 to \$6.25 a hundred pounds, and with the above weights realize as a sale price \$60.00 to \$75.00 a head. This is surely as profitable, considering labor and machinery, as the average dairy cow. A number of things point to high prices for all beef for some time to come and many more bulls suitable as sires of good feeding cattle could be profitably employed throughout this province.

### THE HOME AND STOCK OF A SUCCESSFUL AYRSHIRE BREEDER

**A**n enterprising breeder of Ayrshires who bids fair to become one of our most noted stockmen is Mr. Hector Gordon of Howick, Quebec. Within recent years, he has built up a herd of Ayrshires of which any breeder might be proud. Early in life, it became Mr. Gordon's duty to take charge of the home farm. His



Mr. Hector Gordon

father before him had built up a herd of grade Ayrshires, thus he was identified with this great dairy breed from boyhood and early he learned to appreciate their splendid dairy qualities. During his early years, there as instilled in Mr. Gordon's mind many true ideas regarding live stock husbandry and the experiences with which he met taught lessons which can be learned only by every-day practice. While judgment and initiative was being exercised in his early years, he developed

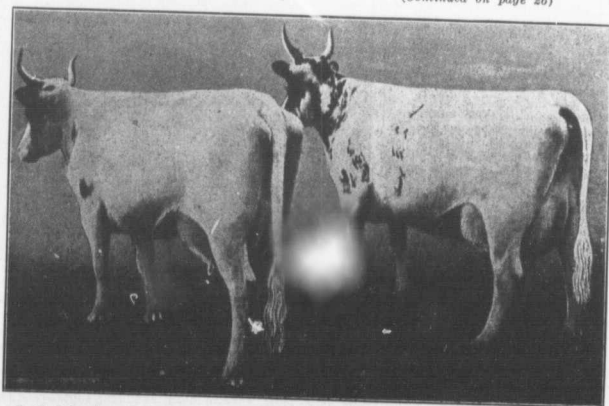
aspirations to better things, the result of which was that he resolved to build up a herd of pure-bred Ayrshires that would eventually hold a high place such as his father's herd of Ayrshire grades had done before him.

#### THE HOMESTEAD

Mr. Gordon is of Scotch parentage. He was the oldest child and was born in the house in which he now lives about two miles from Howick, Que. The farm known as the Stonehouse property, derived its name from the fine old stone house erected thereon over 70 years ago by Mr. Gordon's grandfather. The residence is of that style of house built in those days by early settlers. It has heavy, solid walls with deep windows. It is large, roomy and modern and shows the best of workmanship. Here Mr. Gordon and his general partner make all visitors welcome and they are ever ready to show their fine herd of Ayrshires.

The farm contains 100 acres of the best of clay loam. It is easily drained and is well worked.

(Continued on page 26)



Monkland Snowdrop 4th (Imp.)—21,360.— Monkland Pansy 2nd (Imp.)—21,359.— A pair of typical Ayrshire cows that are making good at the farm. Owned by Mr. Hector Gordon, Howick, Que.

A NOTED JERSEY BREEDER, HIS FARM AND STOCK

Stock That Has Been Bred for Utility as well as for Fancy Points and Pedigree, and Has Won an Envious Reputation for the Man Who Owns it.

Dairymen everywhere are in search of a cow that will produce the greatest profit over and above her cost of feed. Such a cow, it is claimed by their champions, is found most frequently among the Jerseys. And they put up strong evidence to prove their claim. Jerseys rank among the best dairy cattle in the world. "It is a poor country that knows not the Jersey," said Mr. Duncan of the Don. France and Sweden are heavy purchasers of Jerseys and it is said that Denmark cannot be supplied with all that she would take. The Danes have demonstrated that Jerseys produce butter at 10 per cent. less cost than do their own cattle. Australia, South Africa, Egypt, Russia, Spain, in fact all countries where high-class dairy cattle are in demand, including the United States and Canada, all have the Jersey. Jersey cattle are in demand everywhere, not for beef production, but for large quantities of rich wholesome milk and butter of quality and quantity unapproached by any other cow. Mr. Duncan is probably the oldest as well as one of the largest breeders and exhibitors of Jersey cattle in Canada. It was the privilege last week of the Editor of Farm and Dairy to inspect his fine herd at their home stables.

FOUNDING THE HERD

Over 30 years ago, Mr. Duncan founded what is acknowledged by competent judges to be one of the best herds of Jerseys in the Dominion. After informing himself as to the merits of the various breeds of dairy cattle, Mr. Duncan came to the conclusion that the Jerseys were the cows for him. Through his long years of experience with these cattle, he has found that more butter can be obtained from their milk than can be obtained from the milk of any other breed and he believes that they produce more milk for the feed consumed than any other breed and hence make more money for the dairy farmer. His start was made with Kittie of St. Lambert and Cora of St. Lambert, two excellent heifers purchased from Mr. R. Stephens, of Quebec Province. Through the use of imported bulls and bulls out of imported dams, Mr. Duncan has bred up a herd which to-day numbers over 100 head and which individually and collectively are a distinct credit to their owner, to the breed they represent and to the country at large.

The farm is easy of access. It is situated about six miles from Toronto, within two miles of the C.P.R. station at Donlands, three miles from the electric railway that runs from Toronto to Newmarket and is just across the road from Duncan Station on the C.N.R. The farm comprises about 350 acres of which 270 are under cultivation. It is pleasantly situated and is an ideal dairy farm. In summer the Jerseys have the run of a large area of natural pasture through which runs the Don River. Shade in abundance is provided in this pasture by statice elms and other trees. The cattle amidst their summer environment, as may be gained from the illustration on this page, would provide ample scope for the imaginative pen. This property has been in the possession of the Duncan family for about 60 years. Mr. D. Duncan, the present owner cleared off much of the timber, took out thousands of pine stumps and made it the beautiful farm that it is to-day. The cattle are accommodated in

large, convenient stables, which are well ventilated. Ventilation is by means of boxes that carry the foul air out at the roof of the barn and by means of the windows all of which are hinged at the bottom and can be opened as little or as much as is needed to meet the prevailing conditions. Each window is fast in position when open by an ordinary four inch nail inserted in a hole bored for the purpose, a number of these holes being provided so that the width of the opening may be adjusted as desired. The stables throughout are white-washed and present an attractive appearance. This white-wash is made from pure grey lime slacked with boiling water and applied hot by means of a spray pump-pail and Zenoleum are included in the white-wash. Each day or several times a week, the stables are disinfected with Zenoleum applied by a small compressed air sprayer. Through these sanitary precautions, ventilation, white-wash and disinfection, the effect is pleasing to the visitor, there not being any foul odors noticeable and by this means, Mr. Duncan maintains a healthy, vigorous herd.

STABLES KEPT AT EVEN TEMPERATURE

The work of cleaning the stables is facilitated by a litter-carrier, the efficiency of which is well vouched for by the herdsmen and the other men in charge of the cattle. Cement floors and cement mangers have been installed throughout the stables. The comfort of the cows is considered at all times. Two thermometers hang one at each end of the stable. By means of these the herdsmen is enabled to regulate the temperature, which he endeavors to keep to 54 degrees as near as possible.

Thirty-five cows are now in milk. The milking herd averages from 30 to 40 the year round. As soon as drawn, the milk is separated, the cream taken to the house and the skim milk fed to calves and pigs. The cream is disposed of in Toronto, where it is taken four times weekly. The firm handling it considers it the best that comes to the city.

What is considered to be one of the



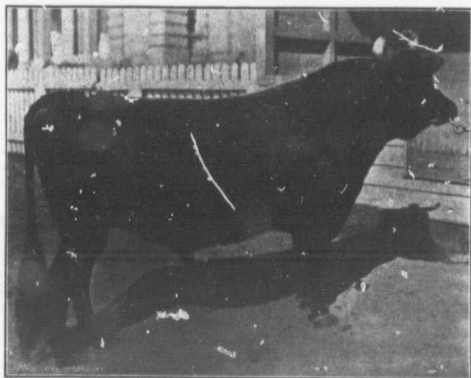
Did You Ever See a More Ideal Spot for Dairy Cattle?

The illustration shows a part of the natural pasture at "Mastfield," the home of the Don herd of Jerseys, owned by Mr. David Duncan, Don, Ont. "Mastfield" and the Don herd are dealt with in article adjoining.

vania, and sold in 1903 for \$1,035. It is easy to account for the success of Fontaine's Boyle, both individually and for all his stock. The blood that all Jersey men are after to-day, is the Golden Lad blood. Fontaine's Boyle, it may be noted, traces back through both his sire and his dam

of the capabilities of this animal as a sire.

Space permits us to mention only a few of the many outstanding cows that grace this herd. Lady Primrose of Don was 12½ year at Toronto, first for cow and two of her progeny. It



The Proven Sire That Now Heads the Don Herd of Jerseys

Fontaine's Boyle 332, C.J.C.C., by Golden Fern's Lad 65,300, and out of Nunthorpe's Fontaine 172,289, imported by T. S. Cooper and sold in 1903 for \$1035. This bull is considered to be one of the best bred Jersey bulls in America. Both his sire and dam trace back to the great Golden Lad strain. Read his record in the adjoining article.

to the great Golden Lad strain. The stock of Golden Fern's Lad, the sire of this bull, has sold at public auction for the highest figures on record, in which connection might be mentioned Flying Fox, sold for \$7,500; Eminent 2nd sold for \$10,000, and Sensational Fern sold, when eight months old, for \$10,200. The heifers from Fontaine's Boyle, though few in numbers as yet, have proved to be some of the best which Mr. Duncan has ever raised. At Toronto Exhibition this year, his first heifer, as a junior yearling in milk, was first, and junior champion, and was also first at Ottawa, at which time she was giving 36 lbs. of milk a day. This heifer is Matinella of Don, which,

years past she has won many prizes at the leading fairs against imported stock.

Ari's Queen of Don, 190,989, was (Continued on page 11)

LAND AT FORT WILLIAM

100 acres of good garden soil, only five miles west of the prosperous City of Fort William, on the line of the new street railway, now under construction, already within ½ mile, which will be run through the property next summer; also only ¼ mile from the Junction of the C. N. Railway and P. D. and W. Ry.

100 acres of choice garden land, only four miles west from the City of Fort William, on Arthur street, and only one mile from Neehing Siding on the C. P. Ry. Line. The above property is also well adapted for dairy farm as it has a fine spring creek running through the property. It is high and dry and free from stones.

Either of these properties can be bought on easy terms.

For further particulars apply to

J. R. HUTCHISON SLAVE RIVER VALLEY, ONT.

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**The Feeders' Corner**

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

**To Dispose of Coarse Fodder**

I have a large number of corn stalks and straw over and above what my cows will consume along with their other feed. Would it pay to put in steers and buy grain to feed with it, or would you advise getting some young cattle and allow them to rough it on these feeds? What profit can I reasonably expect from feeding good big steers on this rough feed in addition to what I would have to buy to supplement it?—G. F. Grant Co., Ont.

I would under present market conditions and with present prospects for spring prices think it more advisable to put in steers to feed off rather than put in young cattle to rough it on such feed.

On good Big steers of fair quality fed well for four months you might expect an increase in value of from \$20 to \$30 according to how well you feed and prices for such a feed.

Such steers would require about 300 lbs. meal each in four months. The meal mixture had better be about equal parts bran, barley, oil cake meal and corn meal. Dur or five weeks on feed this might be changed to a mixture of 2 bran, 1 barley, 2 corn, 3 oil cake meal. To start give about 2 lbs. of meal mixture per diem. Increase fairly rapidly at rate of one pound a week or more if you manage steers to be about right.—J.H.G.

**Quick or Slow Finishing Hogs**

Which would be the more profitable; to fatten pigs along by heavy grain feed so that they would weigh the 150 or 200 lbs., as demanded by the packer, when six months old, or carry them along at slow feed, or carry them along at slow feed, and have the pigs reach this weight at nine or ten months? To what extent can roots and other rough feeds be used profitably in hog feeding?—R. J. L., Leeds Co., Ont.

Greater profits may be anticipated from forcing pigs along by heavy feeding to have them reach the 150 or 200 lbs. at six months old, rather than letting them drag along till nine or 10 months old, before attaining the desired weight.

This may be said however, that where pasture and other cheap green feeds are available and cannot be utilized profitably in any other way, it might pay to let the pigs come along slowly on these feeds.

Roots and green feeds may enter quite extensively into the feeding of pigs it is desired to get ready for the market at from 6 to 8 months. If mangels, sugar mangels or sugar beets are fed, then feed whole or pulp and mix raw with meal. Sugar beets must be pulped. If turnips, potatoes or pumpkins are available then it will pay to cook and mix after cooking. Feed while yet warm if at all possible. The amount is about the same for all kinds of roots say from 4 to 8 lbs. per pig per diem. In summer rape, clover, vetches, etc., may be profitably fed in somewhat similar quantities.—J.H.G.

**Feeding Idle Farm Horses**

How would you advise us to feed our idle farm horses from next spring in order that we may bring them through as economically as possible and still have them in good condition for work next spring?

The feeds available are an abundance of straw, mixed with hay, silage, mangels and such grain as are usually grown on the ordinary dairy farm. We would like to be as economical as possible in our feed.—J. C. H., Hutton Co., Ont.

The feeds at hand are with the exception of mangels quite suitable for horses. Very little grain should be

necessary till about a month before the beginning of spring work. If grain is being fed heavily at present I would not advise dropping off entirely as soon as work stops. It would be better to gradually decrease the grain feed until at the end of 10 days the horses were receiving what you considered possible to give them daily through the idle season, say three or four pounds, or less each per day.

I would suggest the following as a good plan to follow for the idle season:—

- Morning:—5 lbs. ensilage, 5 lbs. straw; 1 or 2 lb. oats.
- Noon:—5 lbs. hay, 1 lb. oats, a mangel.
- Evening:—2 lbs. hay, 5 lbs. straw, 1 lb. oats, a mangel.

An occasional hot bran mash or boiled oats will do them good.

About a month before work on the land begins the ration should be gradually increased and the ensilage cut off. A mixture of 200 lbs. whole oats and 100 lbs. bran will be found to be more wholesome, more satisfactory and less costly than any oats exclusively not only while getting ready for spring work but at all times, even when on hard work.—J.H.G.

**Shall We Cut the Feed?**

What are your opinions in regard to cutting feeds during the average farm? Is not the practice a waste of time in so far as good quality of hay and straw are concerned? I have many notices that cow seems to relish whole mangels and long hay.—H. A., Durham Co., Ont.

It is a waste of time and energy to cut mangels, straw and hay where these are the principal parts of the ration and of good quality. Where the hay or straw are poor it will probably pay to cut them, pulp the mangels and mix together. Where ensilage is being fed one of the best ways to feed it is to cut the straw and mix in the proportion of from 5 to 10 lbs. cut straw to 100 lbs. ensilage.

Hay is in my opinion and practice always better fed long if of fair quality. If very inferior in quality then cut and mix with ensilage and pulped roots.—J.H.G.

**Good Feeding Pays**

I see a lot written about dairy cows not being fed enough to produce the quantity of milk they might. Do you think it pays to feed cows up to the 2 or 3 highest in production? Is it not better to feed more moderately and get an average milk production? Would not a high production that we hear about absorb all the profit for a cow giving, say 30 or 40 lbs. per day?—J. B., Stansted Co., Que.

Dairy cows as a rule receive too light meal rations in Canada to enable them to do profitable work. There is very much in favor of feeding very much more heavily than does the average Canadian farmer. There is very little danger of overfeeding the dairy cow in the average herd. Where sending milk to creamery or where such factory it is probably that heavy meal feeding would not be profitable, but where shipping to a city it is absolutely necessary.

To a cow producing 30 lbs. milk a day this time of year I would consider it necessary to give approximately the following ration. Corn ensilage 35 lbs. lacking ensilage then roots 40 lbs., or both available, then 5 lbs. mangels and roots 35 lbs., clover hay 6 lbs., bran 4 lbs., gluten and oil cake meal 2 lbs., chopped barley or corn or oats 2 lbs., oat straw 5 lbs.

If she is an average sized dairy cow this will keep her doing very nicely. If a large or dual purpose type of cow more will be necessary of all kinds of feed. Good feeding is not necessarily extravagant or dan-

gerous feeding, but rather the reverse. Good feeding pays.—J.H.G.

**Quantity of Grain for Cows**

I have a large quantity of barley as well as oats. What amount of this grain would you advise me to feed per cow, say, 40 lbs. of silage, a few roots and some red clover? Can I profitably sell some of this grain and buy any of the common mill feeds to take their place? If so, what feeds would you advise?—Subscriber, Quebec.

I would suggest the following as a most suitable grain or meal mixture to feed along with the 40 lbs. ensilage, the few roots and clover hay. Barley 100 lbs., oats 100 lbs., bran 300 lbs., gluten meal or oil cake meal or cotton seed meal 300 lbs. Any one of these three last is good, a mixture of the three is best of all. That is to say the best meal mixture I could suggest would be 300 lbs. bran and 100 lbs. each of oil cake meal, gluten meal, cottonseed meal, oats and barley. Note that I have said gluten meal. Gluten feed is not the same thing. The gluten should show over 30 per cent protein.

Oats at present prices are too dear to feed to cows save in small quantities as a sort of flavoring feed. Barley is not too dear but is not a retention, hence the suggested change.—J. H. Grisdale, Agriculturist, C.E.F., Ottawa.

**Re the Balanced Ration**

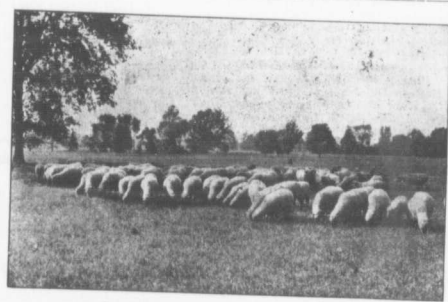
Please say in what quantity the following feed should be fed to dairy cows in order to get best results? What would be that which is referred to in the paper as "a balanced ration"? Feed on lupin-barley chop, oat chop, bran, ground rock salt, good upland hay, oat green feed. The cows are well stabled and have plenty of good water.—J. W. H., Edmonton, Alta.

To get the best results from the feeds mentioned I would suggest the ration given below. This ration would probably not be quite as narrow in the nutritive ratio as is generally recommended by advocates of a balanced ration but it would, I am sure, give good results. I suppose by upland hay you mean prairie hay.

Ration for 1,200 lbs. cow producing 30 lbs. milk per diem: Oat green feed, 12 lbs.; Hay (Upland hay), 12 lbs.; barley chop, 3 lbs. oat chop, 3 lbs.; bran 4 lbs.; salt 4 ounces.

The best way to prepare the meal would be to grind the oats and barley and mix 300 lbs. of each along with 400 lbs. bran, then feed about one pound of the mixture for each three pounds of milk produced by your cows, some cows might stand more feed than this, others less. The feeder must use his best judgment in determining the exact amount to feed.—J.H.G.

I like a good, clean, straight paper like Farm and Dairy.—Chas. Blake, Frontenac Co., Ont.



**Anybody Can Kodak**

There's no longer anything complicated about photography. From pressing the button to developing the negatives, every step has been made simple, easy. By the Kodak system it is daylight all the way. No dark-room is needed for loading, unloading, developing or printing, and all the processes have been so simplified that the merest beginner can take and finish the photographs with good results. The Kodak tank method of development has, in fact, so fully proved that skill is not necessary in development that thousands of professional photographers, in spite of the fact that they have the skill and have the dark-room facilities, are using the tank system of development for all of their work. Anybody can Kodak.

And there are interesting pictures everywhere, pictures that you can take and that you and your friends would enjoy having. Ask your dealer or write us for a copy of "The Kodak on the Farm."

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TORONTO, CANADA

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

### The Dominion Cattle Breeders' Association

Jno. Gardhouse, Pres., Highfield, Ont.

The Dominion Cattle Breeders' Association was organized in 1892, the first president being Hon. Thos. Balmantyne, Stratford. Reorganization of the Association was made in 1895. The Association was formed to encourage the breeding of a better class of stock, to assist in improving methods of caring for same, to assist in the extension of markets for cattle and in any way possible to improve conditions relating to the cattle industry.

The Cattle Breeders' Association is an association which takes its membership from among the breeders of all breeds of cattle and is in that particular different from the cattle associations for each of the various breeds of cattle. As a general association representing all breeds and all breeders it is in a position to take up matters of general interest to the cattle industry and carry a weight which any association representing one particular breed could not have. In transportation matters this has been especially noticeable, the special rates which pure-bred cattle now enjoy being largely owing to the representations made by this Association. This not only applies to the half rates on less than car loads of cattle but to the association cars of stock shipped in car loads to Western Canada.

This was one of the Associations chiefly concerned in the organization of the Ontario Provincial Winter Fair at Guelph along its present lines and the success of that institution has been largely due to the efforts of the representatives sent to the Winter Fair Board by this Association.

The Eastern Ontario Live Stock and Poultry Show also has four representatives on the Board appointed by this Association and other exhibition

associations have on their membership one or more members who represent the Cattle Breeders' Association.

### Sheep Breeders' Associations

A. P. Westervelt, Sec., Toronto, Ont.

The Dominion Sheep Breeders' Association was one of the first general associations organized in the province of Ontario to promote the interests of the live stock industry. The meeting at which the Association was

in improving the methods of caring for the same, to extend the markets for surplus stock and to look after the sheep interests generally whenever united effort would be of advantage.

Much good work has been done, especially in the extension of trade with distant places through the cheap and convenient arrangements secured with the co-operation of other live stock associations. Educational work has been carried on through the

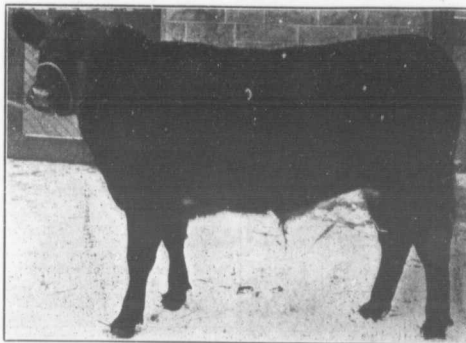
At each annual meeting a list of export judges is prepared and sent by the secretary to local fairs.

The National Records for sheep were arranged for by representatives of this association. Since the first pedigree was recorded in 1906 over 6,000 registration certificates have been issued. There has been a large increase in the list of members while the profits from registrations have placed the Association in a sound financial condition. At the last annual meeting a beginning was made with the distribution of these profits to the provinces in proportion to the number of registrations received from each one. This money will be used to promote the sheep interests of each province in whatever way the local associations consider most advisable.

After the annual meeting of the Dominion Association in February 1908 a number of the Ontario breeders met and decided that their interests could be best served by creating a purely Ontario Association. This resulted in the formation of the Ontario Sheep Breeders' Association. The new association relieves the Dominion Association of some of the work it carried on and will administer the share of the profits from registrations that come to the breeders of the province.

During the past year the Association has co-operated with the Ontario Department of Agriculture in the establishment of a number of demonstration sheep stations in various parts of the province. It is intended to find out at these stations exactly what an ordinary farmer under exactly what conditions can do with a small flock of grade ewes headed by a pure-bred sire. The work will be carried on for a period of three years during which time it is expected much valuable data will be obtained.

Renew your subscription now.



Grand Champion Steer of the Guelph Winter Fair, 1908

An Angus-Shorthorn cross, showing mostly Angus characteristics, an animal of which Judge Robert Miller said that a man was compelled to recognize, no matter to what breed he belonged. How will the champion this year compare with him?

formed was held in March 1889, and the first president was Mr. Robert Miller. The objects of the association have been to encourage the breeding of a better class of sheep, to assist

Farmers' Institutes and the Ontario Provincial Winter Fair. Representatives are on the boards of directors of the leading shows to look after the sheep interests at these exhibitions.

# SHORT COURSE IN STOCK AND SEED JUDGING

JANUARY 11th TO JANUARY 22nd, 1910



CLASS IN SEED JUDGING, JANUARY, '09

THIS COURSE IS ABSOLUTELY FREE. There are no fees and no examinations. Living expenses including railway fare (for the average student) should not exceed \$12 for a period of two weeks.

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CLASS IN STOCK JUDGING, JANUARY, '09

**HORTICULTURE**

**Canadian Apples in South Africa**

No fault is to be found with the barrels, half barrels and boxes, in which Canadian apples are packed for export to this country, reports Mr. J. A. Chesley, Canadian Trade Commissioner, Cape Town, but complaints have been made that the apples are frequently slackly packed, so much so that in handling the packages the fruit is more or less damaged, and is therefore unsalable. It necessitates, moreover, filling up and repacking before offering them for sale.

This condition incurs unnecessary expense, considerable inconvenience to importers, and should be discontinued as being very detrimental to the successful continuance of the Canadian apple trade in South Africa. Carelessness in packing should be studiously avoided in future.

**Cabbage and Cauliflower Growing**

At the recent convention of the Ontario Vegetable Growers' Association in Toronto, Mr. A. McMeans, O.A.C., Guelph, made a report on his investigations in cabbage and cauliflower growing in the United States. The average price to growers the past few years, who have not contracted, was \$5.50 a ton. Owing to the bad season this year the price went up to \$40.00 a ton. Planting is done with a special machine, two boys planting alternately. The machine waters the place where the plants are planted in then covers the wet spot with dry earth.

The large growers in the United State reduce expenses by conveniences in storage and shipping. Where possible railway sidings are run alongside storage buildings. Shrinkage in cabbage stored is as much as 25 per cent. up to April 1. The wetter the season of growth the greater the

shrinkage. In the shelf method of storage cabbages are put one deep, stumped down in rack. A large quantity of cabbage is used in the manufacture of sauer kraut, the consumption of which is not confined to the German element. At Saginaw the average crop is ten to twelve tons an acre, and the prices from \$6.00 to \$10.00.

**Vegetables at the Jordan Station**

A report on vegetable growing at the Jordan Experiment Station was made by Mr. H. S. Peart, the director, at the vegetable growers' convention in Toronto. There was a number of varieties and fertilizers tested, including varieties of corn, squash, melons, carrots, beets, tomatoes and potatoes. Over 4,000 crossed tomatoes were fruited, and two at least give promise of future usefulness.

Fertilizers caused a decided increase in yield of tomatoes and cabbage, where a complete fertilizer was used. In potatoes no decided results were evident. Corn, potatoes and phosphoric acid gave largest yield of corn. For onions, potash gave best and heaviest bulbs.

**Forcing Vegetables**

Mr. W. C. Waid, New Carlisle, Ohio, gave an address on 'Greenhouse Growing of Vegetables,' at the convention of the Ontario Vegetable Growers' Association. Development in this line has taken place during the last twenty-five years. As a rule vegetable growing under glass has been remunerative. Mostly lettuce, cucumbers and tomatoes are thus grown. An increase in the number of the vegetables forced is probable.

The soil in the forcing house is seldom renewed, but well-rotted manure is added each year. The speaker spreads manure over the soil and uses a sprinkler system of watering in order to extract the fertility for the use of the plants. Sterilizing the soil is sometimes necessary when disease has been present the previous season. The

overhead system of watering is best, but sub-irrigation has given good results with lettuce, and radishes. The higher the temperature, other things being equal, the more rapid the growth, but the greater the risk of disease. Good ventilation is a requisite.

**Growing Cherries in Ontario**

Mr. F. G. Stewart, Homer, discussed the subject 'Sweet Cherries for South-western Ontario,' at the recent fruit growers' convention in Toronto. He said that the soil for this fruit must be light and dry. The trees must be well cared for particularly in the matter of spraying. Plenty of spraying material should be applied. Use one barrel to about seven trees to keep the rot under control. Among the varieties recommended were, Governor Wood, Alton, Napoleon Biggareau, Black Tartarian and Windsor. Mr. C. E. Bassett, Fenwick, Mich., pointed out the absolute necessity for air drainage in the cherry orchard. He said that a free circulation of air will largely prevent fungous diseases.

In an address on 'Cherries for the Commercial orchards of Ontario,' Mr. A. E. Sherrington, Walkerton, said that sweet cherries are not a success in the northern part of the province. Yellow Spanish is the most essential. To prevent rot in cherries the trees should be sprayed in the spring before any growth appears with three pounds of bluestone to 40 gallons of water, cherry orchard. Just before the bloom opens, repeat after the blossoms fall and again 10 days later. The soil should be warm, dry and sandy. The Morello class can be grown on well drained clay loams. On sandy soils the trees may be planted 20 feet apart and on clay loams 25 feet. In pruning direct the growth by pinching when young. Some varieties recommended by the speaker were: Early Richmond, if well cared for and fed; English Morello, profitable but the tree is short lived; Mont-

morency, best commercial variety; Olivet, satisfactory.

Do cherries pay? This question was answered by Mr. Sherrington with figures. At 25 feet apart there are 70 trees to the acre which should yield 8 to 10 baskets a tree at 8 to 10 years of age, or 500 baskets an acre. At a net price of 60 cents per 11-quart basket, this gives \$300 to the acre. This shows that it is profitable to grow cherries of this class. Harvesting, the package and the market are the problems. Cherries can be shipped to the west successfully. They should be harvested when ripened and when dry as they will then stand up much better. Three or four pickings should be made from a tree. The fruit should not be handled but picked by the stem, clipped or pulled. Mr. Sherrington pays 12 cents a basket for picking. He said that the 11-quart basket is not the best package for cherries. We require a smaller package or a box which should be flat.

**Making Friends.**—The following extract from a letter received from Mr. John P. Bowen, Stanstead Co., Que., is indicative of the favorable manner in which Farm and Dairy is being received by those for whom it is intended: "Mr. R. P. Hurlbut, one of our subscribers has handed me one of your papers and it seems to be such a good one for our Canadian homes that I ask you to send it on to my address for one year from date. Enclosed please find \$1.00, the subscription price." Do you show your copies of Farm and Dairy to your friends? You can greatly extend the circulation of Farm and Dairy by so doing and receive for your trouble a cash commission or valuable premium, as you prefer.

One expedition plan for warming up and extracting sealed honey combs is to set the super with the combs in it over a wash boiler of boiling water. Have the boiler on the stove with a very small fire under it and the super covered with a bee quilt.—R. F. Whiteside, Victoria Co., Ont.

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The sure preventive of **Potato Blight, Tomato Blight**, and a valuable spray for many vegetable crops. **Potato Bugs**—One spraying with **Niagara Brand Lime-Sulphur**, together with a little Arsenate of Lead, has controlled the bugs for an entire season.

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**Niagara** is a perfectly prepared solution of lime and sulphur. Is always ready for instant use; is absolutely safe, and is cheaper and more efficient than Bordeaux or any other spray.

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This Trough is used to water cattle in stable. It allows a free flow of water in front of cattle. Made of galvanized steel. It is a clean, sanitary proposition. A sheet of galvanized steel is of order and you can install it yourself.

It is growing in favour everywhere. Prof. Day equipped the new stables at the Experimental Farm with it. Long lengths made in sections so it can be bolted and end to end to give free passage of water full length. Any length, only 25c. a foot.

Write for Catalogue of Barn Tanks, Stanchions, Water Bowls

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## POULTRY YARD

### Skim Milk Good for Hens

Do you recommend feeding hens all the skim milk they will consume? While it seems to be a great egg producer, it seems to affect the hens with scours. Can any feed be given with skim milk to counteract this effect?—N. B. Durham Co., Ont.

Yes, I don't think hens can have too much skim milk. If it scours them do not feed other animal foods such as meat, or scald the milk occasionally.—F.C.E.

### Queries re Hopper Feeding

Is the hopper method of feeding as spoken of frequently in Farm and Dairy, suitable for use on the average farm? Would it do to feed all kinds of grain in the hopper? And would not the birds become extremely lazy if fed in this way? What feeds are recommended for feeding by this method?—J. H. Peterboro Co., Ont.

Yes, if used judiciously. Where a farmer's flock has free run in the summer time, mixed grain placed in a hopper is a good way to feed. If the hens have a range upon which there is plenty of green feed, some shade and water there is no danger of the hens getting lazy and inclined to mope around the hopper.

We have had hoppers of grain before our hens constantly during the summer months and it is an exception to see hens eating from the hopper during the day time. They seem to know it is always there and roam far and wide for bugs, etc., but can always go to roost with a full crop.

Almost any kind of grains can be fed in this way though it may not be best to mix one grain they are fond of with a grain they do not like; they would waste the one trying to get the other.

As for winter feeding I am not sure that the same method can be practised. Hens do not get the same exercise when confined to the house and better results will be obtained if the grain is fed in the litter. The hopper might however then be used to advantage if it contained a dry mash, dry bran and a mixture of ground grains fed dry.—F.C.E.

### Roosts for Farm Hen House

I am thinking of remodeling our hen house. It is well provided with roosts and is on a good dry location. The roosts in it are old fashioned poles arranged one above the other on an incline, which I am told are not as satisfactory as other roosts. Would you advise putting in roosts with dropping boards in a farmer's hen house? What is the latest advice in regard to this matter and what space should be provided per hen?—D. L., Queen's Co., P.E.I.

By all means take out the inclined roosts; hens have a habit of wanting to get to the top and in doing so they do not care how many of their neighbors suffer. Have the roosts level. The round poles are inclined to crack and mites get into these and are then very hard to eradicate.

Make the roosts of 2 in. by 4 in. pieces, round the top edges. If they are not placed over the nests do away with the drop board. A drop board is all right if you can clean out every morning and the droppings do not freeze. If however you want to save labor have a drop board and clean out the soiled litter beneath the roosts once or twice a month.

Provide from six to eight inches of roost for light breeds and eight to ten for the heavier breeds.—F.C.E.

### Meat Ration for Poultry

What is the most economical method of providing animal or meat ration for laying hens? Can a leg of a calf be fed to chickens to better advantage than by hanging it up in a raw state where they

can pick at it?—L. M. Essex Co., Ont.

It depends upon conditions, if the flock is not so large but there is plenty of table scraps and milk and these are given in sufficient quantities there need be no anxiety about supplying more meat. If there is not enough of these then it had better be supplied and as a rule where no lones milk is used the cheapest and most satisfactory plan is to provide the commercial leaf scrap. This can be bought for 2 cents to 3 cents a lb. and under ordinary conditions it will not spoil.

A calf's leg if it does not cost more than 2 or 3 cents a lb. might be hung up in the pen providing the weather is cold. The trouble with feeding quantities of fresh meat is that it spoils so readily and in this way it does more harm than good. If it is convenient to feed calves, etc., during the winter it would be better to keep them frozen and cut a piece each day, or less often, and give it to the hens; they relish a fresh bit more than what has been in the pen some time and has become mused.—F.C.E.

### Selecting and Purchasing Stock

C. Murray Smith, Brant Co., Ont.

Whatever breed you fancy keeping, get some stock of a "laying strain," built up by breeding only from the best layers. There are good and bad laying strains in every breed and the strain means everything to the egg farmer. Get them from some reliable breeder who has the "bred for business" birds as distinguished from the breeder who raises birds for exhibition only, who raises maybe a couple of hundred chickens out of which he picks eight or ten possible prize winners by their fancy points and disposes of the balance as "utility".

THE TIME TO BUY

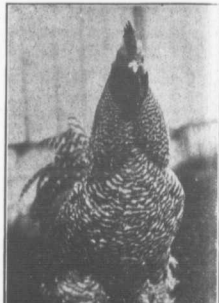
The fall and early winter is the best

time to buy, not only because the breeder is anxious to sell and will make prices right but also because you will have time to learn all about your birds before hatching time comes round again.

Time spent in studying the habits and wants of your flock are not lost time. Read up, there are at least five good Poultry Journals published in Canada, the Government issues pamphlets on poultry, to be had for the asking and those issued by the U.S. Government at Washington, have only a nominal charge of five cents each to citizens of foreign countries, Canada included.

### QUARANTINE NEW BIRDS

After getting your birds, quarantine them for a few days by themselves, dusting them with lice powder (one part crude carbolic to three



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"Many a dollar is lost by putting off until to-morrow. Send for catalogue to-day."

—The Philosopher of Metal Town.

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is superior in every way. It is most economical—is easy and quick to lay or erect, saving expensive labor,

and lasts a lifetime without continual repairs. Lightning, rain, wind or snow has no effect on "Metallic"—it is WEATHER, FIRE AND RUSTPROOF, the best material for all buildings.

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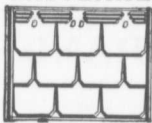
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## EASTLAKE



### Steel Shingles

### Too Narrow and Lacking Constitution

This bird is a pretty fair representative of what is to be seen in many farmers' yards; it is desirable to get them lower set with more width of body and head.

parts gasoline mixed in as much plaster of paris as will absorb it all, is good) and carefully watch them for any indication of disease before turning them in with any others.

By hatching only the eggs from your blooded hens and keeping over only the best specimens you will soon have a large flock of which you will be proud and purse proud as well.

### Poultry Pointers

Impure water or musty food will affect the color or the flavor of eggs.

The greatest need in the poultry work of to-day is strength and vigor in the stock.

Have you been keeping the surplus cockerels all summer simply for the sake of their society?

Have all the roosts on the same level and so arrange that they may readily be removed for cleaning. Do not fill the house full of roosts, but just enough to accommodate the fowls and let these be on one side of the house.

## POULTRY FOR SALE

Advertisements under this heading, two cents a word, payable in advance.

R. C. R. I. REDS, Partridge Wyandot or African goose-selling out, high class stock, for sale cheap, write me, I'll pay. Robert Smith, Celina, Ont.

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Special Clubbing Offer, FARM AND DAIRY and POULTRY REVIEW, One Year, for only \$1.10. Regular price of both, taken separately, would be

\$1.50. Subscribe now.

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Mention Farm and Dairy when writing.

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### The Dominion Grange Meets

The cement combine, the naval question, the telephone question, and several other public evils, were discussed with at the annual convention of the Dominion Grange held in Toronto on Wednesday and Thursday last. The Dominion Grange is a live body and both sides of public affairs are represented by its members. Many of its members are independent men, and the farm is their politics. It is the only real national farmers' organization in Canada.

#### THE NAVY QUESTION

The question as to whether or not Canada should contribute to Imperial defence by forming a navy, was hotly debated at the convention. The legislative committee in their report strongly condemned the proposal to create a Canadian navy. This report said in part, "that it would tend to destroy the harmonious relations that at present exist between Canada and her nearest neighbor. In any event," it argued, "such a step should not be taken until a majority of the whole of Canada had been taken." Several delegates expressed the view that the time had come for Canada to do something. After a warm debate, the report was sent to the committee for further consideration. The amended report of the legislative committee was adopted now reads:

"Our committee feels very strongly that all the Canadian possessions should be thrown into the scale in support of all movements which make for peace. So feeling, your committee views with grave misgivings the proposal to create a Canadian navy; a step which, there is reason to fear, instead of promoting peace, might tend to provoke war. It is therefore recommended that the Dominion Government be respectfully but most strongly urged not to embark on such a policy until after the question has been fully discussed by a Canadian parliament and formally pronounced upon by them at a poll held for this special purpose."

In discussing the amended report, Mr. R. E. Gunn, of Beaverton, said that the previous year, Sir Wilfrid Laurier had publicly stated that the Government would deepen the Welland Canal as soon as the money could be raised. He moved as an amendment that the Government be asked to take the \$20,000,000, which is to be spent on naval defence, and use it to enlarge and improve the waterways. This, he stated, would be an everlasting memorial to the peace that has existed for 100 years between the United States and Canada. The suggestion was endorsed by Mr. W. Chapman of Pickering, and adopted by the Convention.

A letter was read from Dr. Goldwin Smith, opposing the naval proposals, in which he said: "There seems to be little doubt that this new policy, which would involve not only a heavy expense, but a serious change in our national position and responsibilities, is new and startling to the mass of our people."

#### WESTERN DELEGATES PRESENT

Special interest was attached to this year's meeting of the Grange owing to the presence of Messrs. A. E. Partridge, D. W. McGill and R. McKenzie of the Grain Growers' Associations of Saskatchewan and Manitoba. An important decision was made favoring the formation of a Canadian National Council of Agriculturalists to comprise the farmers' associations. The objects were stated to be both social and political. It was felt that the farmers of Canada could secure many reforms only by united action. Grand Master, M. E. C. Drury, was delegated to attend the forthcoming meeting of the Saskatchewan Grain Growers in February with a view to enlisting their aid in the scheme.

Several resolutions were passed. One of the most important was a censure on the Dominion Government

for not enforcing the law relative to combines in restraint of trade, the recent rate of mercantile commission for special denunciation. A resolution against the continuance of bounties was especially directed against the iron and steel bounties, which expire next year. Other resolutions favored the creation of a provincial police system, public ownership of long distance telephone lines, and opposition to the leasing and subsidizing of private industries.

At the call of Master Drury for volunteers to go forth into the organization work of the Grange, several offers were made. The next week of their time to organization work. The Grange membership will likely show much increase during the coming season. The question of writing their members of parliament upon the question of the day was touched upon. Secretary Partridge said that the Grangers should take an active part in the nomination of their candidates for the House of Commons, then when the representative's supporters write him he has to sit up and think.

#### OFFICERS

The following officers were elected: Master, E. C. Drury, Crown Hill; Overseer, W. C. Good, B. A. Brantford; Secretary-Treasurer, J. G. Lethbridge; Alliance; Lecturer, R. A. Sutherland; Stroud; Chyl in, James Feltis, Newbridge; Steward, Peter Gilchrist, Gamebridge; Assistant Steward, M. E. Limburner, Tillsonburg; Gatekeeper, F. B. Warren, Gamebridge; Ceres, Miss E. Fletcher, Middleburg; Pegasus, Miss A. Philip, Whitby; Flora, Mrs. J. G. Lethbridge; Alliance; Lady Assistant Steward, Miss Robinson, St. Thomas; Executive Committee, Messrs. E. C. Drury, R. E. Sutherland, H. Glendinning, Manilla, J. E. Gunn, Beaverton, and J. G. Lethbridge.

Messrs. E. A. Partridge, W. D. McCuaig, and R. McKenzie, the three visiting delegates from the Manitoba and Saskatchewan Grain Growers' Associations, were elected honorary life members of the Grange.

### A Noted Jersey Breeder

(Continued from page 8)

first at Ottawa this year in the aged cow class, where she was shown against some Toronto winners, and, where, in the opinion of experienced judges, she is the finest cow in the West. When two years old, she gave 37 lbs. of milk in 24 hours.

Blue Blood's Fancy of Don, 188,800, which in past years has won many prizes, notable among which were four firsts, without a break at Toronto and London, is a member of the herd. This cow is an exceptionally heavy producer, she probably being one of Mr. Duncan's best milkers. If one year practically impossible, one is found with another, to get her dry. For a number of years she has milked almost continuously.

Fairy Blue is one of the long-distance workers. She has given over 40 lbs. of milk in a day, and has won prizes at many of the shows. She possesses an extraordinary fine vessel, her udder being much admired at Toronto this year. Her stock has proved to be some of the best that Mr. Duncan has raised.

All the stock on hand trace back to those famous cows that won at Chicago and at the St. Louis World's Fair, back to the blood of Merry Maiden and Brown Bessie, the former of which was champion at Chicago for the best cow of any breed in three tests and the latter in a 90-day test made 20 lbs 3/4 of milk in but day in seven consecutive days, and made more butter through the entire period of lactation than any other cow in the same test.

WINS OUT ON HOME-BRED STOCK  
Mr. Duncan's long and successful career in the show ring is well known to all lovers of the Jerseys, and to all

who follow at all closely Canadian shows, where dairy cattle are exhibited. Of the three herds exhibited at Toronto this year, Mr. Duncan won the most prizes on home-bred stock, capturing the Wanless Trophy for the Jersey breeder securing the greatest number of first prizes on home-bred stock.

Cows of great constitution and of heavy milking qualities are the kind that Mr. Duncan keeps. He emphasizes constitution and performance first, then considers the fancy points in so far as they can be united practically. As a result of this far-sighted policy, which is the only policy which has stood the test of years, his friends and neighbours who thought him crazy when he first went into the Jerseys, must now admit the wisdom of his choice.

It would seem that the Jersey cow is just now coming to the front. Her future is assured. There is a constant demand for all dairy cattle and since many are learning that the Jersey will produce the most milk and butter for the least amount of feed consumed, she is now coming into her own, largely owing to the fact that feed stuffs are gradually becoming dearer and must be considered in the economical production of dairy products. Mr. Duncan informs us that enquiries for Jerseys are being received in greater numbers than ever before and that the demand is great for good ones. Much of the wonderful progress that Mr. Duncan has made with Jerseys he attributes to the fact that he has bred for production instead of pedigree, although the latter has not been slighted.

Mr. Duncan invites a visit from all interested parties. "Montfield," the name by which the farm is designated, is most favorably known by many who have visited there. The place is well named, save in one particular, the draw-bridge is not taken in at night. A choice lot of stock, both bulls and heifers, bred by Fontaine's Boyle, is offered for sale. If you cannot visit the Montfield herd write Mr. Duncan, at Don, Ont., or call him by long distance telephone at Agincourt. This farm is one of those that is entered in Farm and Dairy's prize farms competition this year. It is certain to stand high among the winners.

### Horse Breeders' Association

Wm. Smith, Pres., Columbus, Ont.

The advertising of the Guelph Winter Show has been fairly liberal and the attention of the people has been especially called to the Horse Department of the Show. So much has the Horse Department been emphasized that the question is now being asked, "What part does the Ontario Horse Breeders' Association play in the Show to be held next week."

For a number of years, whilst it was well known that the Ontario Horse Breeders had a place in the Spring Show, it was more in name than in substance, until a number of prominent breeders asked for a separation and to be allowed to go their own way. This was mutually agreed on, it being believed that it would be best for all concerned. The outcome of it all after the different opinions had been harmonized was the organization of The Ontario Horse Breeders' Association.

This Association stands for the horse breeders of the Province of Ontario and is wholly controlled by them. Soon after its organization the association became much interested in the question of licensing stallions in the province and it gave a good deal of time and thought to a scheme that was felt could be made workable for the province of Ontario. So far it has ended there.

Other principal work has been the management of the Ontario Winter Horse Show. These shows have been very successful and have been held in the City of Toronto. But there always seemed to be a lack of interest by the city people aside from a few until it was felt that something should be done to have permanent quarters

### A Credit to the Shipper

The pure bred Yorkshire pig which I received from Farm and Dairy as a premium for securing a club of seven new subscriptions has just arrived. The pig was bred at Macdonald College, St. Anne de Bellevue, Que., and does credit to the breeders, and managers of Farm and Dairy. I find this a most generous premium to encourage the introduction of such a valuable instructor in agricultural matters as Farm and Dairy. I thank Farm and Dairy for its promptness in sending me this premium and it will be only doing a pleasant duty in aiding fellow farmers to subscribe to Farm and Dairy.—T. B. Rider, Stanstead Co., Que.

The Ontario Department of Agriculture has given liberally to enlarge the Guelph buildings and the Ontario Horse Breeders' Association's next show will be held there during the week of the Fat Stock Show, next week.

Time will tell whether the change was wise or not. Anyway the Association expects that this show will be the greatest horse show ever held in Ontario.

Renew your subscription now.

## INSURE



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IN FOAL MARES**

Why risk the loss of a valuable Mare or Foal or both of them when a payment of a few dollars would indemnify you for such loss should it happen?

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"Hole Edward day is the g heifer, y

A safe leave th manured Manur incorpor as a fer out on however ing const moisture gaining ting pro manure it is evid is same pur applied—

Querie

How mu of cement 39 feet x 5 is one foot will be erected as service Please give these Co. In order 10 feet high require 62 of cement part com not deduct A wall 1 carry a h rows wall Concrete more servi

**FARM MANAGEMENT**

**Spreading Manure in Winter**

Do you think it advisable to spread manure on the ground in winter? My neighbor makes a practice of hauling his manure out and spreading it on the land in winter, even on top of the snow. I am sure that he loses considerable of the value of it in the deeply colored water that runs from his fields in the spring. Is not this waste sufficient to pay for any extra cost in hauling out the manure when the land is in shape to have the manure incorporated with it immediately—J. B. Oxford Co., Ont.

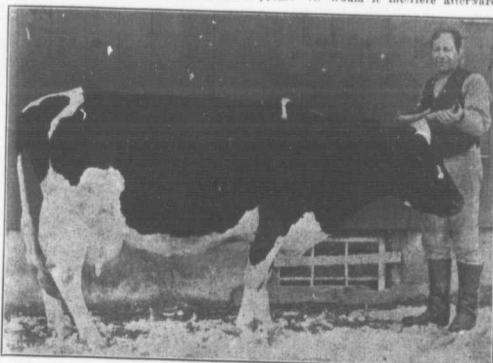
I consider it good practice to haul the manure out in the field as made all winter. The spreading of it broadcast on deep snow is possibly not quite defensible but it might be put in small heaps and spread in the spring as the snow goes off. As to losses of which you judge by discoloration of water in spring, I might say that said discoloration has been shown by investigation to be no good basis on which to estimate losses from manure.

bration of the barn caused by winds in time causes even the best of stone walls to shatter unless they are built very heavy, it is usually being customary to build stone walls under barns from 18 to 24 inches thick. Better results can be attained for work of this kind using only a 10 inch wall built from concrete than from 20 inch wall built from stone.

In Western Ontario the use of stone for barn foundations is a thing of the past. In nearly every section the barn walls during the last eight or 10 years have been built entirely from concrete. The walls be here from nine to 12 inches thick.—London Concrete Machinery Co., Limited, Henry Pockock, Manager.

**Questions Concerning Alfalfa**

As a subscriber to your valuable paper I should like to ask a few questions. (1) If alfalfa is sown in the fall, which would be the best month? (2) If in the spring, which month, and how many pounds per acre? (3) Would it, if sown in spring, bear a full crop for cutting the same year? (4) Would it interfere afterward



**A Great Holstein Matron, One That is a Distinct Credit to the Breed**

"Helena De Kol's De Kol," the 15-year-old cow owned by A. D. Foster, Prince Edward Co., Ont., as a 16-year-old gave 456.3 lbs. milk and 20 lbs. of butter in 7 days. She is the grand dam of Butter Boy Helena Pieterie, the world's champion 5-year-old heifer, which gave 555.9 lbs. milk in 7 days with her first calf. Mr. Foster is trying to have all his herd trace back to this great cow.

A safe plan to follow however is to leave the low parts of the field to be manured after the snow has gone.

Manure applied and immediately incorporated is probably worth more as a fertilizer than when left to dry out on the surface. The advantage however is not due to loss of fertilizing constituents but rather to lack of moisture to cause an immediate beginning of the breaking down or rotting process in the soil without which manure is useless. This being the case it is evident that plowing when manure is wet from rain will serve the same purpose as plowing when freshly applied.—J. H. Grisdale.

**Queries re Cement Barn Wall**

How much sand and how many barrels of cement will be required to build a wall 38 feet x 59 feet x 9 feet, one for a barn? Is one foot thick enough for a thick to be erected upon? Do you think concrete as serviceable as stone and as cheap? Please give any other advice.—J. F. Frontenac Co., Ont.

In order to build a wall 30 by 50 by 9 feet high and 1 foot thick it will require 62 yards of gravel and 52 yards of cement using the proportion of one part cement to eight parts gravel, not deducting anything for openings. A wall 1 foot thick is sufficient to carry a barn 50 by 80 without any more walls.

Concrete for barn walls is much more serviceable than stone. The in-

corporating the same ground for root crops—W. M. W. Peel Co., Ont.

1. It is not safe to sow alfalfa in an average season later than the month of July in the County of Peel, Ontario.

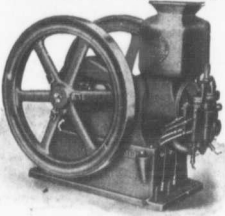
2. Sow in the spring any time after the ground is warm. Probably the best results are obtained by sowing it in the latter part of May and early in June, if sown without a nurse crop. Sow from 15 to 25 lbs. an acre according to firmness of the seed.

3. No.

4. The roots are large and strong and are hard to cut with the plow share, they soon afterwards however decay, making the soil very friable; and they add considerable fertility to the land. There is no danger of the roots staying in the land as in the case of June or couch grass.—Hy. Glendinning.

**The Two-furrow Plow.**—For some time Farm and Dairy has spoken very favorably of the two furrow plow, so the writer decided to try one of the Cocksbutt Beaver gangs. We have found it far ahead of expectations. We have heavy clay, yet we can do better work with three horses and one man than four horses and two men with walking plows. I have tried it on second plowing where the land was very uneven and it did good work. D. N. Anderson, Lamilton Co., Ont.

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TO THE FARMERS AND OTHERS

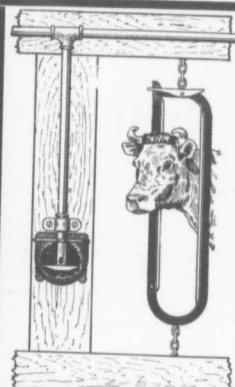


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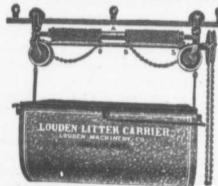
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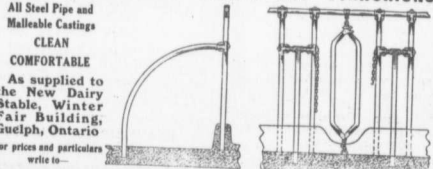
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## FARM AND DAIRY AND RURAL HOME

Published by The Rural Publishing Company, Limited.



**FARM AND DAIRY** is published every Thursday. It is the official organ of the British Columbia, Manitoba, Eastern and Western Ontario, and Bedford District, Quebec, Dairy-men's Associations, and of the Canadian Holstein, Ayrshire, and Jersey Cattle Breeders' Associations.

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

### CIRCULATION STATEMENT

The paid subscriptions to **Farm and Dairy** exceed 7,000. The exact circulation of each issue, including copies of the paper sent to subscribers who are but slightly in arrears, and sample copies, varies from 8,000 to 12,000 copies. No subscriptions are received at less than the regular rate. Thus our mailing lists do not contain any dead circulation.

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

### OUR PROTECTIVE POLICY

We want the readers of **Farm and Dairy** to feel that they can deal with our advertisers with our assurance of our advertiser's reliability. We try to admit to our columns only the most reliable advertisers. Should any subscriber have cause to be dissatisfied with the treatment he receives from any of our advertisers, we will investigate the circumstances fully. Should we find reason to believe that any of our advertisers are unreliable, even in the slightest degree, we will discontinue the publication of their advertisements. Should the circumstances warrant, we will expose them through the columns of our paper. Thus we will not only protect our readers but our reliable advertisers as well. All that is necessary to entitle you to the benefits of this Protective Policy is that you include in all your advertisements the words, "I am your ad. in **Farm and Dairy**." Complete details will be sent to us as soon as possible after reason for dissatisfaction has been found.

## FARM AND DAIRY PETERBORO, ONT.

### HOLSTEINS AND JERSEYS AT OTTAWA

How is it that at that excellent institution, the Central Experimental Farm, Ottawa, the two great breeds of dairy cattle, Holsteins and Jerseys, are not represented in the dairy stables? They should be. Their absence detracts materially from the interest many dairy farmers take in the farm when they visit it, as they do, each year by thousands at the time of the annual farmers' excursions. It detracts from the value of the annual Government reports covering the work of the dairy herd at the farm. It is an injustice to the breeders of this class of cattle.

The three greatest breeds of dairy cattle in Canada are the Ayrshire, Holstein and Jersey. These are the breeds whose merits are being most keenly discussed by the dairy farmers of the country. There is a great thirst for information about them. At present equipped, the Experimental Farm at Ottawa is unable to furnish any statistics that will enable the farmers of Canada to gain reliable in-

formation about the comparative value of these breeds.

For instance: A brief study of the last annual report of the dairy herd at the Guelph Agricultural College shows that the average cost of the feed of twelve Holstein cows was \$45.10; of seven Ayrshires, \$38.95, and of five Jerseys, \$36.13. The average profit above the cost of feed—for the Holsteins was \$34.59, for the Jerseys, \$30.96, and for the Ayrshires, \$30.40. These figures are taken roughly and are interesting only as far as they go. When, however, we turn to the report of the Central Experimental Farm, we find the average profit—figured, however, on a different basis—of nine Ayrshires was \$40.18, but we can not gather any information about Holsteins or Jerseys. This is a lack that has been felt before and that will be felt more keenly as the years go by unless it is remedied immediately.

If there is not room in the present building at the Ottawa Farm to enlarge the herd, then the buildings should be extended. The cost of the cattle required, and even of enlarged stables, would be covered by a few thousand dollars, and would be a mere bagatelle beside the millions of dollars the Dominion Government is planning to spend on a navy. The breeders of Holstein and Jersey cattle would do well to take up this matter with their members in the Dominion House of Commons and through their respective breeders' associations.

### LICENSING STALLIONS

Why does the question of licensing or inspecting stallions in Ontario hang fire? It is now over three years since this question was first discussed. The special investigation that was made of the conditions of horse breeding in Ontario furnished sufficiently complete information upon which conclusions might be based. The matter has been laid before the Committee of Agriculture in the Ontario Legislature. Resolutions favoring action by the government have been passed at public meetings that have been held throughout the province. The project has been discussed and approved of at both Ontario Winter Fairs. And still no evidence that the government proposes to act is apparent.

The adoption of a stallion inspection and license act needs to be taken up with renewed vigor. The investigation carried out in 1906 confirmed the general belief that the condition of the horse breeding industry in this province requires some direction. Our horse breeders must keep pressing the matter vigorously. As long as they are content to ask mildly for what they want, they can count on being put off from year to year. Our farmers are not going to object to this legislation, for they know that it will benefit them.

### HEAVY HORSES WANTED

Count the number of devices that have been invented for saving horse labor and with every new one that has come along, it will be seen that horses have become scarcer, more in

demand, and have realized higher prices. Our country is growing and, therefore, more horses are required to move its commerce. The remarkable influx of settlers to the West has greatly increased the demand, each settler requiring at least four horses, for it takes that many to make a team in that part of the country.

More horses are being raised in Ontario than ever before, but yet, we need more. Most of our farmers would find it profitable to keep three or four breeding mares at least. As it is to-day, any kind of a team is snatched up quickly, ordinarily good ones bringing easily \$400 a pair. The outlook for heavy horse breeding was never better. Those farmers in a position to do so should take advantage of prevailing conditions and breed more of these horses that are being so eagerly sought for and that realize such handsome returns.

### THE WINTER FAIR

The great extensions and improvements that have been made to the buildings of the Guelph Winter Fair, should ensure next week's exhibition being the most successful yet held. While there are some who have been apprehensive that the addition of the exhibit of horses might detract from the other features of the Fair, there is but little danger of this fear proving to have been well founded. The addition of horses will serve to draw larger crowds to the fair, and in this way will benefit all sections of the exhibition.

While there were many who believed, and who probably still believe, that Guelph is too small a place for the holding of such an exhibition as the Winter Fair, and who would have preferred to have seen it moved to a centre like Toronto, it is now the duty of every person to give the exhibition, in its enlarged quarters, their loyal support. It must be given a fair trial under these new conditions before it can be condemned.

The program of addresses that has been prepared for this year's meetings, ensures the holding of gatherings that should be unusually helpful and instructive. Every farmer who can possibly afford to do so, should endeavor to attend this exhibition.

### THE SHEEP INDUSTRY

In support of their claim that the sheep industry in Ontario has not received due recognition from the Ontario Government, some leading sheep breeders have evinced a tendency to claim that the dairy interests have received more than their share of government support. It is a poor line of effort that endeavors to profit by pulling others back.

During the past year, action has been taken by the Ontario Department of Agriculture, assisted by the Sheep Breeders' Association, to attempt to revive the sheep industry. The method chosen is the establishment of illustration stations in eight counties of this province. This work is commendable, the object of it being to show that there is good profit in

sheep raising to the ordinary farmer and with ordinary grades of sheep.

If more of this kind of assistance is needed or other work required to build up the sheep industry, it is up to the sheep men themselves to see that they get it. The dairy interests have received what assistance has come their way through organizing and going directly after it. They have shown the need for the desired assistance, and that the money granted would be well expended. Sheep breeders can have their wants supplied in the same manner, i.e., by stating their case, and making known their wants. The sheep industry is such an important one to this province that the government will not be apt to hesitate long to extend to it any further additional assistance, once the need for it is demonstrated.

### A COMMENDABLE DECISION

The Ontario Minister of Agriculture, Hon. J. S. Duff, is to be commended for having granted the request of the united counties of Northumberland and Durham, to have a survey made of the thousands of acres of waste land in these counties, that are suitable only for the purposes of re-forestry. The need that this land shall be re-planted with timber is freely admitted. The questions that now remain are, how can this be done to the best advantage, and what will be the probable cost? Nothing but the taking of such a survey can supply the answers to these questions. Once the information that will be brought out by the survey has been obtained, it will be possible to deal with the questions in an intelligent manner.

Warden A. A. Powers and Reeve A. A. Colwell, the Chairman of the Committee of Agriculture, deserve credit for the manner in which they have pushed this matter. They were the first to act upon the suggestions made by **Farm and Dairy** that the county council should approach the Government to have this land re-forested, and they have pushed it intelligently and effectively ever since. Now that they have arranged for the holding of a series of meetings throughout the municipalities in the two counties, there is an assurance that the farmers who are interested will soon have a better realization of the importance of the problem that confronts them.

Before this land can be re-forested, the counties interested will have to agree to assume their fair proportion of the cost. It cannot all be shouldered on to the Provincial Government. The careful, intelligent manner in which the whole affair has been handled to date affords strong indication that it will be pushed through to a successful conclusion. How is it that the other counties in Ontario that also have immense areas of waste land, are not making a move in the same direction?

Have you noticed how universal is the expression of opinion among the contributors to **Farm and Dairy**, that the time has come when legislation is required, that will compel careless farmers to cut the sow thistle before it comes to seed?

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**O. A. C. No. 21 Barley**

The average annual yield of barley per acre in Ontario for the last 10 years was 22.5 per cent. greater than that of the 10 years previous. The area devoted to barley in Ontario has during the same period been approximately doubled. These large increases in area and yields per acre are due to a considerable extent to the introduction of the Mandcheuri variety by the Ontario Agricultural College and to the distribution of the same through the medium of the Experimental Unit.

Notwithstanding the fact that the Mandcheuri variety gives greatly increased yields over the common six rowed barley, it has been found that even this high yielding variety, Mandcheuri, was susceptible to improvement. In the spring of 1909, 3922 grains of the Mandcheuri barley were planted by hand at equal distances apart by the experimental department of the College. When the plants were ripe, they were carefully examined and 35 of the most promising ones were selected and threshed separately. In 1904, 33 separate lots of barley were grown from the plants selected the year previous. From that time forward only the best strains were grown in the tests as follows: fourteen in 1905; eight in 1906; seven in 1907; and three in 1908. In one instance, over 40 bushels of barley were grown in 1905 as the product of one seed planted in the spring of 1903.

Of all the selected strains, the one known as the "O.A.C. No. 21," has made the best record. It has given considerably better results than the Mandcheuri variety from which it was originated, in yield of grain, in freedom from rust and in both length and strength of straw, in the experiments at the College and also in the co-operative tests throughout Ontario.

Since this "O.A.C. No. 21" barley is becoming better known, there is springing up a great demand for it. Last spring, those farmers who had kept this special barley pure had a large demand for seed from their neighboring farmers and in some instances, they realized as high as \$1.50 a bushel for it. Farm and Dairy has been fortunate in securing an option on a quantity of "O.A.C. No. 21" barley. It is offered to the public under the conditions to be found in an advertisement on this page.

If you grow barley, it will pay you to secure seed of this new strain. The opportunity now before the readers of Farm and Dairy is a rare one. Prompt action will be necessary on the part of those who participate in this great offer. The seed offered was produced by a reputable grower in Western Ontario and will be delivered securely bagged, f.o.b., at Brantford, Ont.

**Pioneer Clydesdale Establishment**

(Continued from page 6)

Twenty head from this establishment will be exhibited at the Winter Fair, Guelph, next week. They will compete in all draft classes both for imported and for Canadian bred Clydesdales. A team of geldings will also be exhibited.

The stock on hand at the barns are: Four aged 4-year-old stallions, headed by Black Irony, the great son of Everlasting—perhaps one of the greatest sons, as a breeder, of Baron's Pride; three 3-year-old stallions, one by Silver Cup, one by Baron O'Bucklyvie, the other by Durbar—all sons of Baron's Pride; six imported 2-year-olds, four got by Baron O'Bucklyvie, one by Baron O'Dee and the other by Baron's Pride; three yearlings got by Benedict, Blacou Sensation and At-

tractive Prince respectively; Queen Minnie, a mare that has been the winner of over 20 first prizes and seven championships in Scotland, that was first at Toronto as a three-year-old and first and champion at Ottawa this fall. These comprise the imported stock. A number of Canadian bred horses are also in the stable. These are headed by Baron Acme, the winner of both first and championship at Toronto and at Ottawa this year. Besides there are a number of Canadian fillies, and a team of geldings previously mentioned, a team of which will be shown at Guelph.

**OTHER STOCK FEATURED**

Horses are not the only stock featured. Both Mr. Richardson and Mr. Smith have each a fine herd of Short-horn cattle. Mr. Smith has a flock of pure-bred Cotswold sheep. A number of breeding mares and young stock are also a feature of each place.

Any of the stock on hand is for sale at prices that are reasonable. "Our aim," said Messrs. Smith & Richardson "has always been to give a customer value for his money and the best of satisfaction."

More heavy horses should be raised in Canada. The demand is far in excess of the supply. No greater argument could be given as to why anyone should go into the breeding of heavy horses than that which stands out in the fact that the price and demand of even ordinary work horses, especially if they be heavy and good ones, realize for them most favorable prices. Farm and Dairy readers in need of Clydesdales would enjoy a visit to the farms of Messrs. Smith & Richardson. The stock they have on hand is worth going some distance to see and it will stand close inspection.

**Lump Jaw in Cattle**

Dr. David Roberts, Wisconsin State Veterinarian, touching lump jaw in cattle, says:

"This disease is due to a fungus which is usually taken into the animal's system in feed consumed. Lump jaw is liable to affect the glands of

the throat or the bones of the head. It is thus not advisable to keep an animal thus afflicted lingering in a herd.

"On the other hand it is advisable to either treat such an animal or kill

it, as such animals invite diseases into the herd and then spread same throughout the entire herd, owing to the fact that they are so reduced in vitality that they have no resisting power."



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Elsewhere on this page is given a brief history of this recently originated strain of the Mandcheuri Barley. Read it. Then consider this exceptional offer.

For only TWO New Subscriptions to FARM AND DAIRY, taken at \$1 a Year, we will give ONE Bushel of "O.A.C. No. 21" Barley

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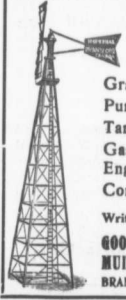
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## Creamery Department

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

### Checking Creamery Weights and Tests

Hy. Glendinning, Ontario Co., Ont.

Complaints are frequently made by patrons of creameries about the test they receive monthly for butter fat. They do not understand why the test varies from month to month if the cream screw in the separator is always set at the same place. There are various reasons for the variation of the amount of fat in the cream; such as temperature of milk at time of skimming and the speed at which the machine is run.

Our experience teaches us that the apparent thickness of the cream is not to be relied upon as an indication of its richness. Sometimes a thick cream does not test as high as a sample that is thin.

Five years ago we started to send cream to the creamery and we adopted a plan then of keeping "tab" on it that we have followed ever since. We have a book in which we keep a record of the cream and a bottle for holding a sample of the cream. When the cream hauler enters the weight of the cream in his book he does the same in ours. When he puts a sample in his bottle he puts a like sample in our bottle.

At the end of the month we make a test of this composite sample of cream with our own Babcock Tester. We are thus enabled to check the weight and test made by the butter-maker at the creamery. Any variation of test has been of a trifling character. At times we have been surprised when we made a test to find that it was not higher, judging from the appearance of the cream, but when the returns came in from the creamery we found that the tests corresponded.

I can heartily recommend this plan to my brother farmers as it tells them what is satisfactory.

### What is Cream?

What is cream? The question is propounded by the chief analyst of the Dominion, Mr. McGill, in a Bulletin in which he gives the results of an examination of 64 samples of cream collected in various parts of the Dominion. The analysis shows that the people of Canada are buying as cream a milk product varying from 42 to 11 per cent. of butter fat, and Mr. McGill submits that it is high time the question should be definitely answered and a standard for cream fixed by law.

It would appear from an excerpt from the food report of the local government board that while they have no standard in Britain an official inspection of creameries shows that the British gets a cream that is at least 21 per cent. butter fat. The United States standard is 18 per cent. This is the standard which Mr. McGill recommends. Thirteen of the 64 samples analyzed at the department are below that moderate degree of richness.

The chief analyst's researches into the Canadian cream supply have disclosed the unwelcome fact that leanness is one of the undesirable characteristics of this commodity. Adulterants are used and frauds practiced.

Mr. McGill suggests that no injustice will be done to the dealer and that a much-needed protection will be afforded to the consumer, if the

following definition of cream be made legal.

1. Cream is that portion of milk, rich in milk fat, which rises to the surface of milk on standing, or is separated from it by centrifugal force; is fresh and clean, and contains not less than 18 per cent. of milk fat.

2. When guaranteed to contain a higher percentage of milk fat than 18 per cent., it must conform to such guarantee.

3. Cream must be entirely free from gelatine, succrate of lime, gums, or other substances added with a view to give density, consistency or apparent thickness to the article.

4. Cream must contain no preservative of any kind; nor any coloring matter, other than that natural to milk.

5. Evaporated cream, clotted cream, condensed cream, or any other preparation purporting to be a cream (except ice cream) must conform to the definition of cream as given above, and must contain at least 25 per cent. of milk fat.

### Home Butter Making

Frank Webster, Victoria Co., Ont.

One thing absolutely necessary in making a first-class butter is a ration of which no portion will impart any objectionable flavor to the butter. Turps or rape are not a safe feed. Cows that have the run of a woods in early spring are likely to give tainted milk and often a rank growing piece of clover will taint the butter as well as giving a gassy cream that will not churn quickly.

Good butter can be made from any breed of cows if they are given proper care. Some breeds will make a higher colored and a harder butter than others. Butter made from Jerseys is sometimes so hard in winter as to be almost a fault, though it will stand shipping in hot weather better than a softer butter.

The feeds used will often make a difference. Some feeds have a tendency to make butter of inferior texture than others. Oil cake meal is noticeable in this respect, but at the same time it is palatable and nutritious and it leaves no objectionable flavor.

An essential in butter making is cleanliness. The nearer we approach absolute cleanliness in our dealings both with the cows and with their product, the higher our butter will score.

### CLEAN UTENSILS

The separator, pail, and all utensils used in handling the milk or cream should be perfectly clean. If cream is separated at the barn it should be removed at once to the house. A cream testing about 35 per cent is quite as good to work with. Be sure that the can, or whatever is used for ripening cream in has no rusty places in it. The action of the acid, developed in the cream as it ripening, on the exposed iron will give undesirable flavors.

Do not add fresh cream to a butet until cold and then stir or mix thoroughly. Cream should not be churned for 12 or 15 hours after the last lot has been added. Do not keep the cream too long before churning or it will become over-ripe or too sour. It is a question if a real good article can be made, under most circumstances, unless cream is churned twice a week. In cold weather, the cream in this length of time may possibly not be very sour and if there is only a small quantity left over, it is better to keep it longer; but then often the butter will have a peculiar old or bitter flavor, or at least lack that delicate aroma and taste, characteristic of good butter, which is so hard to describe but yet appreciated by so many.

To ripen the cream in cold weather one may add some of the buttermilk from a previous churning, if of good flavor, and also heat the cream, if the amount is not large enough to have a vat for the purpose, and still too large to handle easily, a part of it may be placed near the fire and well warmed. This when thoroughly mixed will make a better batch, and will warm it several degrees. It would be hard to describe when the cream is just right for churning. It has a peculiar satiny appearance, a rather pleasant acid smell, and it will be firm or thick enough that the paddle or stick used for stirring and mixing will stand upon it.

Butter should come in from 20 to 45 minutes. If it takes much longer, something is wrong. Perhaps the cream is too cold; it will often swell a lot in the churn if too cold. If all the cows in the herd have been milked for a long time, the butter may be hard to get out, or fresh cows occasionally coming in will help wonderfully in making butter come in a reasonable time. Dairy thermometers are not always accurate, but the thermometer is wrong. Churn at different temperatures until the proper temperature that will give the best results is found. This will be when the butter comes firm enough to work nicely and still soft enough to make the churning long.

### AFTER THE BUTTER COMES

When the butter has got to that granular stage in the churn where it is going to pass together, drain off the buttermilk and wash with lots of water, the water being warmed if needed. Then remove the butter to a worker. The amount of salt to add, will depend on the market you are selling to, some markets demanding more than other. The salt should be more rather light for some places and is about what is wanted in others. Work the salt in thoroughly. Make the butter a tidy mass on the worker about the depth of a pint. Your butter papers should be of good quality and should have the name of your farm and your address printed on them. Wet the paper by dipping them into clean water. Place them conveniently on the table, as many as you can, and when the butter is printed place each print on its own paper; wrap neatly and the process is completed.

At "Elmico Dairy Farm," our butter is all marketed in this form. We ship it all to one person, the butter being put up in boxes holding 70 prints.

The Right Kind of a Pig—It only took me a short time to get the name new subscriptions at \$1 each for Farm and Dairy, and as a premium I was sent by Farm and Dairy a setting of eggs, a Yorkshire pig, a received pig from Mr. Hervey Gleason, of the pig from Mr. Hervey Gleason, of Manilla, Ont., and an more than pleased with it. I think I am well repaid for my work. The pig is a fine healthy animal and the right kind of a pig to breed from.—James Ward, Victoria Co., Ont.

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FOR SALE—Cheese factory, with every butter plant, all in good condition. Good stock of butter. Will sell for cash or on credit, as owner has other business and is leaving the province. Best & Farm and Dairy.

## Cheese Department

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

### Care of Composite Samples

J. F. Singleton, Kingston Dairy School

Where paying by test is in vogue, small sample bottles are required, one for each patron. These must be labelled. By covering these labels with shellac, they will last indefinitely. Each bottle must have a stopper. Some use old tin stoppers. These are not satisfactory. The stopper must be air tight. Cork is not good as it absorbs the moisture and fosters the growth of mould. Turned hardwood will be found to be quite satisfactory. Glass stoppers are still better, their only drawback being that they are expensive.

A portion of the delivery from each patron is taken each day, kept in its respective bottle and tested once a month. The length of time that the samples may be kept depends upon the preservative used and the care given the samples. Some preservatives are much better than others. Potassium permanganate is often used is cheap but of little use. Its cheapness is about all that there is to recommend it. Corrosive sublimate is good and is a good preservative but it is poisonous. It can be used alone though it is better to have some coloring added to it, which will show that the milk in which it is put is not used for sale. Dairy Specialty houses put up preservative tablets, which are very good. They consist for the most part of corrosive sublimate with some coloring matter.

Sometimes mould will form on the inside of the bottles where they are tested only once a month. This mould can be prevented by using a little formalin, about five drops of which should be put in after the first sample has been taken. It is useless to put in the formalin before the first sample as otherwise it will evaporate. It is well to keep the samples away from the light. When exposed to light they are inclined to get tough. They must be kept well stonpered.

In order that I might ascertain whether or not a composite sample deteriorated, I made an experiment, of a particular sample that tested 3.8. It was set on a shelf in an ordinary curing room. On being tested occasionally up to three months from the first test, it gave the same result, 3.8.

### Dairy Instruction Work in Renfrew County, Ont.

R. Elliott, Dairy Instructor, Carp

It is a pleasure for me to meet the dairymen of Renfrew and to present my sixth annual report. I began work the first week in May, going over all the cheese and butter factories in my district. The butter factories were added this year, of which there were five. I had altogether 36 cheese and five butter factories. There are 1,467 patrons sending milk from 10,905 cows to the cheese factories; an average of 7.5 cows a patron, and 310 patrons sending milk from 2,800 cows to the butter factories.

While the milk was delivered to the cheese factories in better condition this year than in past years there was some that was over-ripe and off in flavor. There is a direct loss by furnishing milk of this kind as it takes more to make a pound of cheese and the cheese are not of as good a quality. The loss on an average in the whey went from .17, where milk was fairly good, to .27, where it was over-

ripe or off in flavor; a direct loss of .10.

### REVIEW OF VISITS MADE

I made 42 all day visits at cheese factories and 30 visits at butter factories. I also made 165 call visits at cheese factories lasting from one hour to one half day. When making all

patrons and saw at factories 307 and gave instruction on care of milk, sanitation, etc.

The cream as received at the butter factories had an average of 26.5 per cent. butter fat and an acidity of 41.8 which is high in acid, but in general fairly good in flavor.



A Building that is Representative of the Smaller Cheese Factories in Eastern Ontario township, Prince Edward Co., Ont. The output of the factory is about 60 tons of cheese per season.

day visits I usually tested for adulteration or made a fermentation test. There were 850 Babcock tests made and 107 fermentation tests. I only found seven per cent. off flavor and that decidedly bad. I had six adulterations, three skimmed and three watered which were reported and dealt with in the usual way. I visited 209

In my district there are three factories making whey-butter and while it is fairly satisfactory I believe there would be more direct gain if the whey was properly pasteurized and delivered to the patrons sweet. I go to two factories where the whey is pasteurized and I have found that before heating the whey showed on the burrlet

from 140 to 200 per cent. acid, after heating and properly cleaning the whey-tubs, from 27 to 30 per cent. or only from two to five per cent. more from when it was dipped, after standing 24 hours in the vat. One of these factories stopped pasteurizing when the weather got cold and the whey then showed 140 per cent. acid.

The cheese factories are all in good condition. To sum up generally, it will be necessary that some of the producers pay more attention to the production of their milk, cooling, etc., and that the whey be returned in a purer, sweeter condition before the best results can be obtained. I would like to thank the patrons, manufacturers and makers for their willingness to carry out suggestions I made and I believe that when the improvements that I have recommended are carried out this winter that the factories will be in better condition than ever before.

Last year \$29,000 worth of Canadian butter and cheese were exported to be Orange River Colony, South Africa.

Mr. Wm. Montgomery was unanimously elected representative for the Eastern Ontario Dairymen's Association at the district dairy meeting held at Moose Creek, November 24th.

When figuring up factory proceeds on the basis of the test, the milk or cream received from each patron should be totalled for the period covered by the test, for only in this way unless the weights and tests were uniform each day, would it be fair.—J. F. Singleton, Creamery Instructor, Kingston, Ont.

## LET US START YOU TOWARD BETTER PROFITS

BETTER profits—less work—more pleasure—that's what a cream harvester will accomplish for you and every man who keeps four or more cows. A good cream harvester saves labor, saves time, and most important of all, gets all the cream out of the milk.

It is one of the wisest investments you can make. Dairy products, made from separated cream, possess a quality impossible to obtain when old-fashioned, skimmed cream is used. Besides, separator skim-milk is fresh and sweet and makes an excellent feed for calves, pigs and chickens. A little corn meal added to the skim-milk gives it almost the feeding value of whole milk. There are other reasons why you should use a separator. You won't need to haul heavy loads of whole milk to the creamery and return with heavy loads of stale, unpalatable (perhaps contaminated) skim-milk, totally unfit for feeding.

## I. H. C. Cream Harvesters

are little machines, but they are doing big things for the advancement of farmers who keep milk cows. They will do big things for you if you keep cows. They will lighten your labors. They will make your work more agreeable. They will enable you to keep more cows without additional work. They will avoid waste. They will start you in the way of better profits.

I. H. C. Cream Harvesters are made in two styles—the Dairymaid, a chain-drive machine, and the Bluebell, a gear-drive machine. Each is made in four sizes so that you will find just the size to meet your needs. Our local agent, handling I. H. C. Cream Harvesters, will cheerfully give you all the information you desire.

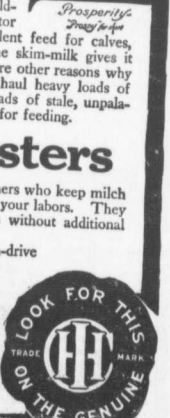
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YOU have not fulfilled every duty, unless you have fulfilled that of being pleasant.—Buzton.

### The Mountains of Peace

By Julia Truitt Bishop  
(Concluded from last week)

NO—decidedly not a commonplace country. When the little old woman was in bed that night, David Marner came stealing around the side of the house and leekoned Miss Forester out of the front gallery, with a ghostly forefinger. Under its influence she followed him to the gate, and the old man took off the flopping hat and peered into its depths awkwardly.

"Ye see—she was raised in a mountainous country," he stammered, "and she couldn't seem to git use to this—" he waved an arm toward the flat fields, lying misty in the moonlight. "An' when the two boys died, an' things began to go bad with her on account o' sickness, she was always beggin' for the mountains. New I never have saw a mountain. Ye never would believe that, would ye? Jes' these plain o' fields, all my life. An' was longin' for the mountains an' a cryin' fur' 'em, jes' like a baby. An' I couldn't go to no mountain! The nearest one is three hundred miles away, I reckon. An' likewise, I couldn't stan' her grievin' that-a-way. So I jes' let on like I'd bought a place up in the mountains, an' that she'd feel at home. An' then I loaded over, an' we had on to wagons, an' us on top o' 'em, an' I driv aroun' the country pretty permise-us, campin' out at night, an' at last I come back home with her right in the midst of the mountains, an' in the mountains we've been ever since. An' I hired Hannah because she was dumb, an' I ain't never let a neighbor come on the place, sense that day. So there now—ye see how it is. I thought ye might wonder how it was—not knowin'."

He furnished the explanation shamefacedly, as though realizing that it was not much of a story. Miss Forester held out an eager hand. "I be your pardon," she cried, and then in the same breath, "Thank you so much!"

And the old man shook hands and fled. The explanation having been offered and accepted, David Marner blossomed out in unexpected confidences.

"How's the air been offer o' Bal' Knob?" he asked innocently, when he came in from a blazing day in the fields. "Feel that mountain breeze? Right offer the shoulder of o' Moses! I tell you, wife, it's mighty pleasant to set here in our own back gallery and feel the mountain air a blowin' in, so fine an' free."

The old woman always listened, her face raised toward the unseen mountains.

"It's been a mighty good thing for me, jes' gettin' back to the mountains," she sighed contentedly. "I don't think I ever could 'a' been at-

isified in that flat country. An' then I always wanted you to see the mountains. Think how it 'ud 'a' been if you'd 'a' mised all this!"

As the days passed, and David gained confidence in the guest, he expanded more and more. People passing along the road at the further side of the field saw the "city girl" with



Dining Room in Mr. A. Willerton's House, Neepawa District, Manitoba. Note the large airy room, and the pleasing arrangement of the furnishings. It is easy to imagine the home life on this farm.

a huge straw hat shielding her from the sun, perched on a fence or on a stump near where he was working or going up and down the rows beside him. They were discoursing largely of cabbage and kings and everything in between, and the girl's gay laughter rang out as he talked. But in the house his conversation ran mostly in one direction. It was light talk for the greater part, his eyes watching for the success of it on his wife's face.

"I bet you didn't know all these mountains we kin see from here had names, did ye?" he asked, standing at the edge of the "black gallery," a fire-red sunset making the gaunt figure stand out like the Three who walked through Nebuchadnezzar's seven-times-heated furnace. "This one o' Bal' Knob—this one that starts from right behin' the barn. My, but she's a piter, o' Baldy is! There's o' Moses, an' the one next is Aaron—an' roun' to the front o' the house is o' Bimelech an' o' Lijer; an' that whal-in' big one 'trest there is named for a book—the only book I ever read through, 'lessen it was the Bible,

That's o' Ivanhoo. I tell ye he was a jim hin, that feller Ivanhoo!"

Miss Forester watched him gravely the next day from her perch on the fence—a battered old weatherbeaten figure, toiling with bent back over the unresponsive soil. From him her eyes wandered in search of old Bald Knob and Moses and the others. The bare sky took on new coloring, as she looked. She saw something quite different from the limitless stretch of pale blue, arched over the limitless stretch of pale dun.

"Do you know, Mr. Marner," she said at last, with a comprehending smile; "I think you are a poet!"

The old man straightened up, looked at her and considered the suggestion with some surprise.

"No, I reckon not," he said, after reflection. "I ain't got no more po'try to me than a rabbit. I might twis' one line aroun' so's it 'ud rhyme, an' make sense at the same time, but I couldn't make two o' 'em do it, not to save me."

"Oh, but there's so much poetry that doesn't rhyme," said the girl; and he went on working.

"I never heard o' none but them kinds that goes together, two and two, like a plow team," he said contented.

And this was the last morning of her stay, for the entire three weeks had fled before she knew. Before she knew too, the wagon was at the door her trunk piled in behind the spring

luing right there for years an' years. An' I pulled that nail out before we moved, for I said we'd need all the nails we could git in the new house An' when we got into the new house I foun' that nail here!"

Miss Forester burst into laughter; that was filled with tears, and took the little old woman into her arms.

"But I never did let David know—an' he's never goin' to know," said the little old woman gaily. "But as now, wasn't it good of him—to think of all that—jes' for me? But I would not let him see that I knew, not for all the world, for it does him so much good to think that he's hawdworked me. An' by now ye know, them mountains is jes' as good to me as the real ones. I can see every one o' 'em jes' as plain—an' feel the wind o' 'em—oh, it's such a cool, good wind! But I wanted you to know, so's you could see that I knowed how good David was. An' maybe ye'll come back some time—on your weddin' trip—you an'—an' Mr. Ljerd—for I seen that my dear's, ever if I am blind!" A girl ran out on the wagon, feet footed rosy as the dawn; and there was laughter on her lips and there were tears in her eyes. She stood up for a moment, in front of the spring, and threw a kiss skyward with a waving arm sweep.

"Good-bye, old Baldy!" she cried. "Good-bye old Moses and Aaron and old Bimelech and 'Lijer and all the rest of you—until I come again!"

### The Upward Look

#### The Gift of the Spirit

"God is a Spirit; and they that worship Him must worship Him in spirit and in truth."—John 4, 24.

"If ye then, being evil, know how to give good gifts unto your children, how much more shall your heavenly Father give the Holy Spirit to them that ask Him?"—Luke 11, 13.

Have you got the gift of God's Holy Spirit? If not, then the responsibility rests upon ourselves. Before we can get close to God, before He can come into our lives filling us with a power that can be obtained in no other way, we must have the baptism of the Holy Spirit. We may obtain this baptism if we will ask for it earnestly and if we will comply with the conditions that God has imposed.

God is the source of all love, all wisdom, all power. God is the source of all that we make to make our lives more fruitful for good. Our lives will be glad to shower every good and every perfect gift upon us when we have obtained His promise as we do when we endeavor earnestly to do His will in all things. "No good thing will He withhold from them that walk uprightly." (Psalm 84, 11). The hindrance with many of us is that we do not trust God sufficiently. We think that we are trusting Him but all the time we are endeavoring to accomplish through our own strength and wisdom what can be done only by means of God's power. This is true not only of our efforts to overcome sin in our lives and of our attempts to bring others to Christ but also of temporal blessings as well.

When Christ said, "Except a man be born again he cannot see the kingdom of God." (John 3, 3). He meant that we must be born again in the spirit. That we must have our spirit within us, the Spirit of God, the Spirit of Love. This new spirit would drive out the spirits of evil and make us new creatures. God, as our text tells us, is Spirit. We must have His Spirit within us before we can fully appreciate His love for us and before we can worship Him as we

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This a tells us, is Spirit. We must have His Spirit within us before we can fully appreciate His love for us and before we can worship Him as we

Sample

should. When we do worship Him in spirit and in truth then God will come and dwell in us and we will be filled with a new power, a power that will enable us to accomplish many things that now seem impossible to us, for "I can do all things through Christ which strengtheneth me." (Phil. 4, 13).

This gift is one of the greatest that God offers to us. Because it is so valuable God requires that we must be in earnest in our desire for it before He will give it to us. If we can obtain the power to do "all things" by asking for it, it is not worth putting forth an effort to obtain. During the next few weeks it will be our endeavor to show how this great gift may be secured and what we must do in order that we may obtain it. God has told us to search the Scriptures and when we search them with the right spirit these great secrets are revealed unto us.—H.N.N.

**Women's Institute Convention**

The annual convention of Ontario Women's Institutes will be held in Massey Hall, Guelph, Dec. 8 and 9. The following program has been arranged:—

**WEDNESDAY, DEC. 8**

Morning Session.—Mr. C. C. James, Deputy Minister of Agriculture, presiding.

**10.00—National Anthem.**

Invocation—Rev. R. H. Bell, Guelph.

10.30—Address of Welcome—President G. C. Creelman, O.A.C., Guelph.

10.45—Reply to Address of Welcome—Mrs. J. Talcott, Bloomfield.

11.00—Review of Year's Work—Mr. G. A. Putnam, Supt.

11.30—County Conventions—Discussed by Institute Officers who have had experience in organizing and conducting county conventions.

Afternoon Session.—Mrs. D. McTavish, Port Elgin, presiding.

1.30—Address "Environment"—Dr. Annie Beckus, Aylmer.

Reports of various districts.

2.15—(1) Reports from Representatives of various Districts.

(2) Discussion on difficulties met with in Institute work, and means of overcoming the same.

**THURSDAY, DEC. 9**

Morning Session.—Mr. G. A. Putnam, Superintendent, presiding.

9.30—Address "The Day's Work"—General plans for household management and work in the country, town and city.

Mrs. W. W. Farley, Smithfield.

Mrs. Jno. Cumberland, Brampton.

Mrs. W. W. Howell, West Toronto.

10.30—Discussion.

11.30—Address "Nerves"—Dr. Helen MacMurchy, Toronto.

Afternoon Session—Miss M. U.

Watson, Macdonald Institute, presiding.

1.30—"What Macdonald Institute is prepared to do for the Institutes."

1.45—Exhibition and description of dustless sweeper, laundry appliances, etc.

3.15—Question Drawer.

2.15—Address—"The Development of a Sound Body," Mrs. F. C. Hart, Galt.

Women's Institute work has extended considerably in Ontario during the past year. There are now 520 Institutes with a membership of nearly 14,000.



**Plumbing Not Necessary**

The most difficult feature regarding the installation of the new and more sanitary plumbing fixtures into our country homes, lies in the great cost entailed in putting these fixtures into place. We have lately dis-



Running Water without Plumbing

covered a new sanitary lavatory, illustrations of which are here represented, which does away with this most objectionable feature.

It is a running water lavatory, which does not require plumbing connections. The device is novel and ought to be bought in large numbers.

It consists of a pedestal lavatory of galvanized iron, enameled inside and out, the basin of which rests on a hollow stand having a capacity of five gallons of water. The supply of water is carried in a galvanized iron tank hung on the wall, the front of

the quartered oak frame being fitted with a plate glass mirror.

By turning a tap, therefore, water runs into the basin and empties into the pedestal, which can be emptied daily if necessary.

The lavatory is fitted with nickel-plated towel racks, soap and tumbler holder, pipe and faucet, an dis so simple that by inserting half a dozen screws, the lavatory can be placed in position or changed to another part of the room. It is a washstand, bowl, pitcher, slop jar and mirror all in one, and should find a place in every rural home, where the matter of plumbing is considered too great an expense to permit of more pretentious fixtures being used.



**About House Furnishing**

M. C. Bell, Peterboro Co., Ont.

We build too many of our houses for our neighbors rather than ourselves. This is where we make a serious mistake. Build to suit your needs, and your purse. Don't take into consideration the homes of your neighbors with a view of imitating them, except in so far as you adopt their suggestions of convenience and practicability. Every home ought to have an individuality of its own and this it will have, if it is modelled after someone else's in slavish imitation.

Do not spoil one good room by trying to make two or three rooms of it, as so many do. The time is coming when "the parlor" will be a thing of the past. We are going to have one room that will take the place of the parlor and sitting room—a good-sized, sensible room which we will make use of every day—a living room in the best sense of the term—and in which we will entertain our visitors on the principle that what is good enough for the family is quite good enough for its guests.

If possible have no carpets. Use rugs instead. Let the rug contain the key-note of the color-scheme of the

room you use it in. This will make it necessary to give the matter considerable study. You will have to decide on a color for the walls before purchasing your rugs. As walls and the rugs need not necessarily be of the same color; so long as they are in harmony with each other, but there must be no conflict in tone if you want the general effect to be restful.

EXPENSE NOT NECESSARY. Do not make the mistake of investing in expensive furniture. Let it be good, substantial, honest, of course, but it can be this at a reasonable price. Save money here to put into pictures and books and music. Let the pictures be good ones. One real good picture is worth a score of ordinary ones. Let the books be good ones also, for they are to be companions, therefore you cannot be too careful in the selection of them. Let there be a piano, if it can be afforded, and you are musically inclined. Perhaps you do not play. But that need not prevent you from having good music in the home.

**THE KITCHEN.**

Do not skimp the kitchen for the sake of showing off in the parlor. Make up your mind at the start, to do nothing for mere show. Buy nothing which has not some good reason for its existence. Never invest in cheap things. Be content, if necessary, to go without many things you would like, until you can afford to get such as have the merit of substantiality and genuine worth. Do not attempt to furnish the entire house at the start, if you cannot do this without cheapening the quality of everything. A few really good things will prove vastly more satisfactory than a large number of things too cheap to be of much permanent value.

And—don't run in debt for anything if it is possible to avoid it. The young couple that starts out in married life with a debt on the home is likely to find it a millstone about their necks. It will prevent them from enjoying the things for which it was incurred. The plainest home upon which there is no indebtedness will be

"A good Range and good Cooking is essential to the health and contentment of every home."

**BUY A UNIVERSAL FAVORITE AND YOU BUY THE BEST**

Note the large Oven, 16 loaves of bread in pans 4 1/2 x 10 at one baking.

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FOR A FEW HOURS WORK

Secure a CLUB of only NINE NEW SUBSCRIPTIONS AT \$1.00 EACH, and you will be sent FREE OF COST, an elegant English Semi-Porcelain Dinner Set of 95 pieces.

This set consists of the following pieces: 12 tea plates, 12 soup plates, 12 fruit dishes, 12 butter plates, 12 cups, 12 saucers, 1 platter (10 inch), 1 platter (14 inch), 1 gravy boat, 1 pickle dish, 2 covered vegetable dishes, 1 baker, 1 soup bowl, and 1 cream jug. This set is genuine English semi-porcelain, decorated in a dainty green floral border, with embossed and scalloped edges.

Sample copies on request. Write Circulation Department:

**FARM AND DAIRY, PETERBORO, ONT.**

a paradise compared with that for which one mortgages the future for the sake of fine furnishings.

Girls have rooms of their own, in nearly every family—rooms in which they can work, and to which they can invite their girl friends, and which they can make as attractive as they please in their own way. In such rooms they can feel truly "at home," because they know that they are in-

truding on no one, and not interfering with others of the family. The fact that the room is "their very own" gives it a value, to them, which is a room common to the whole family, never has.

**Girl's Debt to her Mother**

What does a girl "owe" her mother?

To manifest an interest in whatever affects or amuses her.

To seek the mother's comfort and pleasure in all things before one's own.

Not to forget, though she may be old and wrinkled, she still loves pretty things.

Frequently to make her simple gifts, and be sure that they are appropriate and tasteful.

To remember she is still a girl at heart, so far as delicate little attentions are concerned.

To give her full confidence and avoid meriting her disapproval.

To lift the many burdens from shoulders that have grown stooped, perhaps, in waiting upon her girls and in working for them.

Never by word or deed to signify that the daughter's word and hers dif-

# EATON'S



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fer, or that one feels the mother is out of date.

To study her tastes and habits, her likes and dislikes, and cater to them in an unobtrusive way.

To bear patiently with all her peculiarities and infirmities, which after all may be the result of a life of care and toil.

To defer to her opinions, even if they do seem antiquated and not obtrusively to possess the wisdom of one's college education.

To do one's best in keeping the mother youthful in appearance as well as in spirit by overseeing her costume and the little details of her toilet.

Not to shock her by turning into ridicule her religious prejudices, if they happen to be at variance with one's own advanced views.

To introduce to her one's friends and enlist her sympathies in one's projects, hopes and plans, that once again she may revive her own youth.

If she be no longer able to take her accustomed parts in the household duties, never allow her to feel she is superfluous or has lost her importance as the central factor of the home.

To remember her life is monotonous compared to one's own, and to take her to places of amusement or for an outing in the country as frequently as is convenient.

The girl who endeavors to repay in a slight measure what she owes her mother will be most popular with those who are worth considering.

**Make a Companion of Your Daughter**

If there is any time in a woman's life when she needs to be under quieting influences, it is during the transitional period from girlhood to womanhood, a writer advances in the *New Idea Magazine*. Her entire future depends upon the state of her health during the early teens. Accordingly every young girl should be under the constant watch of her mother, and should be permitted all the freedom possible in carrying out her own plans provided that they be in no way harmful.

She laughs and cries in turn, but for what reason she can not say. She



Two Little Ayrshire Men

On the right, Douglas, youngest son of R. E. Ness, of Howick, Que., on the left, eldest son of P. D. McArthur, of New Georgetown, Que.

suddenly find herself possessed of strange desires and feelings; she takes great likes and dislikes; she wishes to break away from paternal rule, even as the race before her broke away from the rule of their fathers and started in life for themselves. She is notional in regard to her food. She can not sleep at nights. She throws herself soul and body into whatever line of work may be claiming her attention for the time being.

She is subject to days and nights of melancholy, when she becomes a slave to imaginary fears. She imagines that her best friends have deserted her. She becomes deeply solicitous for the eternal salvation of her soul, so much so that scientists have term-

ed this period "the age of conversion." She undergoes in advance all the feelings of womanhood. She has a passionate love for little children, especially for infants, and is never happier than when caring for them, nor could they be trusted in hands safer than in hers. She falls desperately in love either with an imaginary man or with one with whom she is acquainted.

She should be kept in the open air as much as possible. Her food should be of the most wholesome variety. She should be loved and petted by the family as never before for never again will she stand in so much need of appreciation. She should be blamed as little as possible for any misdemeanor, for she is now abnormally sensitive.

In a year or so she will be her normal self once more and may then expect to be free from the indulgences which have just been permitted her.

**OUR HOME CLUB**

**WOMAN'S WORK APPRECIATED**

The introductory article in the October 7 issue of *Farm and Dairy* by Mr. C. C. James, Deputy Minister of Agriculture for Ontario, strikes the keynote, when Mr. James says, "Man has man's work to do, and woman has woman's." Unless it is a case of pure necessity, each are better in their place. Yet neither lose dignity to step over the line, if needed.

There is great danger in the mad rush for every material thing, that we make mere machines of ourselves, forgetting the home life, real living and the pleasure of farming. We may make it a real mill; no soul, no love, no life, but work, work that is not home; not living, and the more a woman's work is lightened by loving thoughts and sympathy in providing every help possible, the better able she will be to make it real home. If she is fagged out, there will be precious little home life.

There is much to inspire one to further effort and to envy some who are so favorably situated. It proves that we can be so comfortable and happy in our country homes and as Laura Ross says in her article in the above mentioned issue, "It is very often lack of effort instead of lack of means, which makes us put up with old ways and things." I would add also, "lack of will," for the farmer is not satisfied with a full barn or a full cellar, but he also wants a big full bank book. Here is where woman's work comes in.

A mother should teach her boys to love the beautiful. Many of them see no beauty in anything save a potato patch, or a corn field. If the coming man is taught to love the beautiful, the comforts of home will not be started to keep a fat bank account. We should try and enthrone the farmers to make their homes as attractive as city homes. Land does not cost \$100 a foot in the country. City people, many of them work just as hard as farmers do, yet city lawyers are in perfect condition, their homes kept in perfect or good repair.—"Aunt Faithie."

**DO NOT BE TOO CAREFUL**

There are two sets of conditions when a home does not seem to be a home. One is when the housewife is careless, and the other is when she is too careful. And many men most detest the latter condition.

The too particular housewife wakes up in the morning thinking how she can keep the scrupulous tidiness of her home inviolate from the charming responsibility of the day. She will never spare herself a moment's leisure, because there is always something to clean or dust or put in its place. When a friend calls, this housewife looks askance at the muddy

shoes, and when the husband after dinner puts his evening paper on the floor beside his chair, she picks it up and hides it in a drawer, or, what is worse, asks him to do so.

She would not enjoy her dinner if she observed a spot of rust on the fire-irons or the suspicion of a cobweb in a corner of the ceiling; she keeps her husband waiting half an hour because she must put her hat box back in its exact place.

It isn't home, it is a system. And the only results are the appearance of wrinkles in the face, an edge to the temper, and a lack of sympathy and comfort. There is a very happy medium between the slatternly wife and this other wife who has no thought beyond the brightness of her kitchen range. Let your home be cosy. It can be dainty and clean as well, and keeping it thus need not make your husband feel uncomfortable, or leave you waiting to be a real companion to him.—"The Daughter."

When horseradish is grated, add 1 tablespoonful of sweet cream. This keeps it from turning dark and dry.

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 "New Century" Washing Machine  
 It's far easier than churning or rubbing—no work. Just turn the handle for 2 minutes and the clothes are washed—snowy white. Has a strong wringer stand that allows the water to drain right into the tub.  
 Price delivered at any railway station in Ontario or Quebec—\$9.50.  
 Our booklet tells how to turn wash day into child's play. Write for free copy.  
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 Newell Mfg. Co. Limited, Hamilton, Ont.

**Don't Throw it Away**  
 USE **MENDETS**  
 They mend all kinds of all-woolens—like, brass, copper, brassware, and silverware, etc. They mend all kinds of all-woolens—like, brass, copper, brassware, and silverware, etc. They mend all kinds of all-woolens—like, brass, copper, brassware, and silverware, etc. They mend all kinds of all-woolens—like, brass, copper, brassware, and silverware, etc.  
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# The Washboard Ruins Clothes

Take a new shirt. Soak it well! Then soap it, and rub the suds over it with the Washboard. Do this six times. Then look at the hems, collar and cuffs and the button holes closely.

You'll find them all badly frayed, ripped, thinned, worn out more than from three months' hard, steady use.

Half the life of the garment goes—eaten up by the washboard.

Shirt costs a dollar say—washboard takes 50 cents of wear out of it—you get what's left.

Why don't you cut out the Washboard! It drives the water through the clothes like a force pump. It takes out all the stains in half the time, without wearing a single thread, or cracking a button.

No rubbing, scrubbing, wearing, or tearing of the clothes against a hard metal Washboard that costs twice as much for hard work, and wears out twice as many clothes in a year.

Try the "1900 Gravity" for four washings! Won't cost you a cent to try it for a month, and to me for a "1900 Gravity," and I'll send it to any reliable person without a cent deposit, or a cent of risk on their part.

I'll pay the freight, too, so that you may test my offer entirely at my expense. Use it a month, then return it.

If you like it, then you may keep it.

If you don't like it, send it back to me, at my expense.

If you keep it a week, remember it washes clothes in half the time the washboard does, and it costs less. It works like a spinning top and it runs as easy as a sewing machine.

Even a child ten years old can wash with it as easily as a strong woman.

You may prove this for yourself and at my expense.

I'll send the "1900 Gravity" free for a month anywhere so you can prove it without risk.

I'll take it back then, if you think you can get along without it. And I'll pay the freight both ways out of my own pocket.

How could I do that out of that if the "1900 Gravity" wouldn't actually wash clothes in half the time with half the wear and do all that I say it will.

Write to me to-day for particulars. If you say so, I'll send on the machine for a month, so that you can be using it in a week or ten days.

More than 200,000 people are now using our "1900 Gravity" Washers.

Write to-day to me, personally, F. D. A. BACH, Manager The "1900" Washer Co., 357 Yonge Street, Toronto, Ont.

The above offer is not good in Toronto or Montreal, and suburbs—special arrangements are made for these districts.

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

**Embroidery Designs**

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



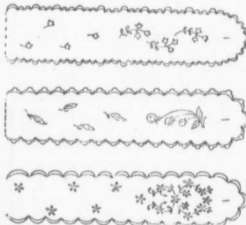
433 Design for a Bloused-Boles Front, Collar and Sleeves.



450 Design for Embroidering a Centre Cloth 24 inches square with Hemstitched or Lace-Trimmed Edges, or the Centre of a Luncheon Cloth.



423 Design for an Embroidered Pillow Sham.



455 Design for Embroidering Napkin Rings of Linen or other Material.

**A Bread-Making Lesson**

Put 1 tablespoon lard, 1 tablespoon butter, 1 1/2 teaspoons salt, 1 cup scalded milk, 1 cup boiling water, into large bowl. When lukewarm, add 1 yeast cake dissolved in 1/2 cup lukewarm water, and 6 cups sifted flour. Mix thoroughly, toss on floured board, knead until smooth and elastic. Return to bowl. Cover and let rise to double its bulk. Cut down. Shape into loaves. Place in greased pans. Let rise to double its bulk, then bake in hot oven 45 to 60 minutes.

It is always a good idea to have your flour out in the warm room getting warm when you are going to make bread.

You can use any kind of yeast. A good compressed yeast cake should be perfectly free from any strong odor, and no dark streaks through it, and should break clean.

**THE FIRST STEPS**  
The first step in preparing bread is to put the lard, lard and sugar and salt into a large bowl. Pour on the scalded milk and water. Let it cool until it is lukewarm. The recipe calls for 1 cup scalded milk and 1 cup boiling water, but if you are in a hurry and want to get your mixture down to the lukewarm temperature quickly, put in your 1 cup scalded milk, and then 1 cup cold water.

If you start bread at night to be baked in the morning, use 1/2 of a yeast cake, but in making five-hour bread, a whole yeast cake can be used. Now to the lukewarm mixture add the yeast cake dissolved in 1/2 cup lukewarm water, and the six cups sifted flour, and beat it thoroughly. We want to start with a good, smooth batter, and use either a knife or mixing spoon.

**THE FIRST KNEADING**  
Now comes the first kneading of the bread. Have your bread well floured, and toss your thoroughly beaten dough mixture on to this. When you take it

from the bowl, always clean it out as thoroughly as you can, so as not to waste any of it. Before you begin to knead the dough, be sure that your hands are perfectly clean. The first kneading should be continued for 15 or 20 minutes. The longer bread is kneaded, the finer-grained the bread will be.

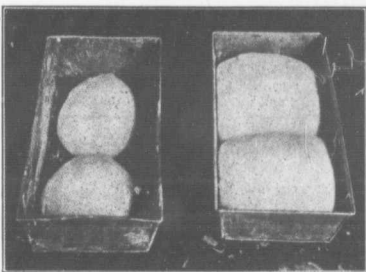
Keep kneading until it is all smooth and elastic to the touch, and the bubbles may be seen under the surface. It is then put back in the bowl and covered with a cloth to rise to double its bulk.

**THE RISING**

It will depend on the warmth of your room and the temperature as to the time it will take for this process. Bread begins to get light when the yeast's 'ant begins to grow. The best temperature to promote this growth is from 70 to 90 degrees Fahrenheit.

**THE SECOND KNEADING**

Now, when dough has reached double its bulk, we cut it down to stop its further fermentation and allow the gas to escape. If you have to leave your bread at this stage, simply cut



After the First Kneading

Ready for the Oven

it down and let the gas out. It won't hurt your bread any. When properly cared for, bread need never be sour. After cutting down, toss on board slightly floured, knead and shape into loaves or biscuits. Place in greased pans, having pans nearly half full, cover, let rise again to double its bulk, and bake in hot oven.

Sweet pickles, olives, capers and celery, chopped very fine, make an excellent salad seasoning.

**The Sewing Room**

Patterns 10 each. Order by number and size. If for children, give age; for adults, give height and bust measurements for waists, and waist measure for skirts. Address all orders to the Pattern Department.

**CHILD'S DRESS 640**



The dress that is closed all the way down the back is a practical one that is exceedingly well liked and this model is so treated, although the closing is well invisible. The front panel is an attractive feature and made all in one but the back and side portions of the skirt and blouse are separate and joined by the means of the belt.

Material required for 6 yrs size is 5 1/2 yds 24, 4 yds 32, 3 1/2 yds 44 in width with 3/2 yds of edging, 1 1/2 yds of banding. The pattern is cut for girls of 4, 6 and 8 yrs, and will be mailed on receipt of 10 cts.

**SHIRT WAIST OR BLOUSE 649**



The tailored shirt waist is always needed. This fills a place that no other garment supplies. This one is tucked most becomingly, and is adapted to flannel, moire and pongee, as well as linen.

Material required for medium size is 3 1/2 yds 21 or 24, 2 1/2 yds 28 or 2 1/2 yds 44 in wide. The pattern is cut for a 34, 36, 38, 40, 42 and 44 in bust and will be mailed on receipt of 10 cts.

**MISSIE'S PRINCESS DRESS 643**



Princess dresses make the feature of the season, and this one is girlish and simple and in every way to be desired. It can be worn with the collarless neck illustrated or with a stock collar. The dress is made with the front panel which is extended to full length.

Material required for 16 yr size is 9 yds 24 or 27, 7 1/2 yds 32 or 5 1/2 yds 44 in wide, with 1 yd of tucking, 4 yds of banding. The pattern is cut for girls of 14 and 16 yrs, and will be mailed on receipt of 10 cts.

**SHIRT WITH TUNIC EFFECT 645**



The shirt that is made with tunic effect is one of the latest. This one is by no means over-elaborate and will be found becoming to almost all figures. It is extended just a little above the waistline to do away with the need of the belt.

Material required for medium size is 9 1/2 yds 27, 7 1/2 yds 44, 6 1/2 yds 52 in wide. The pattern is cut for a 22, 24, 26, 28 and 30 in waist and will be mailed on receipt of 10 cts.

**HINTS FOR THE HOLIDAYS**

Why not send for one of our New Premium Lists and make a selection of several premiums which you would like to earn for the Holiday Season. You can earn them in a short time, and save buying gifts at Christmas time. A club of new subscribers for Farm and Dairy is easily secured.

**'CAMP' COFFEE**  
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By Road or Rail,  
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Your boon companion  
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# CHRISTMAS GIFTS FOR ALL

Be wise and make your selection NOW and obtain first choice. Our Xmas Folder is mailed free on request, and is filled with suggestions for Xmas Gifts, for one and all, and at prices suitable to each and everyone's purse. Prove it for yourself by a trial order—thousands of persons all over Canada order from us. There must be a reason. Values talk. Read our Great Free Delivery Offer and consider the saving it means at the end of one year when buying through Scroggie's Catalogue.

**SATISFACTION GUARANTEED OR MONEY BACK**



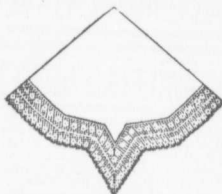
**F. 59.**—Shell or amber Comb set, exactly like cut, with back Comb and Barrette to match, made of heavy stock, beautifully hand carved, open work design, and set with 35 high class brilliants.  
Each set put up in a neat box, suitable for Christmas gift. Extra Special Price. **85c**



**M. 388.**—Stylish lace and net Jabot, with gold net roll. Colors, white, sky, pink and mauve. Neatly boxed. Price **.....85c**



**M. 51.**—Combination Sugar Bowl and Spoon Holder, for 1 dozen spoons, satin engraved body, burnished base, heavy silver plate. Price **.....\$2.25**  
One dozen spoons extra, **\$1.00**  
Sugar bowl and spoons to match **.....\$3.15**



**M. 395.**—Pretty lace edged Handkerchiefs. Fancy box given with 1/2 dozen. Price, **15c** each, or 3 for **.....35c**



**84.**—Dresses length of 3 1/2 yards of nice fancy cashmere, 28 in. wide, suitable for ladies' dresses in a variety of figure, spot and stripe effects. Colorings are navy, green, pale blue, crimson, black and white; also cream ground, with blue, black, brown, red, pink and green designs. Neatly put up in a fancy box, tied with silk ribbon with a Christmas Greeting Card. Price. **85c**



**M. 16.**—Boy's proof Watch. "The American" guaranteed a perfect time piece, stem wind and set, dust proof case. The appearance and style of this watch is equal, in every respect to the highest grade nickel watch made. Price. **\$1**



**M. 28.**—Sterling Silver Brooch, 1 1/2 by 1 inch, white and blue enamel, mistletoe centre. Price **\$1**



**M. 12.**—Art metal Jewel or Trinket Box, elaborate design, lined with silk, rich gold finish, size across top, 4 inches by 3 inches. Price **.....\$1.75**



**M. 38.**—Horse Shoe Brooch, 1 1/2 inches deep, 1 inch wide, with 25 brilliants, gold finish, fine quality. Price **.....\$1.10**



**F. 103.**—Hat Pin Holder, rose pattern, made of all silk Duchesse ribbon, trimmed with narrow satin ribbon, and foliage; in any color. Price each. **85c**



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**M. 390.**—Smart Dresden silk elastic Belt, 1 1/2 inch wide. Colors, black, navy, brown, and light Dresden coloring, green, sky and fawn on white ground, neatly boxed. Price each **.....75c**



**M. 37.**—Fancy solid gold Brooch set with Rhine stones. Price. **85c**



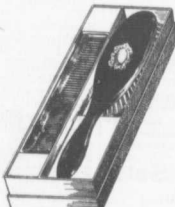
**J. 28.**—Misses' and Children's house Slippers, in red velvet with a silver dot. Finished with a dark red wool braids at top and a steel butterfly on the vamp. These slippers are lined with white fannel and have medium weight felt soles, very acceptable Christmas gift.  
Scroggie's Special Prices:  
Sizes 7 to 10 **.....25c**  
Sizes 11 to 2 **.....35c**



**L. 78.**—Pipe Rack and match holder, with three gilt rings for pipes and the words "one, two, three—here are we," trimmed with baby ribbon. Price **.....85c**



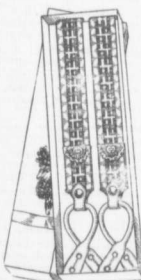
**M. G. 398.**—Two dome fasteners See French kid glove, perfect fitting, all sizes, black, white, brown, tan, drab, navy and green. Neatly boxed. Regular **\$1.00**. Price per pair **.....85c**



**M. 2.**—Two piece Toilet Set, Brush and Comb, in rosewood or ebony, silver mounts. Price **85c**



**N. 398.**—Shaving Set, Brush and Mug, nickel and porcelain, a neat and useful article. Price. **35c**



**P. 100.**—Men's Fancy Christmas Braces, put up in a pretty fancy box, elastic web, plain web, with elastic ends, and also the dainty President Brace in fancy box. **75c, \$1.00, \$1.25, \$1.50, \$1.75 and \$2.00.**

Mail Order Department  
**W. H. SCROGGIE**  
 LIMITED  
 Dept. C.D.F. **MONTREAL, CAN.**



**N. 8.**—Tobacco Jar in oak, with nickel top, and inscription, enamel lined, 3 1/2 inches high, 2 1/2 inches diameter. Price **.....15c**







MARKET REVIEW AND FORECAST

Toronto, Monday, November 29, 1909.—General trade conditions continue healthy and business in most lines is active. The colder weather has stimulated business in the retail line, which in turn makes for more active activity in wholesale. A general indication of the better business here is shown in the further fallings, which are much less in volume than last year at this time. Money continues in demand at five per cent. on call and discounts at six to seven per cent.

WHEAT

The wheat situation shows generally little material change from a week ago. The speculative market has had its ups and downs, but generally the various options are getting down to a more equitable basis. Reports from the Argentine crop are very favorable. The Argentine crop is reported as being very much improved, to be followed at the end of the week by reports from the United States. At the same time, Liverpool cables were strong, and wheat of general tone of the market was healthy. In the west, farmers are holding their wheat to a greater extent than usual years. So far about 50,000,000 bushels of wheat have been marketed. The remainder is expected to be shipped. On Friday at Winnipeg, Nov. 26, wheat closed at 84¢; Dec. at 90¢, and May at 99¢. At Chicago, wheat closed at 81.97¢; May at 81.96¢, and July at 97.5¢. The oat market continues quiet, and there is no report. Dealers here quote western oats at 38¢ to 39¢ lake ports, and Ontario oats at 37¢ to 38¢ on track. Oats are quoted at 37¢ to 38¢ on track. There is more business doing in barley and the market is quiet. At Montreal, malted barley ranges from 52¢ to 65¢ on track, and 51¢ to 52¢ on track at lake ports, and 49¢ to 50¢ on track outside. On Toronto farmers' market, malted barley is quoted at 48¢; barley at 65¢ to 66¢ and peas at 80¢.

COARSE GRAINS

The oat market continues quiet, and there is no report. Dealers here quote western oats at 38¢ to 39¢ lake ports, and Ontario oats at 37¢ to 38¢ on track. Oats are quoted at 37¢ to 38¢ on track. There is more business doing in barley and the market is quiet. At Montreal, malted barley ranges from 52¢ to 65¢ on track, and 51¢ to 52¢ on track at lake ports, and 49¢ to 50¢ on track outside. On Toronto farmers' market, malted barley is quoted at 48¢; barley at 65¢ to 66¢ and peas at 80¢.

FEEDS

An unsettled feeling in bran is reported at Montreal, but generally there is little change. Manitoba bran is quoted there at \$19 to \$20 and shorts at \$21 to \$22. Ontario bran at \$20 to \$21 and shorts at \$23 to \$24. Dealers here quote Manitoba bran at \$21 and shorts at \$23 to \$24, and Ontario bran at \$22, and shorts at \$24. On track Toronto, bran is quoted at \$24 a ton in car lots in bags and 23¢ in bulk. On track Toronto, bran is quoted at \$24 a ton in car lots in bags and 23¢ in bulk. On track Toronto, bran is quoted at \$24 a ton in car lots in bags and 23¢ in bulk.

HAY AND STRAW

The hay market remains steady under a good export demand. It is near the close of the season. Montreal American ports. The market there is quiet, steady with a slight change from a week ago. No. 1 baled hay is quoted at \$12 to \$12.50. No. 2 at \$10 to \$10.50; No. 3 at \$9 to \$9.50. No. 4 at \$8 to \$8.50. No. 5 at \$7 to \$7.50. No. 6 at \$6 to \$6.50. No. 7 at \$5 to \$5.50. No. 8 at \$4 to \$4.50. No. 9 at \$3 to \$3.50. No. 10 at \$2 to \$2.50. No. 11 at \$1 to \$1.50. No. 12 at \$0.50 to \$1.00. No. 13 at \$0.25 to \$0.50. No. 14 at \$0.10 to \$0.25. No. 15 at \$0.05 to \$0.10. No. 16 at \$0.02 to \$0.05. No. 17 at \$0.01 to \$0.02. No. 18 at \$0.005 to \$0.01. No. 19 at \$0.002 to \$0.005. No. 20 at \$0.001 to \$0.002. No. 21 at \$0.0005 to \$0.001. No. 22 at \$0.0002 to \$0.0005. No. 23 at \$0.0001 to \$0.0002. No. 24 at \$0.00005 to \$0.0001. No. 25 at \$0.00002 to \$0.00005. No. 26 at \$0.00001 to \$0.00002. No. 27 at \$0.000005 to \$0.00001. 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POTATOES AND BEANS

Potatoes are arriving in liberal supply, and quotations are on a lower range. There seems to be a big crop in the country and receipts are heavy. Ontario and Quebec are quoted at Montreal at 50¢ to 55¢ a bag in car lots here. Here Ontario potatoes are quoted at 45¢. Ontario potatoes at 65¢ to 70¢ a bag out of store, farmers' market. Reports from Montreal indicate a limited demand for new Ontario beans and quotations are slightly lower than a week ago. Dealers quote the market at \$1.75 to \$1.90 for prime and \$1.95 to \$2 a bush, for hand picked. EGGS AND POULTRY There is no change in the egg market. Receipts of fresh stock are very light, and

new laid very scarce. Fresh stock is quoted in a wholesale way at 30¢ to 35¢ a dozen, both here and at Montreal. Most of the trade is in fresh stock, which is quoted here at 25¢ to 30¢ in case lots. On Toronto farmers' market new laid sold at 40¢ to 45¢ and storage at 30¢ to 35¢ a doz.

The poultry market keeps steady under moderate demand. At Montreal dressed turkeys are quoted at 15¢ to 17¢; geese at 10¢ to 11¢; chickens at 13¢ to 14¢; fowl at 10¢ to 11¢; ducks at 14¢ to 15¢ in a job; 15¢ to 16¢ dressed weight; alive 2 lb. lower. On Toronto farmers' market dressed turkeys are quoted at 15¢ to 15½¢; fowl at 9¢ to 10¢; spring ducks at 12¢ to 15¢; turkeys at 17¢ to 20¢, and geese at 10¢ to 12¢ a lb.

DAIRY PRODUCTS

There is little change in the butter at prices above a farmer market is reported at Montreal, where it is quoted at 25¢ to 25½¢, and current receipts at 24¢ to 25½¢. Creamery receipts are light, but there is no change in the dairy coming in to supply the demand. Wholesale quotations are: Creamery prints, 24¢ to 26¢; 15¢; turkeys, 24¢ to 25¢; choice dairy prints, 21¢ to 23¢.

Judging Prize Farms

The judging for the second and last time of the farms entered in the prize dairy farms competition being held this year throughout Ontario, by Farm and Dairy will be completed by the third week in December. Mr. Henry Glendinning, of Toronto, will judge the farms in Western Ontario just before the Guelph Winter Fair and the remainder just after the Fair. Mr. R. R. Ness, of Howick, Que., will judge the farms in Eastern Ontario about the middle of December. The standing of the prize winners will be announced about the first of January. The judges on this visit desire to see the farms under winter conditions. Watch Farm and Dairy for further announcements and description of the farms.

ubs, 30¢ to 32¢, and inferior at 17¢ to 18¢ a lb. On Toronto farmers' market choice dairy sells at 28¢ to 30¢ and ordinary at 25¢ to 27¢ a lb.

The cheese market rules quiet, but firm. The local cheese boards for the season, after have closed down for the season. At Brockville on Thursday from 19¢ to 16¢ were the quotations for the cheese. At Picton on Friday all receipts sold at 10 to 15¢. Dealers here quote cheese at the rate at 12¢ for large and 15¢ a lb for twins.

HORSE MARKET

The horse trade has ruled on the quiet side during the week. There has been some increase. The quality of the offering was good and receipts were taken gradually as steady prices. Some good express horses are being worked off during the week. Quotations are about as follows: Drivers, \$100 to \$120; general purpose, \$100 to \$120; express horses, \$100 to \$200; drafters, \$100 to \$120, and serviceably sound horses, \$20 to \$70 each.

LIVE STOCK

The paucity of live stock in the country is shown by the decreased receipts at live stock markets here as compared with last year at this time. A week ago the total was 275 head, but this week it was 100. The corresponding week of 1908. The only line in which receipts keep up to a big level is in the calves. The head-cattle have had a good week. While top prices have not ruled any higher than a week ago, there has been a slight increase in the prices paid for under grade. The export cattle trade continues to show a steady falling off in numbers. About 100 head of head-cattle were on the market last week. At the Union Stock Yards on Tuesday select lots sold up to \$6 but the top price for a load

was \$5.75, paid for a well finished lot. Export steers, good choice, were quoted at \$5.75 to \$6; fair to good at \$5 to \$5.50; common, \$4.25 to \$4.75; export heifers, \$5 to \$5.50; cows at \$4 to \$4.50; and export bulls at \$3.50 to \$5 a cwt.

These activity these days is in butchers' cattle, in the winter weather stimulating trade in this line. Choice butchers' cattle continue very scarce. During the week one choice lot was bought at \$6.35 for the Bernada trade, and another lot was reported sold at \$6.50 f.o.b. in the country. There were also reports that as high as \$8 a cwt has been paid on contracts for Christmas beef, but these prices are no criterion of what the market is for the regular trade in the city market on Thursday a number of the best cattle sold at \$5.50, with \$6 and \$5.30 paid for a good many. Medium and common butchers' cattle sold at \$5.75 to \$5.25 a cwt. Butchers' bulls sold at \$3 to \$4.50 a cwt.

Feeders and stockers continue in good demand. Anything with flesh on there prices which the feeder cannot afford to pay. Prices for feeders and store cattle range all the way from \$5.50 to \$5, the latter figure being quotable for choice heavy steers over 1100 lb. each. Stockers are quoted at \$3 to \$3.50 a cwt, as to quality. There were several lots of Manitoba feeders on the market last week, which are quoted at \$3.50 a cwt. Milch cows command good prices though the colder weather dampens the milk flow and consequently not many bring the top price. On Thursday good heavy milking choice milkers were quoted at \$45 to \$55, and common cows and springers at \$30 to \$40 each.

Veal calves continue in steady demand at \$3 to \$3.75 a cwt. Sheep and lambs sell well though receipts of the latter continue heavy. Export ewes are quoted at \$3.50 to \$4; bucks and culls at \$2.50 to \$3; and lambs at \$5 to \$6 a cwt. At Buffalo Canada lambs are quoted at \$7.25 to \$7.50 a cwt. The hog market is steady and a good feeling was reported on Thursday's work. The hog quotations were \$7.40 f.o.b. at country points and \$7.65 a cwt. Fed and watered on the market here. Receipts just now are a little ahead of last year. At Buffalo hogs are quoted at \$8 to \$8.50 a cwt. The Trade Bulletin's London cable of Nov. 25th, quotes bacon as follows: The market is quiet and prices are rather at a decline of 1s and quotations range from 6s to 6s 9/4.

PETERBORO HOG MARKET.

Peterboro, Monday, Nov. 29, 1909.—The delivery of Daniel hogs was heavy last week, 31,000 being delivered in England. The demand for bacon in the Old Country was not so good, the price being one shilling less. The delivery of hogs on the local markets is heavier. The George Matthews and Co. quote the following prices for this week's shipments: 1st country points, \$7.50 a cwt.; weighed off cars, \$9 a cwt.; delivered at abattoir, \$7.60 a cwt.

MONTREAL HOG MARKET

Montreal, Saturday, Nov. 27th.—The market here for live hogs is quiet, and the demand this week for the offering was light. Prices ranged from \$3.25 to \$3.50 a cwt. for selected lots weighed off cars, and at these prices there is an ample supply for the local dealers. The demand for dressed hogs is still somewhat limited, and prices remained steady and unchanged at \$11.25 to \$11.50 a cwt.

EXPORT BUTTER AND CHEESE

Montreal, Saturday, November 27, 1909.—The export butter market is very quiet at the present time and the trade generally is settling down to a long period of comparative inactivity. The receipts from the country have practically ceased, and as far as can be ascertained all the factories have closed for the season.

Advertisement for 'A Savings Deposit' with a graphic of a piggy bank and text: 'It is always well to have a Savings Deposit'.

It is always well to have a Savings Deposit. The Traders Bank, whether it is one dollar or five hundred. There is no formality about making a deposit—you simply fill in the Deposit Slip, as shown above.

Savings Accounts are handled in the 'Savings Bank Department' and our tellers are always glad to assist our customers in transacting their business.

THE TRADERS BANK OF CANADA

Over 100 Branches in Canada

son, or will be closed by the end of the month. The output for the season is estimated at about 50,000 boxes more than last year, the total output being estimated at \$100,000 boxes, as compared with 2,050,000 boxes for the season of 1903. The price of cheese this year has not fluctuated as much as usual; the price paid in the country ranging from 10¢ to 12¢ a lb., with 11½¢ a lb. a fair average. At this rate the output of cheese for the export is valued at about \$30,000,000, this amount being the estimated return to the farmers and factory men. About 1,500,000 boxes of this has already been shipped to Great Britain, leaving about 200,000 boxes still in store here, the bulk of it being in the cold storage warehouses in Montreal. This will be shipped out before the opening of navigation in the spring and is comparatively small stock for the season of the year. The bulk of it is already sold, and is simply held in store here on account of the British importers.

The few lots of cheese offering in the country this week have been picked up at about 11¢ a lb., which is a very full price considering the quality of the fall-end lots available at present.

The butter market is strong with good demand from all parts of the country for finest creamery. Fancy grades are quoted at 25¢ to 35¢ a lb., with ordinary finest at 20¢ to 25¢. Dairy butter is comparatively scarce and is quoted from 19¢ to 22¢ a lb., according to quality.

Advertisement for 'COOPER'S FLUID' with text: 'To Responsible Breeders in Canada we will Send Free of Charge a Sample of— COOPER'S FLUID'.

HOLSTEINS

FOR SALE, HOLSTEIN BULL CALF

Born, Dec. 31. Dam's official record at three years old, 486 lbs. of milk and 21 lbs. of butter. ...

LAKEVIEW HOLSTEINS

Headed by Count Hengervald Payne ...

SALE OF HOLSTEINS

We will hold an unreserved auction sale of 45 pure bred Holstein-Friesian cattle, 15 bulls, including our stock bulls, on

THURSDAY, DEC. 30, 1909

Riverside Stock Farm

Caledonia, Ont.

LYNDEN HOLSTEINS

Korndyke Teakie No. 5609, at head of herd. He traces to Kei No. 2528, nine times; ...

SAMUEL LEMON

LYNDEN, ONT.

HOLSTEINS

WINNERS IN THE RING

Gold Medal Herd at Ottawa Fair

WINNERS AT THE PAIL

See Our A.R.O. Records

Just the kind we want. You combine

THE BEST INFORMATION, THE BEST

THE BEST PRODUCTION, THE BEST

Bull and Heifer Calfs for Sale from Our Winners

"LES CHENAUX FARMS"

Vaudreuil, Que.

Dr. Harwood, Prop. D. Boden, Mgr.

Brookside Ayrshires for Sale

AYRSHIRE BULL CALVES, sired by Scottie -1912- a son of Royal Peter of Ste. Anne's, ...

H. and J. McKEE, Norwich, Ont.

MAPLE LEAF STOCK FARM

GORDON H. MANHARD

Manhard, Ontario

Breeder of Choice Holstein-Friesian Cattle.

At present I will sell 20 young cows, due to freshen in the early part of the winter. Also a few young bulls. E-13-10

SUNNYDALE

Offers Hengervald De Kol Keyes. His dam ...

E-5-10

LYNDALE HOLSTEINS

Head your Herd with Sara Hengervald Korndyke whose dam was recently sold for \$2,000. ...

E-5-10

HOMEBRED AND IMPORTED HOLSTEINS

We must sell at least six cows and heifers at the end of the year. ...

E-4-10

RIVERVIEW HERD

FOR SALE, 3 Bull Calves, sired by Sir Angus Beale Segin, son of King Segin, ...

E-10-10

HOLSTEIN CATTLE

If you are thinking of buying a choice young cow or heifer in calf, come and see our herd. ...

E-4-10

MISCELLANEOUS

TAMWORTH AND BERSHIRE SWINBOARS and Dairy line of Auchincloss - 2023 Imp. ...

WILLOWDALE STOCK FARM

Breeds Clydesdale, Yorkshire and Ayrshire cattle, Leicester sheep, Chester White swine, all of choice breeding, ...

E-4-10

NITSIDALE FARM, Herd of Large English Berkshire

and Hampshire sows and Pigs. ...

E. W. MARTIN, Canning P.O., Paris Station, Oxford Co., Ont.

GOSSIP

SALE ANNOUNCEMENT

David W. Scott has to announce their dispersion sale of registered Holsteins, also other live stock and implements, to be held at Reopeter, Thursday, December 23rd. ...

RAILWAY RATES TO THE WINTER FAIR

The different lines of railways have arranged for very favorable rates to the great educational show at Guelph. ...

TO INCREASE VALUE OF HORSE-G. C. Hungerford, of Gaylorville, Conn., writes under date of October 22, 1909, ...

The Result of Experience

"Have you Holsteins to sell? Then advertise them in Farm and Dairy." That is what Mr. A. D. Foster, the well known Holstein breeder, of Bloomfield, Ont., says in a recent letter. ...

FOR ANY MAN OR BOY Everybody wants to give a present for Christmas that will be appreciated, and it is at the same time useful. Here's a gift for any man or boy which will be the wisdom of the giver in presenting it. ...

It's a choice of three things, and it never gives a good one, too: Stevens' Rifles, Shotgun and Pistol. ...

There's the Favorite No. 17 Rifle that's a favorite with everyone. As a popular expression of our praise, we're giving it about it but the price. ...

But if you would really like to know more about the Stevens' guns write to the makers, the J. Stevens Arms and Tool Company, Chateaufort, Pa. ...

Offers for quick sale a number of Holsteins and other cattle, bulls of individual merit, sired by bulls that have proved their worth. ...

WOODBINE FARM

Offers for quick sale a number of Holsteins and other cattle, bulls of individual merit, sired by bulls that have proved their worth. ...

A. KENNEDY, Ayr, Ont.

AYRSHIRES

MOSSGIEH AYRSHIRES

Herd established fifteen years. But a few have been secured from d.p.m. milked to insure that the new young animals of the present have never been bred for show purposes. ...

SPRINGBROOK AYRSHIRES

Are large producers of milk, testing high in butter and fat. ...

"La Bois de la Roche" Stock Farm

Here are kept the choicest strains of AYRSHIRE, imported and home bred. ...

SPRINGHILL AYRSHIRES

Imported and home bred stock of 4 ages for sale. ...

ROBT. HUNTER & SONS

Imported and home bred stock of 4 ages for sale. ...

SUNNYSIDE AYRSHIRES

Imported and home bred, are of the choicest breeding of good type and have been selected for production. ...

FOR SALE - AYRSHIRE BULLS

From one month to two years old; all bred from large milking stock. ...

AYRSHIRES

We can fill orders for car lots of Ayrshires or car lots of good Dairy Cows in our section. ...

AYRSHIRES & CLYDESDALES

FOR SALE - Three choice pure bred Ayrshires, one choice pure bred Clydesdale. ...

AYRSHIRES

Having just landed with 50 head of choice Ayrshire, mostly purchased at the great Bachelin sale in England. ...

IMPORTED AYRSHIRES

Having just landed with 50 head of choice Ayrshire, mostly purchased at the great Bachelin sale in England. ...

RAVENSDALE STOCK FARM

Ayrshires, Clydesdales and Yorkshire

If it is need of good stock, write for catalogue which are in use of

W. F. KAY, Phillipsburg, Ont.

An Advertisement in Farm and Dairy will fill your Life Stock. Try it.

AYRSHIRE NEWS

Farm and Dairy is the official organ of The Canadian Ayrshire Breeders' Association...

A SHORT HISTORY OF THE AYRSHIRE

(D. Drummond, Ottawa, Ont.)

It is not likely that the precise origin of the Ayrshire will ever be definitely settled...

It is known that the Earl of Marchmont sent to his estate at Sorberie, Kyle, Ayrshire, between 1754 and 1764, cattle known then as the Teasewater or Holderness breed...

Mr. Patton of Inverness, Dalry, is usually credited with having introduced a cross of West Highland blood into the Ayrshire...

It is claimed, too, that Jersey and Guernsey blood was used in making up the breed; this contention is very likely correct...

In this as in all other dairy breeds, owing to the necessity of breeding for performance as well as type, the improvement has been slow and unsteady...

Owing to the conditions under which it has been developed the Ayrshire is a hardy, vigorous breed...

Like most other breeds, Ayrshires have suffered from the hands of breeders to some extent...

Bull calves of this cow were much sought after and largely used, and in the opinion of many did much to impair the usefulness of the breed as dairy cows...

Ayrshires have now become one of the breeds of cattle for which Great Britain is noted and they are exported to all parts of the world...

A Herd Book was established in Montreal in 1870 under the name of "The Canadian Ayrshire Breeders' Association."

Ayrshires have not been boomed by their champions to the same extent as some of the other dairy breeds...

Gombault's Caustic Balsam. The Worlds Greatest and Surest Veterinary Remedy. HAS IMITATORS BUT NO COMPETITORS!

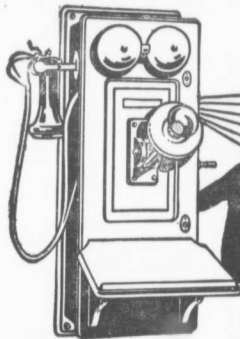
SAFE, SPEEDY AND POSITIVE. Supersedes All Caustery or Firing. Invaluable as a CURE for... The Accepted Standard VETERINARY REMEDY. Always Reliable. Sure in Results.

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

Well Worth While looking into our line of Straw and Corn Cutters. They are strong, easy running and handy to operate. Large and small styles. Latest improvements. The Peter Hamilton Co., Limited Peterborough - Ontario

Dispersion Auction Sale 40 HEAD REGISTERED HOLSTEINS, also Horses, Pure-Bred Poultry, Implements, Barn and 47 Acres of Land, situated within the Corporation at HESPELER, ONT., Waterloo Co. THURSDAY, DECEMBER 23rd, 1909

RES. B. Bu... mil... been... calves... RES. high... call... Thomas... Farm... WYAN... BEAU... MIRE... ONB... HILLS... MALES... QUE... FARM... KAY...



You and your  
Neighbors



## THE SATISFACTION OF SATISFACTORY TELEPHONE SERVICE

**T**HE telephone is in several respects unlike anything else in the civilized world today; it is at once a convenience and a necessity. In fact, so much so is this true that let its service be anything but absolutely perfect and its user feels its loss in a way he could never have believed possible in days before he realized what a telephone meant to him. When you remember that out of 259,000 phones in use in Canada today, all but 9,000 are our make, you will realize the quality we must put into our instruments and begin to understand what

### "Northern Electric" Service Means

**W**HILE "Northern Electric" telephones are as near perfection as brains backed by years of experience can make them, even yet are we trying to still further improve our instruments. Our newly designed No. 1317 Telephone Set—absolutely the most modern farm phone in the whole telephone world—represents years of study, an expenditure of \$10,000 in cash, and months of patient experiment and test before we have allowed it to go on the market.

We now pronounce it perfect—now, firmly convinced that it is all we have tried to make it, we offer it to you. Examine it for yourself—or if you are not sufficiently well posted on such matters, get your own electrical expert to give our No. 1317 the severest tests of which he knows.

Take it up point by point. There is the transmitter, for instance, the same, standard long-distance type that is used on all standard long-distance phones. The general manager of the biggest telephone company in the world could have no better on the private phone he uses on his own desk. There is no better made. And not only is ours the best transmitter but it is also the cheapest in point of maintenance; it requires less battery cur-

rent than any transmitter on the market—as little as 1-7 of some of the others. Then the receiver on No. 1317 is worthy of attention. Here the magnets demand consideration; made from a special grade of steel, they are permanent—retain their full strength indefinitely. And the bell pieces are made of special annealed Norway iron. This receiver is so constructed that dust cannot accumulate on the back of the diaphragm nor can local noises disturb the listener and spoil transmission. Each part of the receiver on No. 1317 is the result of long and careful study—throughout, it is the best combination possible.

Or look at the switch-hook—note how compact and self-contained it is—how all contact springs are vertically mounted as to afford no resting place for dust and other accumulations.

Our standard self-contained switch-hook is equipped with platinum points—you can understand the efficiency for which that makes.

And so it goes—through our No. 1317 every part is the best, and most perfect it is possible to devise. Never before has it been possible for any manufacturer—no, not even for us—to offer such an instrument to the Canadian farmer.



**SEND FOR OUR FREE BOOK**

**T**HIS book, Bulletin No. 0000, we call it, (and that's what you ask for), not only tells you all about our instruments, but also tells you all you need to know—every detail—about the steps necessary to take in the organization of a rural telephone company. It describes the simple procedure—goes into it minutely—tells about the very small amount of capital necessary, explains how to interest your neighbors and informs you how your own community can have just as efficient a telephone service as the largest city on the continent. Write for it, learn why a telephone on your farm will actually save instead of costing you money. Send today.

# THE NORTHERN ELECTRIC AND MANUFACTURING CO. LIMITED

Manufacturers and suppliers of all apparatus and equipment used in the construction, operation and maintenance of Telephone and Power Plants. Address your nearest office.

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