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# FARM AND DAIRY

RURAL HOME

Dairy and Cold Storage  
Commissioner Dec 10

PETERBORO, ONT.

JUNE 9,

1910.



THE HOME OF A FARMER WHO HAS ACCOMPLISHED MUCH FOR HIS BROTHER FARMERS

A glimpse at the home of Mr. Wellington Boulter, in Prince Edward County, whose farm "The Maples" was one of the prize winning farms last year in Farm and Dairy's Prize Farms Competition, is here given. Mr. Boulter is seated in the automobile. The ladies include Mr. Boulter's two daughters. Mr. Boulter has not only been interested in farming all his life but he built on his farm the first canning factory erected in Eastern Ontario and one of the first in Canada. Last year the canning factories in Prince Edward County alone paid the farmers of that county more than all the cheese factories in the county. Canadian canning factories now pay farmers several million dollars a year for their products.

DEVOTED TO  
BETTER FARMING AND  
CANADIAN COUNTRY LIFE



## WE ALL MAKE MISTAKES

Some mistakes are only of minor importance while others affect us as long as we live.

The greatest mistake dairymen are apt to make is to buy a Cream Separator, and continue to use it even if it does not give satisfaction. Did you ever stop to think how small losses amount up to large ones. A loss of one cent a cow each day in the year means a loss to you of \$3.65; with 10 cows the loss is \$36.50; with 20 cows your loss would be \$73.00 each year. It is a matter of great importance to you that your Separator should be a clean skimmer and as perfect in mechanical construction as a man can make it. The SELF-BALANCING DEVICE with which

### The Simplex Link-Blade Separators

are equipped makes the loss of cream in the skimming almost impossible. You will make no mistake in buying one of these machines. Our illustrated booklet is free on request—it's worth reading.

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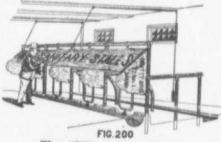


FIG. 200

The "BT" Lifting Manger.

—WRITE—  
LITTER CARRIER,  
**BETTY BROS., Fergus, Canada, HAY CARRIERS, ETC.**

### Provincial Single Tax Organization

Over 40 representatives of tax reform societies from all over the province of Ontario, met in convention in Toronto last week to adopt aggressive methods for the introduction of the single tax theory as a direct legislative proposition. The new Provincial Organization was formed as a result of the convention. The aim of the organization is to be an active drawing force compelling recognition and consideration of the Henry George principles at the next legislative session.

The new organization will be known as "The Tax Reform and Direct Legislative League of Ontario," and the tactics to be adopted are aggressive beyond a doubt. The league will form local organizations in every municipality and electoral district in the province. Campaign work will be vigorously carried on to arouse popular interest in the reforms proposed and finally deputations of representative citizens will bring pressure to bear on the local member to bring on discussion of proposed changes before the house.

Joseph Fells, of London, England, was elected honorary president of the organization; Arthur M. Southam, President; D. B. Farmer, Toronto, Secretary; D. B. Jacques, Toronto, Treasurer; Harry Southam, Charles Stewart and Julian Sale of Toronto, members of the executive committee.

### Work of a Great Scientist

The researches in Bacteriology of Dr. Robert Koch, who died May 27, of heart disease, at Baden-Baden, Germany, have been invaluable to agriculture and to society in general. As early as 1876, he isolated the anthrax bacillus. In 1882 he discovered the germ of tuberculosis. In 1890 he discovered the tuberculin test.

The value of this test in the eradication of tuberculosis among cattle is only now beginning to be appreciated. During the last few years, Dr. Koch has contended that bovine tuberculosis cannot be transmitted to man. In this view he is opposed by most all bacteriologists.

The world has lost its greatest bacteriologist in the death of Dr. Koch. In fact it is largely due to him that the science rests to-day on a firm basis. Agriculture, the world over, will mourn his death.

### Report of the Conservation Commission

The importance which the subject of conservation has for the Canadian people and the valuable matter contained in the first annual report of the Commission of Conservation, makes the report worthy of a place on any reference book-shelf. The report contains the speeches of the eminent specialists who addressed the commission on various subjects of natural resources. It also embodies the program which each of the committees of the Commission has laid out for itself.

Copies of the report may be had on application to James White, Secretary to the Commission, Ottawa, Ont.

### Realizing What's What

The United States are waking up to the fact that Canada is fully competent to conserve her natural resources for the use of her own people. Time was when popular opinion in the United States tended to regard Jack Canuck as a heaver of wood and a drawer of water for Uncle Sam. But certain expressions of opinion of a contrary sort that are now continually cropping up in the American press show that this attitude towards Canada is fast giving way. Here is a sample from the editorial columns of the American Forestry Journal:

"Canada is measuring her timber resources and preparing to protect them by progressive and drastic measures against exploitation for the benefit of wasteful foreign countries, including her next door neighbor. We cannot look to the north for our salvation. We must husband all our remaining resources and plant trees wherever they can be grown more profitably than other crops, in order that our own future may be assured. This is the only way. Canada has not the resources for her own needs and ours, and she is sufficiently wide awake and intelligent to guard her own. The and Canada's can be made inexhaustible is by the application of the highest scientific knowledge and the broadest common sense."—Commission of Conservation, Ottawa.

### Believes He Would Make Good

Editor, Farm and Dairy.—I noticed in a recent number of Farm and Dairy a summary of the splendid work done by President M. Soule of the Georgia Agricultural College, which you suggest that he would make a good successor to Dr. Robertson as head of Macdonald College, St. Anne de Bellevue, Que.

I have known President Soule for some years and have followed with pleasure his marked advances in the prominent positions in agriculture he has held during recent years in the United States and to which your article has so well referred.

I can heartily endorse your recommendations and believe that should the proper authorities act on your suggestions in appointing President Soule to such a place of opportunity, he would make good.—T. G. Raynor, Ottawa, Ont.

### Items of Interest

J. B. Spencer, B.S.A., who since 1905, has been connected with the Live Stock Branch of the Department of Agriculture, Ottawa, has been transferred to the office of (Hon. Sydney Fisher's) office, there to supervise the editorial work and distribution of the publications of the entire department.

According to a statement made by Dr. J. G. Rutherford, Dominion Live Stock Commissioner and Veterinary General, there is no immediate prospect of any relaxation of the regulations respecting dog muzzling in western Ontario. Many physicians have been making requests for the abolishment or modification of the department's order that all dogs within the prescribed area be muzzled, but rabies is still prevalent, and until it is stamped out the regulations must remain in force.

Farmers, here is an extract from an article in Farm and Dairy on "Hours of Labor on the Farm"—"The farmer who attempts to work as long as between rising and retiring, allowing only a short time for meals, is next to a fool. Even with strong physique, Nature rebels against such treatment. Such a man is not living up to his highest privilege. He may make money and extend his possessions, but 10 to one he will have an empty life and a dwarfed soul." Ten hours of active work is enough.—The Canadian Statesman, Bowmanville.

Immigration into Canada for April reached record proportions, totalling about one-quarter of last year's total immigration. The final returns are not yet in, but the total is estimated at about 50,000, of whom nearly one-half were American settlers coming into the Canadian west. Immigration for the month is about double that of April of last year. For May the total immigration consisted of only 15,000, the previous May's record. The Immigration Department reports that the total quality and quantity of this year's immigration far exceeds any previous year in the history of the Dominion.

Issued  
Each Week

# FARM AND DAIRY

## RURAL HOME

Only \$1.00  
A Year

Vol. XXIX.

FOR WEEK ENDING JUNE 9, 1910.

No. 23

### CO-OPERATIVE EGG CIRCLES HAVE BEEN FORMED IN PETERBORO COUNTY

**A New System of Marketing Eggs and Poultry has been Launched Through Farm and Dairy that may Revolutionize Existing Methods.**

**D**URING the past two weeks farmers in several of the best farming districts around Peterboro have organized five cooperative poultry circles. Within the next few weeks they expect to commence the marketing of their poultry products on the cooperative basis that has proved so successful in Denmark. But they expect to retain for themselves the money now appropriated by three or four of the middlemen who handle most of our eggs and to save, also, the great loss that results from our present careless methods of collecting and marketing eggs. The members of these circles believe that from the outset they will be able to sell their eggs for 2 cts. to 5 cts., a dozen above prevailing market prices, and that ultimately they will be able to do considerably better than this.

If this movement proves as successful as there is every indication that it will, it is not unreasonable to expect that it will spread rapidly throughout the county and that it may ultimately revolutionize our present chaotic methods of selling eggs and poultry.

#### CONDITIONS FAVORABLE.

Conditions in Peterboro county are favorable for the success of this movement. How it came to be started is interesting. Several years ago Prof. F. C. Elford of Macdonald College, when chief of the poultry division of the Dominion Government, interested Farm and Dairy in this project. The Dominion Government, however, has never given this matter the attention that its importance has deserved. This led Farm and Dairy, some three years ago, to approach Mr. Wm. Newman of Lorneville, and to suggest that he should introduce the system in connection with some of his creameries in Victoria County. It was proposed that the eggs of the patrons should be collected by the cream haulers, drawn to the creamery and be graded and shipped direct from there, thus cutting out two or three middlemen. Mr. Newman and the editor-in-chief of Farm and Dairy later met one of the managers of the Wm. Davies Co., in Toronto, and explained to him the proposition. It met with his instant approval. The Wm. Davies Co. agreed to purchase, at an advanced price, all the eggs that might be supplied them and to furnish the necessary crates. Later some incidents occurred that prevented Mr. Newman from proceeding with the undertaking at that time.

A few months ago Farm and Dairy again had the matter up for consideration and was planning to start it, if possible, through one of the Peterboro factories. At this same time Mr. Gunn, manager of Gunn's Limited, of Toronto, and of Gunn & Langlois, of Montreal, possibly the largest purchasers of eggs and poultry in Canada, finding it impossible to secure enough eggs of first class quality for their trade, decided that something would have to be done to induce Canadian farmers to market their eggs on a better basis. Mr. Gunn secured the assistance of Mr. John I. Brown of Beachburg, who with his father, Mr. John Brown, secretary of the North Renfrew Farmers' Institute, had done much to interest the

farmers of North Renfrew in the cooperative handling of poultry. Mr. Gunn and Mr. Brown asked Professor Elford of Macdonald College where he would advise them to start the movement. Professor Elford, knowing the interest Farm and Dairy was taking in the matter, suggested Peterboro. When Mr. Brown reached Peterboro and explained the object of his visit, it was decided to make a start immediately in the Peterboro District.

To find if they would be willing to support it, Farm and Dairy decided to first invite a few of the leading farmers around Peterboro to meet in the office of Farm and Dairy to consider the proposal. This meeting was held on May 25, as reported on page 11 of the June 2nd issue of Farm and Dairy, and proved most successful. The proposal was discussed in all its aspects for four to five hours. It was unanimously endorsed. It was further decided to lay the proposal before the farmers in the adjoining districts at meetings to be called specially for that purpose.

Last week and the week before five of these meetings were held. At each place the proposal taken by the farmers and their wives present that in few cases did the meetings adjourn before eleven o'clock, while in one case the meeting lasted until after 12 o'clock. At each point a poultry circle was formed, a draft constitution adopted and officers elected.

#### THOSE WHO SPOKE.

The speakers at the various meetings included Prof. F. C. Elford of Macdonald College, H. C. Duff of Norwood, the representative of the Ontario Department of Agriculture in Peterboro County, who has helped the movement energetically from the first; John I. Brown of Gunn & Langlois, and H. B. Cowan, Editor-in-Chief of Farm and Dairy.

In each case the meetings proved of intense interest. The speakers pointed out that our present system of handling eggs is defective in two important respects. In the first place, four to six middlemen come between the farmer and the consumer. These include the country merchant, the egg dealer, the wholesaler, the cold storage concern and the retail grocer. Each of these middlemen exact a portion of the price ultimately paid by the producer for the eggs and thus reduce the amount paid the farmer. It was estimated by Professor Elford that whereas something like \$25,000,000 was paid last year by consumers for eggs, the sum realized by our farmers, did not exceed \$15,000,000. This meant that some \$10,000,000 went to the middlemen.

#### A GREAT LOSS.

Owing to the careless manner in which many farmers gather their eggs and to the numerous hands through which they pass, often three weeks leave the farm and the time they reach the consumer. The result is that some 17 per cent. of the eggs are either broken in transit or are bad and have to be thrown out by the produce firms which handle them before they are sold to the consumers.

This alone represents a loss of about \$2,000,000 a year to the farmers of Canada. Mr. Brown stated that his firm, which has to keep some 45 men employed all the time candling eggs, throws out an average of two to four dozen eggs from every case they handle and that enough eggs are thrown out in this way, in the course of a year, to buy a whole township of good farming land. The cost of collecting, shipping and handling these bad eggs is enormous. Professor Elford stated that it was sickening to visit these establishments and see the places where these immense quantities of bad eggs are disposed of.

It was brought out clearly that this loss is ultimately paid by the farmers who sell good eggs, as the buyers protect themselves against loss by paying the farmers enough less for their eggs to provide for the loss. Thus the farmers who sell good eggs really provide the money paid the careless farmers for their bad eggs. The fact that farmers who take good care of their eggs do not get any more for them than those who handle their eggs carelessly was brought out clearly.

#### AN UNLIMITED MARKET.

Professor Elford showed that there is an unlimited demand for eggs of good quality. As evidence of this he stated that the heads of one of the largest railways and one of the largest steamship lines in Canada who had been utterly unable to secure enough good eggs to supply their demand had consulted him recently in regard to the advisability of their starting a 50,000 hen plant near Montreal as a means of partly overcoming the difficulty. He had advised against such action, but pointed out to the farmers in Peterboro County that if they would furnish the eggs demanded there would be an unlimited demand for their product.

Mr. Duff and Mr. Cowan showed that by organizing, as the farmers of Denmark have, and by furnishing a guaranteed article, our Canadian farmers will be able to eliminate three or four middlemen and thus obtain the highest market prices for their eggs. The success that has attended co-operative work of this kind in Saskatchewan and British Columbia was mentioned.

#### FORMING THE ORGANIZATIONS.

When it was found at each meeting that the farmers and their wives present were ready to organize, a plan of organization was submitted for consideration. It was shown that it would be necessary in each district for the farmers to have a local organization to look after the collection and shipment of their eggs, that these eggs would have to be collected regularly and that they must be uniform in size and quality. It was decided that the eggs will have to be left by the members of the circles at central points. Where necessary they will be collected by an egg wagon that will be sent out from Peterboro. Space does not permit of a full explanation being given in this issue of the various rules adopted.

It is proposed that every member of a circle shall have a number and that they shall number their own eggs. In this way it will be possible to trace back to each circle and each producer any stale or bad eggs they may deliver. The eggs are to be collected at Peterboro and candled there before shipment. The officers of the circles will

(Continued on page 16)

### Breed Only from Good Mares

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

The abnormally high prices which have been paid for horses during the past year has given a great stimulus to horse breeding throughout the country. This would be for the best under favorable conditions, but unfortunately conditions are not favorable because of the fact that comparatively few really good mares have been left in the country. Farmers, tempted by the high prices, have sold their best mares and as a result many inferior animals will be bred this season from which it will be impossible to get good results.

We hear a great deal nowadays about using only high class and well bred stallions, and rightly so, but in too many cases the brood mares are not the kind of animals that would give even the best stallion a fair chance to do himself credit as a sire. Good breeding counts for just as much in the dam as in the sire, only of course the mare produces only one foal in the year, while the stallion may produce scores.

#### NECESSARY QUALIFICATIONS.

It can be laid down as a rule that the better bred a mare is the more valuable she will be for breeding purposes. But altogether aside from breeding there are some qualifications which a mare should have before she is allowed to reproduce her kind. She should be sound, or at least free from any blemishes or diseases which are known to be hereditary, such as spavin or ring bone, certain forms of blindness, roaring, etc.

Spavin and ring bone would soon largely be things of the past if breeders were more careful in this respect. Then I suppose that over 50 per cent. of the blind horses in the country have lost their sight from attacks of a disease of the eyes called "periodic ophthalmia," or as it is often called, "moon blindness," and yet mares which have gone blind from the action of this most notoriously hereditary disease are being bred every year, with the result that a very large proportion of their progeny will share the same fate as the dam sooner or later in life.

#### CONFORMATION.

As well as a reasonable degree of soundness, a mare also should be an animal of good conformation. There are many mares quite sound and yet not fit for breeding because of lack of good conformation. They are not worth much themselves. No person wants to buy them, and the chances are all against their progeny being much better than the mares are themselves.

A horse of poor conformation is a much more hopeless proposition than a blemished one. A blemish such as a spavin can be treated and in the majority of cases the animal made serviceably sound, but nothing in the world can be done to help a poor conformation—she was born bad and bad she will remain during her natural life—and the farmer using such mares for breeding is not engaged in a profitable business.

#### FREE FROM VICE.

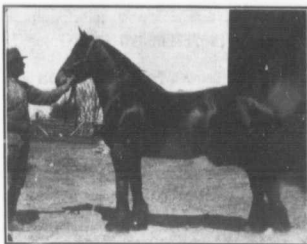
A good mare should also be free from vice. Many mares are so vicious that they cannot be worked and often for that reason they are used as breeders, and while it sometimes happens that such a mare will raise progeny that are gentle, the chances are all in favor of the foal being as vicious as the dam. In fact, the breeder may lay it down as a rule that if he has a mare which is not a desirable animal from any cause and one which he is not able to sell to his neighbor or which the ordinary dealers in horses will not purchase, the best thing to do is to make what use of her he can or if he cannot use her, then destroy her—do anything rather than let her reproduce her undesirable propensities in her progeny.

The business of breeding horses ought to be one of the most profitable branches of the farm, but if there is one thing more than another to which farmers ought to give more attention it is to

the selection of only really good mares for breeding purposes. "Like will beget like," is a very old and very true adage, and while it is of the greatest importance that this rule should not be overlooked in selecting a stallion, many people are not careful enough in applying it to the breeding mare.

#### WEED OUT INFERIOR MARES.

Let the average farmer make up his mind to weed out the inferior mares, and in the course of a very few years the value of the horses in the



The Right Sort of a Clydesdale Mare

Notice the general conformation of this mare, particularly as regards her forequarters. She is owned by Mr. A. Stark, Halton Co., Ont.

country will be doubled. It costs no more to raise a horse that will sell for \$200 than it does to raise one that will only bring \$100, to say nothing about the great number that cannot be sold at any price.

A reaction will probably come in the horse market, but the breeder who is raising only high-class animals need have no fear of the future. The chances are, however, that thousands of colts will be reared during the next few years which will never sell for the cost of rearing them.

### Complete Shelter from Storms

Geo. M. James, Middlesex Co., Ont.

I am a firm believer in the planting of spruce for wind breaks. In 10 years a row of spruce will make a complete shelter against our fiercest



House where Dr. Drummond Died

The high building, shown in the extreme background, is the house near Cobalt, in which Dr. Drummond, the famous Canadian writer of lullaby poetry, died. Lines of pine similar to those shown in the illustration run in all directions and for many miles through the Cobalt district. They furnish the power with which the mines are operated. The ditch shown is similar to hundreds of ditches that cut up the surface of the soil, and which have been dug by propostors. Notice the rocky nature of the soil and the freedom from trees. Wherever the mines are located, the land is similar to this.

stoms. I would be in favor of all township councils offering a bonus to owners of land adjoining all highways to plant spruce, for their shade, for their looks and for the complete way that they prevent the snow from drifting.

Think of the money saved in some years if no drifts were allowed to form on our public roads! I have given another large order for spruce, intending more perfectly to shelter my buildings.

### An Investment for Abundant Water\*

Frank Ellis, Brant Co., Ont.

Since installing an artesian well, which I did at the considerable expense of about \$600 for the outfit complete, I am satisfied that my cattle yield one-third more milk and they do better in every way than they did previously when I had to rely on an indifferent supply of cistern water, drive the cattle a mile or more to the creek, or haul water for them in times of drought. It is a great advantage to have an abundant supply of water. It is pleasing to see the cattle come from the pasture and drink whenever they feel like it. My well may seem a costly one, but could I not get another, it could not be purchased for as many thousands as it cost me hundreds of dollars.

My sympathy is with any man who tries to farm without abundant water for his stock. I believe that it would pay any farmer who is without water to borrow money at a very high rate of interest to install a well rather than to be without abundant water.

#### LOCAL DIFFICULTIES.

We are so situated in our immediate locality that it is a very difficult matter to get a good well. Several of my neighbors had on different occasions tried to drill for water. In every case they were forced to give it up on account of boulders. When I came to this farm and erected my buildings I took it for granted that water was out of the question so far as a well was concerned.

At the barn I had a cistern built that would hold 250 barrels; one at the driving house held 50 barrels, and besides we had one at the house. A person would think that these three would supply all the stock kept on a 100-acre farm. To my sorrow, however, just when I was busiest I would have to take my team and draw water. If I did not draw water, we had to drive the cattle over a mile for it, and it always so happened that we were out of water in midsummer or when it was very cold in winter.

So much for the stock. As for our house, we have most surely had local option for years, for we certainly had soft drinks when drinking soft water.

#### THE CONTRACT GIVEN.

Such was the situation until a well driller from Brantford came along one day and offered to put in a well for me, casing and drilling, for \$1.75 per foot. Should he not get me a good well, there was to be no pay. That seemed fair to me, and as I was quite disgusted through having to do without water, I gave him the contract. He drilled 243 feet. It proved to be a big job, for he struck boulder after boulder from the surface to within 17 feet of the water; then they struck rock, which was 220 feet from the surface. Drilling in the rock was progressing when all at once the drill dropped about one and a half feet. This tapped a stream, and apparently a very large one, for the water came within 50 feet of the surface, and it has since proved impossible to lower it one inch.

#### PUMP BY WINDMILL.

I put a Brantford mill and pump on the well and forced the water into a steel tank in the bathroom over the kitchen in the house. From there it goes to a 40-barrel tank in the basement of the barn, from which it is distributed to the house as desired.

A pipe leads from the tank in the bathroom down to the sink in the kitchen. We have there on tap good cold well water, which we can take whenever we want it. We all drink about three times the water that we used to, and the doctors tell us that considerable water is essential to good health. All told, the investment in this well is one of the most satisfactory expenditures that it ever made.

\*This article is one of the series of essays by prize winners in the Dairy Farms Competition.



### Summer Feeds for Dairy Cows

*D. D. Gray, Farm Foreman, C. E. F., Ottawa.*

The practice of feeding grain to cows while on pasture has many advocates; it also receives a lot of adverse criticism. If there is a time when a cow should get a rest from being grain fed it is when she can get a good mouthful of grass. It is well, however, to decrease the grain part of the ration by degrees as the cow gets used to the grass and accustomed to the changed conditions and thus prevent a loss of flesh. It has been my experience that a cow that has had a rest or a complete change when on grass gives 1 ster results for the meal consumed when being put back again on a meal ration, which should commence when the pastures are getting short.

When pastures become short, the value of soiling crops as a means to produce green food for cows cannot be over-estimated. Even though grass may be plentiful, it becomes dry and loses its succulence and is not suited for milk production; hence the necessity of having some soiling crop, or succulent food, to supplement the pastures. The list of soiling crops is a long one, but those best adapted for our needs are peas and roots, vetches and oats, clover and corn. Where alfalfa can be grown it stands as one of the best

No hard and fast rule can be given as to the exact time to commence feeding grain, if the grain ration has been stopped while the cows were on good pasture. The kind of grain or concentrates to be fed would, of necessity, be governed by the prices of the feeds to be bought, the kind on hand and also the nature and quality of the soiling crop used. There is, however, a principle which can be followed through all feeding, and which will apply to the feeding of concentrates, with soiling crops, as well as during the winter. It is this, that when the soiling crops are made up of the clovers or peas and oats, or any protein foods, it will be in order to make such feeds as barley or corn a factor in the concentrates fed. If, on the other hand, the soiling crop is made up of green corn or corn ensilage, then the concentrates should be high in protein such as bran, gluten meal, oil cake meal or even ground oats.

### Curing Alfalfa and Timothy Hay

*Herb. F. Morris, Huron Co., Ont.*

Thirty acres of alfalfa and from six to 10 acres of timothy I grow on my small farm each year. When I see the first blossom on the alfalfa, provided it be fine weather, I cut down about four acres. I cut it as early on a Monday morning as possible.

alfalfa is stored the timothy is generally ready to cut. I cut it as soon as the first blossoms have fallen. I cut about half of what I have in the afternoon and the other half the next afternoon. I let it lie in the swath for a day after it is cut and in the evening of the day after it is cut and I run the tedder over it to turn up the green hay. The next day I kick it again with the tedder between 10 and 11 o'clock and it is ready to rake after dinner and to draw in after 3 o'clock.

When using the tedder on alfalfa I cross the swaths as much as possible, but when at the timothy I go around the piece taking two swaths at a round. It makes a much better job to go around in the direction opposite to the mower.

#### WHEN RAIN COMES.

If a shower of rain falls on any of the hay, in swath or windrow, I use the tedder on it as soon as the rain is over to shake the water out, and continue to ted it about every two hours afterwards until it is dry.

The second and third crops of alfalfa I cut in the afternoon. I use the tedder on it next day just before dinner, rake it into small windrows right after dinner, go up and down each windrow with the tedder as soon as I have finished raking what was cut the day before, and in a short time it is in fine shape to rake into bunches and coil. I always try to coil all that is dry before the dew begins to fall, for the sun and dew on dry alfalfa works considerable harm.

I use the horse fork for unloading the first crop of alfalfa and the timothy. The rope slings are used for unloading the second and third crop. Each load is spread evenly over the mow. About a gallon of salt is sprinkled on every ton of alfalfa and about a gallon and a half on every ton of timothy.

I always seem to have good bright, green, tasty hay to sell or to feed, and I feel sure I could not have it nearly so good without using the tedder. I have used a tedder for 17 years. I find it a very necessary implement and would scarcely know how to get along without it.

### No Discredit on Immature Sires

*M. L. Haley, Oxford Co., Ont.*

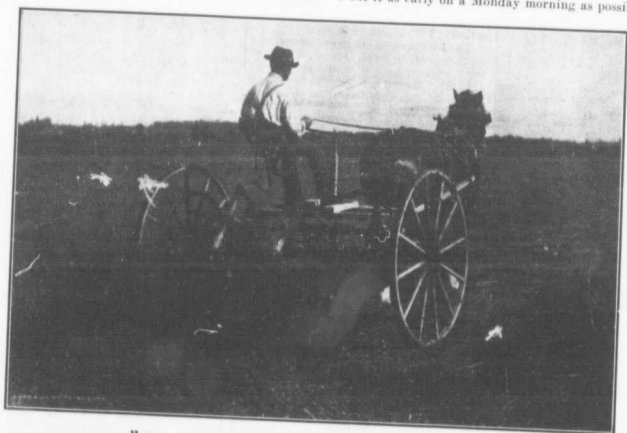
Much has been said against the practice of using a young bull, also bulls from heifers. All this to the contrary, I have yet to see any bad results from breeding to such young sires or to those dropped by heifers.

I shall give two instances in reference to this matter. The owners of these bulls, I believe, will agree with me. The bull 'Victor DeKol Pieterje' was from a heifer. He left many daughters with large records—one that has won sweepstakes at the Guelph Winter Fair in 1908 and 1909. Another daughter has a record of over 21,000 lbs. milk in one year. The bull 'Count Mercena Posch' was used at nine months of age. His heifers have just been milking for two years. One of his very young heifers, in strong competition, won second prize in the two-year-old class at Guelph Winter Fair 1909.

I am not advocating the use of young sires, but I would not turn one down if he is a good individual with the right breeding. The bull last mentioned must have been thrifty and strong or he would not have been ready for service at nine months. His offspring are just as large as those of any matured bull.

It is a most important thing in keeping a bull to keep him thrifty and strong. The old saying, 'Like begets like,' is as true as ever, and if we are striving to improve our dairy cattle we should select a bull whose dam and sire's dam are better than the cows on which we are going to use him. To use any kind of a bull just because he is registered can result only in disappointment and failure. Get the best and breed better.

Of all our farm machinery, we would part with the hay making implements with the greatest regret.—J. K. Moore & Son, Peterboro Co., Ont.



Harvesting one of the most valuable crops that the farm can produce

Alfalfa requires the most careful handling of all hay crops. It must be cut at the proper stage of maturity, and be handled with the greatest care throughout the process of curing, else much of its value will be lost. The illustration shows a tedder at work in a part of a 30 acre field of alfalfa, in Huron Co., Ont., owned by Mr. Herb F. Morris, who gives, in the adjoining article, his method of curing alfalfa.

for summer feeding, as it can be cut two or three times at least.

#### THE VALUE OF SOILING CROPS.

Soiling crops are valuable in so far as they are palatable, nutritious, abundant in growth and the length of time they remain succulent. It is wise to make provision by growing some of these so that they will be available when needed, for most of us have found that dry spells come, and down goes the milk yield, and it generally stays down when allowed to drop off at this time of the year, any length of time.

Crops that are cultivated while growing are safer to grow to supply soiling food, as they suffer less from drought than do other crops. For instance, it is possible to grow a good crop of corn in a season too dry to obtain a good crop of peas and oats.

The feeding of ensilage as a soiling food is growing rapidly in favor. It can be conveniently fed and the supply assured, as the crop is grown the year before. It also has another advantage, in that it can be fed without requiring any horse labor, which counts for a great deal in the busy season.

I use the tedder on it in the evening so as to turn up what is green to catch the dew. Next day in the morning I cut down about four acres more and about 10 o'clock I start to use the tedder again on what I cut the day before, going over the heaviest parts first, and tending these parts again after I have finished the lighter parts.

About two o'clock I commence to rake, and if the hay is a little too tough to coil I use the tedder on the small windrows after I have the piece about half raked, going up and down on each as fast as the horse can walk. I then finish raking the piece and commence to coil it.

In the evening I run the tedder over what was cut that morning and ted it again the next morning, after I have cut about four acres more. If the weather remains fine I follow the same rotation of cutting, tending, raking and coiling until Friday. I don't cut any on Friday or Saturday. On these days I draw in what we can besides coiling on Friday what was cut on Thursday. This latter is ready to draw in after I have cut about five acres more on Monday morning.

If rain does not interfere with my plan, my alfalfa is all cut in about 10 days. By the time the

## The Feeders' Corner

The Feeders' Corner is for the use of our subscribers. Any interested are invited to ask questions and seek technical interest. All questions will receive prompt attention.

### Ensilage along with Grass

Would it be asking too much of you to answer this question, if you have experienced along this line.

We have ensilage in our silo to continue feeding our cows for about six weeks, as we keep them in the stable at night, they eat it fine. Do you think they will do as well by continuing this until our ensilage is fed, as our corn is good, rather than on night pasture?—M. B. Stormont Co., Ont.

I would suggest that you give your cows one feed a day of this ensilage and so ease up on your pastures to some extent. You might find that the cows were not willing to take the ensilage at first, especially if they were getting all the grass they wanted, but in a short time they will begin to eat it, especially if the matter is in small amount of meal on the ensilage.

If you depend upon the ensilage for any considerable part of the feed of these cows for the next six weeks, you will find it necessary to give them some bran therewith, in order to get the best results from your cows. If your ensilage is in such shape as to be likely to keep well, I would suggest as the best plan to scatter it, that is the plan of feeding likely to give the best results in the way of milk, the giving the cows just a very small quantity night and morning for the next two or three weeks. Then, when grass begins to get rather short, increase the amount of ensilage.

This will ease up on the grass at the critical period and will help keep the cows in full flush of milk, when they might otherwise show a tendency to fall off, as usually happens in July. The small amount of ensilage that you would feed during the month of June would be just about enough to keep the surface of the ensilage from getting off flavor.—J. H. G.

### Hogs Thrive on Skim Milk

Experiments conducted at the Ohio Experiment station give concrete evidence that skim milk is one of the most profitable supplementary feeds for fattening hogs that the farmer can obtain.

While it required 617.7 pounds of corn meal to make 100 pounds of gain, it required only 427.9 pounds of corn meal and soy bean meal, 131.5 of corn meal and middlings, 360.2 of corn meal and tankage, while the corn meal and skim milk lot required 289.9 pounds of corn meal and 801.8 pounds of skim milk.

The corn was rated at 56 cents a bushel or one cent a pound; the soy bean meal at \$30 a ton; tankage at \$40 a ton; middlings at \$28 a ton; and skim milk at \$3 a ton, or 15 cents per hundred pounds. To put it in another way: When corn alone is used at one cent a pound, 100 pounds of pork would be \$4.71. With corn meal and tankage in the proportion of six to one, tankage at \$40 a ton, the cost would be \$1.12. When corn meal and middlings, half and half, are fed, middlings at \$28 a ton, the cost would be \$5.96. With corn meal at the price mentioned and skim milk at 15 cents a cwt., the cost would be reduced to \$1.11 a hundred pounds.

This is an item of profit which many farmers did not consider when they abandoned the creamery for the milking station. With one of the standard makes of separators, the creamery patron is able not only to dispose of his cream at a price almost equal to that which his whole milk brings at the shipping station, but his skim milk fed to hogs on the farm, gives him another source of considerable income. In addition, he will have

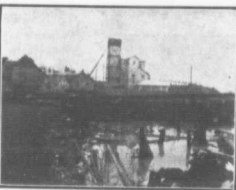
a large quantity of manure worth many dollars in comparison with the prices charged for commercial fertilizers.

There is nothing better for your pigs than skim milk, and when used in connection with corn and other grain feeds, it produces excellent pork. Dairying and hog-raising may well go hand in hand. The creamery patron and dairy butter producer can make large dividends by keeping enough hogs to consume all their skim milk, and with the present unsatisfactory condition of the market milk-producing industry, we believe many progressive dairymen will abandon the milk shipping station and return to the creamery or making dairy butter for private trade.—R. L.

### Buttermilk for Pig Feeding

What is the best feed to mix with buttermilk in hush shoes (leaves)? Bran, shorts, ground oats or ground barley are available. Is buttermilk of much value as a feed for pigs?—J. W. Westwood, Ont.

For pigs from six weeks to three months old the best material to mix with buttermilk to induce rapid growth and healthful progress, is a mixture of equal parts shorts, ground



One of the Famous Cobalt Mines

A portion of the plant of the Temiskaming Mine near Cobalt, in New Ontario, is shown. This plant was visited by an editor of Farm and Dairy, in connection with the recent discovery of the scandium. Press Association. It is possible to travel for several miles in the Cobalt district and see the hills dotted with buildings similar to these. This mine has a shaft 600 feet deep, and is sinking it to a depth of 500 feet.

oats (with the hull sifted out), corn meal, and oil cake meal. Add about one pound of this mixture to a gallon of buttermilk.

Pigs of the age mentioned should be fed about four times a day. From three months onward a good meal mixture would be shorts, crushed oats, crushed barley and corn meal, equal parts. Mix with buttermilk at the rate of about two lbs. to a gallon, and a little later, say, when the pigs are four or five months old, from three to four pounds of meal might be mixed to a gallon of the buttermilk, adding water if it were considered too thick a mixture.

If oil cake meal is not readily available for the mixture for young pigs, then gluten meal or feed flour or middlings, might take the place, although they would not prove quite so satisfactory.

### FEED IT WHILE FRESH.

Buttermilk is a most valuable feed for young pigs, but care should be taken to feed it as fresh as possible, or if it has to be kept for some time, then an attempt should be made to have it uniformly sour.

With mill feeds at present prices, buttermilk is worth from 15 cents to 60 cents a cwt., according to the manner in which it is fed. If fed very liberally it would probably be worth about 15 cents. But if fed in a proportion of from three to five lbs. of buttermilk per pig per diem, along with sufficient other food to keep the pig doing well, its value is very easily worth as much as 60 cents a cwt., that is 100 lbs. of buttermilk would have the same effect as from 50 to

60 cents worth of suitable meal added to the already mentioned—J. H. Grisdale, Agriculturist, C. E. F., Ottawa.

### A Remedy for Grasshoppers

Many farmers have become heartily discouraged in recent years because of severe damage to crops by grasshoppers. Notwithstanding the great damage done, practically no attempt has been made, on the part of those suffering from the depredations, to kill the grasshoppers. Dr. Hewitt, Dominion Entomologist, in his evidence before the committee on agriculture at the House of Commons, endorses a particularly simple remedy for grasshoppers, which remedy is given in the following extract from his evidence:

There is a very simple remedy for locusts which has been devised by a farmer in Manitoba, Mr. Norman Criddle, who is now doing some work of an artistic character, for the Department of Agriculture. His remedy has been called "Cridde's Mixture." He found that locusts were very fond of horse-droppings, and by removing the habits of locusts naturally conceived the idea of poisoning the horse droppings and farmers are now finding it a very cheap remedy. The method of making the Cridde mixture is as follows:

Take 60 pounds of horse droppings to a pound of Paris green, which is the arsenical poison, and two pounds of salt. Mix that in a barrel and then cart this barrel to the edge of the infested field, and by means of a spade, trowel, or wooden paddle, scatter it around the edge of the field which is infested, or likely to be infested, and the locusts by feeding on these horse droppings are poisoned. Another method is plowing late in the autumn where there has been an attack of locusts, and in the spring egg capsules are plowed under and the young locusts prevented from emerging in the following year. Another method which is frequently employed against locusts is that of using "hopper-doers," which are long narrow tin trays on swooden frames shaped something like this (illustrating) with two ends. The trays contain water covered with coal oil, and as they are dragged along the field, the locusts hop into the trays and are thus caught.

### Diseases Transmissible Through Milk

In an address before the Canadian Medical Association, met in convention in Toronto last week, Dr. J. G. Rutherford, Dominion Veterinarian, stated that milk should never be used from cows suffering from chronic sepsis or retention of the placental membrane, and the following diseases were communicated through the milk to human beings: Cow pox, anthrax, rabies (possibly), foot-and-mouth disease, trembles, actinomycosis, and last of all and worst of all, tuberculosis. Scarlet fever also was traceable to cows.

Tuberculosis should be attacked in the cow, and as that was the most common method of its transmission to humanity, the stamping out of the disease amongst cattle would remove one of the great sources amongst human beings. Afterwards when there were no tuberculous cows the transmission of tuberculosis would cease to be a problem. The sale of milk from cows not known to be free from tuberculosis is a crime against society, and any community that permits the sale is accessory to the crime. "What, then," said Dr. Rutherford, "must we say about communities that continue to authorize the sale of milk from cows known not to be free from the disease?"

Renew your subscription now.

### Gasoline Engine as a General Farm Power

R. Nourse, Peterboro Co., Ont.

A gasoline engine such as I have is as safe as any lantern so far as fire is concerned. It is moderate in cost of fuel. About one gallon a horsepower per 10 hours will do all that is required by my six horsepower I. H. C. gasoline engine.

I run a general carriage repair shop, also a 16-inch plate grinder. I can grind from 2 to 15 bags an hour. The engine is very easy to operate, and I have given it for six years and it has saved me but little bother.

It is surprising to me that so many other forms of power are sold when these engines can be had. It would seem to me that gasoline engines will take the place of steam engines before many years. I cannot speak too highly of the gasoline engine as a general power.

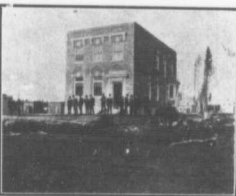
### Dairy Cow Queries

What is the object in keeping a cow? Is it simply to consume the crops grown in the fields? Is it to supply home made fertilizer for the farm? Is it to give the hired man another chore?

Is it not rather to produce plenty of good milk? To be of real service to mankind by converting feed that he cannot use into nourishing, appetizing food? While being kept for this purpose does she earn a profit? Does she pay for her keep?

Would you be better off if you sold the feed instead of keeping some of the cows that you now have making a pretence of using it profitably? Does each one of your cows produce milk at a cheaper rate per hundred pounds than the factory pays? Does each cow in your herd produce milk or butter fat at a good profit above the cost of feed? Do you think so or just make a guess at it, or do you know for certain? How else is your labor to be paid for?

Do you keep records so as to find out these things, or are you content to keep a few poor cows in a behind-the-times style? Men who used to get only 3500 lbs. of milk and 133 lbs. of



A Bank Building in New Ontario

The day when banks waited for business to come to them has passed. Now they are as aggressive in seeking new business as men in other lines of business. The illustration shows the handsome building of the Bank of Ottawa, erected at Cochrane, at the junction of the Temiskaming and Northern Ontario Railway, and the National Transcontinent city, a year ago, at a half ago the town of Cochrane was practically unknown. It is 480 miles north of Toronto and about 140 miles from James Bay. A few years ago we thought this district was nothing but a land of rocks and ice. fat per cow, are now getting 400 lbs. of milk and 188 lbs. fat, since beginning to keep records. Would you not be glad to obtain a similar increase of over 40 per cent.? Then keep records.—C. F. W.

In order to build up a dairy herd, it is important that the dairy farmer should know what every cow when he sees one.—Wm. Reid, Lambton Co., Ont.

**FARM MANAGEMENT**

**A Rotation of Soiling Crops**

Could you give rotation of summer soiling crops after corn? It is better to be fed green, and name of earliest corn to be fed before silo corn is ready.—A. F., York Co., Ont.

Very few crops come to maturity after peas and oats can be harvested to advantage for soiling. The following, however, will do fairly well. First, white or strap-leaved turnips, the root and leaf both being very acceptable to cattle and the feed leaving no perceptible flavor in the milk; these may be sown as late as the last 10 days of July. Second, sorghum, sown at the rate of about 30 lbs. an acre in rows 15 to 20 inches apart. This might be sown as late as the middle of July. Millet, sown 40 lbs. an acre; this might be sown as late as the middle of July. There are no varieties of corn that will likely do very well, sown after the 1st of July. It is possible, however, that an evergreen sweet corn would prove fairly satisfactory. This attempting to get two crops of the same field in the way described is to follow a three-year rotation, that is, divide the area destined to the production of soiling crops into three equal fields and follow therein a rotation somewhat as below.

First year—Corn, half evergreen sweet, half Longfellow.

Second year—Peas and oats, four to five bushels an acre, seeded down with 10 to 12 lbs. clover and five to six lbs. timothy. Cut before the grain shows any tendency to lodge.

Third year—Clover, fed off in late June and August. This will furnish soiling crops from middle of June till end of September, provided, of course, area is sufficient.—J. H. Grisdale.

**How to Test a Cow**

What is the best way to test a cow? Should the milk or the butter be weighed? —Mrs. W. P., Algoma District, Ont.

It is necessary, if one would have the fullest information, to know how many pounds of milk, also how many pounds of butter, a cow produces. The best way of getting at this matter is to weigh the milk at each milking, and on representative days throughout the month. Weigh the milk in the morning and evening of the milk, and have this tested by means of the Babcock tester for fat. With such data available, it is then possible to compute the pounds of fat and pounds of butter produced.

The method as recommended by the Dominion Government in connection with their cow testing associations, requires no labor, and, though, of course, is not as thorough as the method outlined. They simply weigh the milk twice a day, three times per month, on the 10th, 20th and 30th of each month. The weights for the intervening dates are then reckoned from the data obtained in this way.

**Alfalfa Taints the Milk**

Would you kindly give through Farm and Dairy the experience of growers of alfalfa who mature it in spring? I have milk cows in ten acre field, half in grass and half alfalfa. Milkman objects to favor; customers in Toronto don't like it.—A. F., York Co., Ont.

The objectionable flavor complained of by Toronto customers would disappear in a few days and if the retailer in Toronto would take the trouble to mix the milk for a few days with that from other customers no objections would be made by consumers. The same trouble is observable in every dairy, but usually people do not object to the flavor of new clover or alfalfa, the thing wears off in a few days.

A good plan to follow where it is impossible to mix the milk with other milk, or so lessen the intensity of the flavor, is to let the cows out gradually

on to the clover or alfalfa, that is, feed well in the morning, let cows out for an hour or so, then return to the stable. This repeated for a few days or possibly a week, gradually extending the time of the cows on the clover or alfalfa, but always being careful to feed liberally with roughage and meal in the morning, will make the change from dry feed to succulent so slowly that no objections will be raised.—J. H. G.

**Long Alfalfa in the Silo**

Have any Farm and Dairy readers tried cutting alfalfa and putting it in a silo for green feed, with chopping it up? Would it be possible to do so? If so, it would save a lot of work cutting and feeding it in field every day.—A. W. H., Oxford Co., Ont.

Alfalfa has been treated at the Experimental Farm in the way described by your correspondent. It was, however, not entirely satisfactory, since it was found to be almost impossible to preserve the material for five or six inches in from the wall. The centre of the ensilage kept perfectly, but the outside always went bad. Further, we did not find it so easily handled as when put into the silo through the cut box, that is, it was more difficult to feed and apparently not so acceptable to the cattle.—J. H. Grisdale, Agriculturist, C. E. F., Ottawa.

**Concrete Fence Posts**

Concrete—cement, sand, gravel and water combined in proper proportions—has become one of the leading building materials of the day. It has shown its worth as a substitute for wood; houses built entirely of cement, the trimming and supports of wood being merely for decorative effect; it is used by the Government, by railroads, by farmers in hundreds of ways, either alone or reinforced; and has been found to produce even good fence posts. Its moderate cost, its durability, the ease with which it is handled, the wide distribution of the sand, gravel and stone of which it is composed, commend it to the consideration of all builders.

As a material for fence posts, concrete has been found to possess but few of the disadvantages of wood, to have practically all its advantages, and to be superior in some respects to timber. Of course, the first cost may be more or less than the best wooden posts, but that depends on local conditions, the timber supply, the deposits of sand, gravel and rock, and the skill of the workman.

**COMPARED WITH WOOD.**

If manufactured as usual and cured for three months, concrete posts are as good as the best wooden posts. After three years, concrete posts possess only one-third to one-half of their original strength, whereas concrete grows stronger with age, and does not require repairs, as neither weather nor fire injures it. Under ordinary circumstances concrete posts will last forever; and even in the course of a few years a few should be broken by unusual strain; it is cheaper to replace them than to replace an entire fence of decayed posts with a material with the same lack of durability.

Concrete posts are attractive in appearance because of their uniform size and color, and can be made either square, triangular or round, either straight or tapering towards the top. They can be purchased from dealers or made at home, and this latter plan together with suggestions as to the construction of the fence after the posts are made and cured, is the theme of Farmers' Bulletin, No. 403, recently issued by the U. S. Department of Agriculture.

**A WARNING.**

The pamphlet closes with a warning to persons intending to buy post molds, either steel or wooden, to beware of travelling agents who are selling molds or rights for the sale or

use of their respective molds. No dealings should be had with these agents except when fully satisfied through reports from one's banker or lawyer that the company represented by the agent is reliable and that the agent is their authorized representative. Patents have been issued on special types of reinforcement, and they can not be generally used without danger of infringing patent rights; but none of the simple forms described in the bulletin is patented or patentable and they are just as good as the special forms advertised and recommended by the agents. No one need hesitate to use the simple form of construction recommended, for it has been in constant use in all countries for a number of years, and all claims that the general use of reinforced concrete fence posts is controlled by patent rights are unjustified and untrue.

**To Drain Some Bog Land**

I wish to drain some bog land and would like to get information on the subject. The land is black muck or light soil with subsoil or marl or light soil which shows drain with salt deposits. The bottom of drain is not firm enough to keep tile in line. There are a number of small springs that I wish to drain to one head. The costs over 4 cents a foot laid down at station.

- (1) What would be the best material to use for such drain from an economical and effective point of view?
- (2) If of lumber how would you advise constructing box to give plenty of seepage and avoid choking with silt?
- (3) What depth had drain better be laid, the land being intended for garden purposes?—H. C., Brightwater, B. C.

1 and 2.—Tile would probably be the most economical, as lumber does not last long. The life of balsam would be about seven to ten years, of pine, of spruce and hemlock, 15 to 20 years; of tamarac, 25 to 30 years and of cedar, 40 to 50 years. Tile last indefinitely. If tar paper about two inches wide is laid over the joints so as to lack about two inches of lapping on the bottom, the difficulty with the sediment, will probably be overcome, especially if care is taken to secure a grade of say three inches in 100 feet.

To keep the tile in line they may be laid on a narrow strip of board. If you are so far from a tile yard that three inch tile cost four cents apiece it would probably pay you to get moulds and make cement tile, as they can be made for about a cent each, not counting the price of the moulds.

3.—In muck soils the drains should be put about four feet deep, as the muck settles about one-third, as a result of drainage and tillage.—W. H. D.

How often we find men on adjoining farms with practically the same work for the horses, frequently on the same feed, and yet one may have his horses in elegant condition while those of the other man are a disgrace to him.—H. Barton, B. S. A., Macdonald College, Que.



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## HORTICULTURE

### The New Destructive Insects and Pests Act, 1910

C. Gordon Hewitt, *Dom. Entomologist*

By the passing of the new Destructive Insects and Pests Act by the Dominion Parliament the San Jose Scale Act is repealed. The new Act and regulations are of a wider character and of a far greater protective value to the fruit-grower and nurseryman. The fumigation regulations instituted under that act have been incorporated in the new regulations with certain alterations. Under the new fumigation regulations coniferous will be fumigated. It is hoped that this will assist in preventing the introduction into nurseries of several species of woolly plant lice which infest nursery stock and which are carried in the same.

In addition to the fumigation regulations provision is made now for:

1. The destination of European nursery stock (which is still exempt from fumigation), and such other stock as it may be deemed necessary to inspect.
2. The destruction of infested stock and packages, etc., containing the same and compensation for such matter as may be destroyed.
3. The inspection of orchards and nurseries and the treatment of infested vegetation.
4. The prohibition of the disposal in any way of vegetation infested with insects scheduled under the Act.
5. The notification of the presence of any kind of insects, pests or diseases.

In view of the increasing amount of nursery stock imported through the port of Niagara Falls, the importation season for that port has been extended and stock may now be imported between October 1st and May 1st.

The attention of importers of nursery stock is called particularly to regulation 5, under which notification must be given of the importation of nursery stock. This regulation reads as follows:

"All persons importing nursery stock into Canada shall give notice to the Minister within five days of despatching the order for the same, and they shall again notify the Min-

ister on the arrival of the shipment into Canada."

All nursery stock, including European and such stock as is exempt from fumigation, may be imported only during the periods specified under Regulation 3, as follows:

"Nursery stock, including trees, shrubs, plants, vines, grafts, scions, cuttings or buds, entering Canada shall be imported through the ports and during the periods respectively hereinafter mentioned, that is to say: Niagara Falls, Ont.,—from October 1st to May 1st.

"Winnipeg, Man., and St. John, N.B.,—from March 15th to May 15th and from September 20th to December 7th.

"At these points of entry the importations shall be fumigated in the fumigation houses provided for that purpose, and a certificate of fumigation will be issued, without which no stock may be taken out, and no importations by mail shall be subject to the same regulations."

### Treatment of Wounds

The argument in favor of dressing wounds caused by pruning or otherwise on fruit trees is that it prevents decay and checks evaporation, both of which might interfere with the healing process. While in our climate the first is hardly applicable, the second should probably be issued, and important. Yet, the matter of dressing wounds is not so important but that work improperly done is worse than no treatment. A good lead paint is one of the most satisfactory dressings yet found. Rather a thick paint should be used, and careless dabbing of the surrounding bark should be avoided. Grafting wax is a good dressing, but is rather expensive and difficult to apply. Other materials have been used, some successfully and some disastrously, and the grower is to be cautioned about experimenting; better stick to materials known to be safe and efficient. Growers often overdo the matter and waste time treating small wounds. Surely a wound less than one and one-half inches in diameter is not worth bothering with.

These suggestions apply to wounds made by the careless cultivator, as well as those made by the pruner. Unhealthy wounds and permanent injury may often be avoided by proper treatment of trunk wounds. When the bark of the tree is injured, the ragged edges of the bark should be pared off to sound tissue and the whole injury covered with paint or grouting wax. If promptly done, this prevents drying out of the tissues, and new bark will readily form, except on parts where the outer wood is naturally destroyed, and in time this will grow over. Wrapping the injury with cloth, or if it is near the ground, mounding earth up over it will often answer the same purpose.—Prof. O. B. Whipple, Colorado Experiment Station.

I have read Farm and Dairy for the last three years and think it is the best agricultural paper I have ever subscribed for.—R. H. Reynolds, Aird, Quebec.

### The Proper Fertilizers

I am at a loss to know what kind of fertilizer is required for different varieties of vegetables. My soil is a light sand and for three years I have been putting manure on it, as much as I could get, so that perhaps it was rich enough with that fertilizer. But I do not know what plants require lime or ashes, or bones, and so forth, and therefore cannot get the best results. Kindly give me the list of vegetables for a small scale garden and the kind of nutrient each requires.—E. G. D., Middlesex Co., Ont.

In many cases it is quite impossible to tell what a soil is deficient in without experimenting, that is, applying certain fertilizers and noting the results obtained. All vegetables require three main fertilizing materials—nitrogen, phosphoric acid and potash. A fourth, but added, namely, lime, but this constituent is generally present in ordinary soil in sufficient quantity, although some instances are known in which lime has been proven to be deficient. Where lime is lacking, the effect of its application may be most readily observed through the use of a small quantity on a small plot.

For garden crops, such as cabbages, cauliflowers, celery, tomatoes, leeks, onions, carrots and potatoes, fertilizers applied at the following rates (in pounds per acre) have given good results:

Cabbage, cauliflower, celery—Nitrogen, in the form of nitrate of soda, 200-300; phosphoric acid in the form of superphosphate 400-600; potash in the form of muriate of potash, 100-250.

Beets and carrots—Nitrate of soda, 140; superphosphate, 400; muriate of potash, 140.

Tomatoes—Nitrate of soda, 120; superphosphate, 400; muriate of potash, 320.

Onions—Nitrate of soda, 100; superphosphate, 500; muriate of potash, 160.

Potatoes—Nitrate of soda, 100; superphosphate, 400; sulphate of potash, 200. You will notice that in the case of potatoes, the sulphate of potash is used instead of the muriate form.

All three of the essential plant food ingredients must be applied to the soil nearly in the proportions indicated in order to get the best results, but it must be remembered that no fixed and fast rule can be given as to the quantities of fertilizers to apply, as these depend upon a great number of factors over which the producer has no control.

Under ordinary conditions fertilizers should be applied some time before seeding, except in the case of nitrate of soda. As this fertilizer is very soluble, and, therefore, liable to be washed out of the soil before the crop is able to make use of it, the larger part of the plants are singled out. The fertilizers should be sown broadcast either by hand or by a fertilizer distributor, and wherever possible harrowed lightly. A further comment I would add here is that careful observation of the tests by his own garden will enable the producer to follow such a system of fertilizing as will give him the most satisfactory results.—Prof. W. P. Gamble, Ontario Agricultural College.

### Orchard and Garden in June

Control of moisture in orchard soils, box packing of apples, growing and marketing strawberries, ice storage, cherry growing, grape growing, planting blackberries, the planting of windbreaks and trees in England, are subjects of live interest treated in the June issue of The Canadian Horticulturist, published at Peterboro, Ont. Amateur flower growers will find much interesting information in the articles on ornamental grasses, gladioli culture, begonia, aster and ferns. The lawn and garden

hints for June contain many practical and timely suggestions. An article dealing at some length on "Insects Injurious to Vegetables," will be of interest to vegetable growers.

Some of the contributors in this issue are Prof. F. T. Shutt, M.A., Central Experimental Farm, Ottawa; J. A. Ruddick, Dairy and Cold Storage Commissioner, Ottawa; Roderick Cameron, Superintendent of Parks, Toronto; L. Caesar, Ontario Agricultural College, Guelph; Arthur Gibson, Central Experimental Farm, Ottawa; J. A. Webster, Sparks, Ont.; M. McPherson Ross, Toronto; and C. Mezzo, Berlin, Ont. This issue contains much that horticulturists will read with profit and interest. Sample copies will be sent free on request to the above address.

To have strawberries in the best condition for keeping and for marketing, they must be picked and not pulled. At least one-half an inch of the stem should be picked with each berry. Keep the poor, mis-shapen and very small berries out of the boxes. The best policy is to market only saleable fruit.—J. P. Dodds, Peterboro.



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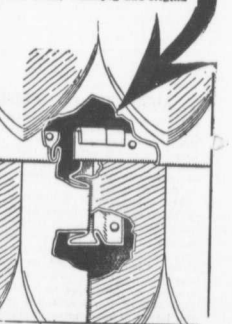
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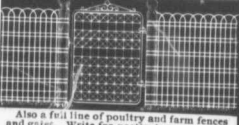
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**POULTRY YARD**

**How to Feed Broiler Chicks**

Robert Smith, Lambton Co., Ont.  
When raising broiler chicks it is generally customary to feed the chick heavily from the time they are two weeks old. Where the pullets are to be kept for layers, this is not to be recommended. We always feed the batch in the usual manner till we can select the cockerels. The age at which the cockerels can be selected varies with different breeds. In our case where we sell to the summer resorts there is little sale before July. Where they are sold to hotels they may be marketed earlier. Broilers should bring high prices this summer, as fowl is very scarce.

If the cockerels are to be fed heavily, it is imperative that they have every advantage possible to give them in the way of feeding and runs. Give them plenty of room in pens in order to allow for exercise on rainy days. Have the house well ventilated and allow plenty of light. Make low roosts and encourage the chicks to roost on them, as it is very unhealthy for them to huddle up in one corner. Have the place warm and never allow the droppings to accumulate. If the chicks cannot be induced to sit on the roosts, give them plenty of clean chaff and allow no droppings to remain under them from previous nights. Where the youngsters are allowed to sit night after night on their droppings, which are frequently wet, they will invariably contract roup or some other disease.

**FEED THEM OFTEN.**

The cockerels being selected and placed in a pen and having been previously fed plenty of wholesome feed, should be in vigorous health and ready to stand plenty of forcing. There are two systems of fattening. We always prefer the wet ration, or mash ... as we can thus feed more of a variety. It is advisable to feed the chicks several times a day from the time they are hatched, as they will always do better on the same quantity fed every two hours than when twice the amount is fed four times a day.

The mash we feed is composed as follows: Corn meal, finely ground, three parts; shorts, one part; bran, one part—by weight. To this we add a little ground flaxseed or oil cake. Where ground bone or meat scrap cannot be procured readily so that it may be fed before it decays, add to the mash ground animal meal. Dampen the mash with skim milk; do not

**Elm Grove Poultry Farm**

Offers for sale 20 one year old Barred Rock hens at \$1.00 each; also 15 Rose Comb Brown Leghorns, \$1.00; and a number of one year old Rouen ducks, cheap.

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WANTED—Cheese makers the coming season to sell subscriptions to Farm and Dairy, Peterboro, Ont. Good cash commission for each subscription taken. Write Circulation Manager, Farm and Dairy, Peterboro, Ont., for sample copies for your patrons. Samples sent free on application.

EGGS from pure bred Buff Orpingtons, one dollar per fifteen. Imperial Pekin Ducks, ten cents each—Miss M. Gerris, Ingersoll, Ont.

EGGS GIVEN AWAY in return for new subscriptions. A setting of eggs of any standard variety of fowl, given away for two new subscriptions to Farm and Dairy. Send to Circulation Manager, Farm and Dairy, Peterboro.

have the mash more than 'damp enough to adhere together.

As soon as your chicks will leave the roost, feed them a liberal feed of wheat tailings in a litter. At 9 a. m. green food is given. This feed depends largely on what is procurable; mangels and cabbages are excellent, but are generally fed long before the time of the year. Potatoes are now selling unusually low, and they form a desirable green food. Lettuce, rape, etc., are good when cut with a meat chopper. At 11 a. m. feed the mash. At 1 p. m. litted rice is fed; this keeps the chicks free from bowel trouble and indigestion, and cheap grades of rice can often be procured from stores. At three we feed mash again. At five mash or cracked corn is given. (There is considerable waste in some cases if the corn is ground too finely.)

We are careful to see that the chicks always have plenty of fresh water before them, as well as grit and granulated charcoal. We feed in shallow tins or pans, and are always very careful not to overflow; overflowing is a very frequent cause of failure. We leave the pans till the chicks seem satisfied and then remove them. The mash should never be dishd up on the second time. One soon learns how much is required at a feed.

**First Experience with Incubator**

Mrs. Newton, Labelle, Co., Que., bought an incubator this spring and set 142 Barred Plymouth Rock eggs. For fear she would not be able to run the machine and wanting to make sure of chicks, she set six hens on 78 eggs. From 142 eggs she hatched 113 chickens. From the 78, she hatched 30 chicks. She claims that the former are doing just as well as those hatched by the natural means.

By the time the chicks were three weeks old, she had lost only three, none of which died of disease. Mrs. Newton is quite emphatic in saying that any person of ordinary intelligence can run an incubator if they are willing to follow the instructions of the manufacturer.—F. C. E.

**Egg Laying Ducks**

Many farms near the large Eastern American cities keep certain kinds of ducks just for the purpose of egg laying. Duck eggs are in demand by bakers and confectioners and bring a higher price per dozen, being larger and of richer quality, than hens' eggs. The Indian Runners, often called the Leghorns of the duck family, are seemingly the favorites for this purpose, as they have laid as many as 200 and more eggs in one season. The farmer just wanting enough ducks for home consumption and in such case of course it may be of advantage to allow the old birds fullest liberty until the demand for them has set in.

The young ducks that are intended for the early or summer market are called green ducks. They must be kept in close confinement and fed liberally, so that their greatest weight may be attained when 21 weeks old. This is the time of their first moult and greatest profit. In localities where fresh brewer's grains can be had daily, a ration consisting of one-third of it and mixed with two-thirds of the following in equal proportions, is a good one: Cornmeal, middlings and bran, to which 10 per cent. of beef scrap and 25 per cent. of greens chopped fine, is added.—R. L.

Renew your subscription now.

**Chicks Have Disease**

My young chicks this spring have some disease. I think it is diarrhoea. What would you advise doing for them?—A. R. D., Victoria Co., Ont.

The description you give is so very meagre that it is impossible to say what the trouble is. If however, you think it is indigestion, which is often shown by the presence of diarrhoea, you will do well to give a little scalded milk or boiled rice. If this does not have the desired effect, try muriatic acid in the drinking water, one spoonful to the quart. Ask at the drug store for muriatic acid B.P.—F. C. E.

**Anxious about Young Turkeys**

My turkeys when small are fed hard boiled eggs; bread and milk is given when they get a little larger. I have great trouble with them when feathering out. Many of them die about this time. What would you advise doing for them?—Mrs. A. McC., Huntington, P. Q.

This spring has been very hard on young turkeys. The feed you are giving them is all right, and as you do not state the quantity you are feeding it is difficult to say what is the matter. When feathering out, turkeys will do well on any wholesome food; young turkeys are always delicate and require considerable attention.—F. C. E.

**Poultry Pointers**

If you have been breeding "any old thing," get some eggs from a reliable breeder, hatch and start now to raise some good poultry and raise

some pure bred poultry. They will eat no more, sell and look better. Order eggs and start to-day with a resolution to have better poultry.

Exercise during the winter months is very necessary to both cocks and hens, if we wish fertile eggs for hatching.

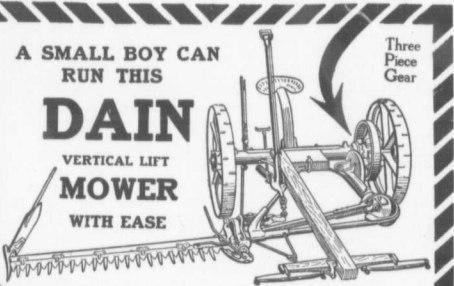
Clover not only promotes digestion but also largely assists in supplying the elements necessary for egg production.

Take a foot square of grass sod and place it in one corner of the brooder pen and note how much is left of the roots and how the little chicks enjoy it daily.

On a well cultivated field chickens can be raised for just half what they would cost to raise on a grass plot.—Prof. W. R. Graham, O. A. C., Guelph, Ont.

You need not be afraid, but just let the chicks and fowls of all ages and sizes have all the wheat that they will eat. Keep it before them all the time; it is one of the best feeds. Let them eat it when they wish. It is one of the most profitable feeds to feed and is more profitable to feed it in this way.

I am sending \$1 to renew my subscription to Farm and Dairy, which paper every farmer should have. It is one of the best farm papers printed. I have told my neighbors about Farm and Dairy, and I hope they all will take it soon, because it would be a great help to them.—J. W. Pinkney, Kings Co., N. S.



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AND RURAL HOME

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## FARM AND DAIRY

PETERBORO, ONT.

### A DANGER LINE TO AVOID

Advanced registry, or record of performance tests, have been adopted by the more prominent dairy breeding associations. Such tests have great value. For that reason we believe in them. They have done more than any other one factor to lead our farmers to take a greater interest in the milk production of their cows and to demonstrate the possibilities of the average dairy cow. It is questionable, however, whether or not there are not some features of the advanced registry that may not require safeguarding. Of late the values of cows with large official tests have increased so greatly there is a possibility of some breeders being led to adopt methods of breeding and feeding that will ultimately prove disastrous.

The value of a breed or strain is apt to be judged by the number of animals it has in the Register of Merit. To such an extent is this the case that it is only natural for breeders, in order to satisfy the popular demand, to breed for performance alone and thereby overlook the other important

essentials demanded of a good dairy breed. It is a strong willed man who can resist the temptation to breed from cows with large records, but lacking in constitution, even though he realizes that he may thereby be propagating a weakness in the breed.

Constitution and fecundity should never be forgotten in breeding dairy cattle. Neither of these characteristics necessarily accompany the ability to produce a large amount of milk in a short space of time. Far-seeing breeders recognize this fact and avoid breeding from animals when they find them deficient in these points, even although they may have large milk records.

Advanced registry having been vogue only for a short time, the unfortunate results that may accompany it unless care is taken, are not yet much in evidence. Progeny of high record cows, even though they be of faulty constitution, are much in demand. It is a well known fact that such cows, when their constitutions have been impaired, drop strong living calves, but rarely. The proportion of cows that have been great performers that are dams of great performers is not as large as it should be. Many of the highest producers have not dropped a normal number of healthy calves. At the same time it should be remembered that performance and fecundity may and in most cases do go together. Both these points should be kept in view in breeding operations. The danger point is reached when members of a family of any dairy breed achieve fame as producers. They then demand the most careful breeding and selection possible, to prevent constitutional deterioration.

The situation is much like that which existed for a time when the value of pedigreed stock first became apparent. For some years unjustifiably high prices were paid for almost any kind of an animal that had a pedigree. When, however, it became known that there were scrubs even among pure bred stock more care was exercised by purchasers. We must be on our guard to see that we do not make the same mistake by concluding that any animal bred from high milk producing stock must for that very reason be perfect in every other respect. Fortunately the large records that have been made in Canada so far have been made by animals, almost without exception, possessing remarkable constitutions.

### CO-OPERATIVE EGG HANDLING

The farmers in the districts immediately adjacent to Peterboro have shown themselves very much alive to the possibilities of the fresh egg business. The movement, set on foot two weeks ago by Farm and Dairy, looking towards the formation of cooperative fresh egg circles, has met with a ready response. In each of the five districts organizations have been formed, and farmers interested, on the new basis, it is anticipated, will be soon an accomplished fact.

The cooperative marketing of eggs is no new thing. The Danes have made a success of it for years. It has been

tried and has proved successful in parts of Canada and in the United States. The time has come when farmers of this country no more will be content to allow from three to five commissions on their produce before it reaches the consumer.

The principle on which these cooperative egg circles are being organized is a right one, and it is bound eventually to win out. The farmers of the Peterboro district are to be commended for their foresight in taking up this scheme as readily as they have. It is only a question of time until the principle of cooperative egg circles will be adopted elsewhere and eventually spread throughout the Dominion.

There are those who contend that it is impossible for farmers to cooperate. Such contention, as is well known, is utter fallacy. The history of our dairy industry and of the cooperative movement in the fruit industry is testimony to the fact that farmers can cooperate and that most profitably to themselves. There are and always will be some with whom this principle, in operation, will be impossible. These men need not receive consideration, for we have enough of the better class of thinking farmers who recognize the great advantages that will accrue to themselves through marketing their products on a cooperative basis.

### SCALES DISPLACING THE PIPETTE

Leading dairy authorities in various states of the American Union express themselves in positive terms on the question of the superiority of the gravimetric method of measuring samples of cream for the Babcock test. Professor C. H. Eckles, of the University of Missouri, whose letter appeared in Farm and Dairy last week, states that the farmers of Missouri would not be satisfied with a test made by a pipette and that they are entirely justified in taking this position. The law in several of the states, including, in fact, nearly all the leading dairy states, requires that samples of cream for testing be weighed rather than measured for testing.

It is gratifying to learn that our creamerymen in Canada are coming to recognize that the scales afford the only just means of taking samples of cream for testing. Mr. Mack Robertson, Creamery Instructor for the Northern Group in Western Ontario, reports that almost 50 per cent. of the creameries under his instruction have adopted the scales. This is a most satisfactory record. Other creameries will do well to follow their example and thereby remove one of the greatest sources of doubt and error in connection with the Babcock cream test.

Patrons of cheese factories, cheese makers and others interested in our dairy industry, so far as cheese is concerned, should give heed to the advice of Mr. Frank Hearn, Chief Dairy Instructor for Western Ontario, published in the cheese department of this issue. Careful attention to and application of the points brought out cannot fail to have a marked influence on the quality of the cheese manufactured during the warm summer weather.

### DESTRUCTIVE INSECTS AND PESTS ACT

The new Destructive Insects and Pests Act, and the regulations embodied thereunder by the Dominion Parliament, are of very great importance to the fruit growing and nursery interests of Canada. A brief review of this Act by Dr. Hewitt, Dominion Entomologist, may be found on the horticultural page of this issue. The Act appears to be very complete and covers all possible destructive insects, pests and diseases that should be guarded against by law.

The Act applies to the following insects, pests and diseases: The San Jose Scale (*Aspidiotus perniciosus*), the Brown-tail Moth (*Euproctis chryorrhoea*), the Woolly Aphis (*Schizocara lanigera*), the West Indian Peach Scale (*Aulacaspis pentagona*), the Gypsy Moth (*Portheftia dispar*), Potato Canker (*Chrysophlyctis endobiotica*), parasitic diseases affecting potatoes externally or internally, Branch or Stem Canker (*Neetria ditissima*), Gooseberry Mildew (*Sphaerotheca mors-uvae*), White Pine Blister Rust (*Peridermium Strobi*).

In view of the great destruction that may be worked by any one or all of these pests, it is most commendable that the authorities at Ottawa recognize the national importance of keeping these insects and diseases in check. Anyone interested in horticulture should send to Dr. Hewitt, Dominion Entomologist, for a copy of this new Act and become acquainted with the details of the same.

### AN AWFUL INFANT MORTALITY

According to the findings of the Milk Commission of the Canadian Medical Association, 10,000 children under five years of age died in Ontario last year and 50 per cent. of these deaths were due to impure milk on which they were fed. This is a lamentably large infant mortality, and of this it is said that at least 50 per cent. of those who died under the age of five years died from some kind of infantile diarrhoea or kindred preventable diseases, under the age of two years the proportion was 90 per cent.

In introducing the report of the Commission, Dr. J. C. O. Hastings, at the general session of the Canadian Medical Association, which met in Toronto last week, stated that there was no problem in preventative medicine of greater significance than that of removing the dangers that existed in the ordinary market milk. He drew attention to the fact that because one child died from rabies, every dog in Western Ontario had been muzzled and asked why were not some stringent measures taken to save the 5,000 children, under five years of age, who, at a conservative estimate, might have been saved to Canada by preventative measures last year, out of the 10,000 that died. Certificates were required before druggists, doctors and even undertakers could practice, but any ordinary foreigner, or man, who is willing to do the work, could come in and milk the cows and send out the milk, which filled the coffins of the undertaker.

Much censure is rightly coming to

many milk producers. We often lose sight of the fact, at least we fail to realize, that milk is an article of food and one that is most readily contaminated. Failure to exercise the greatest care in its production, keeping everything clean and selling milk only from the healthy cows, is little, if anything, short of criminal. The best of us may well ponder on this question and do our utmost to live up to the responsibility that is ours when we engage in the business of milk production.

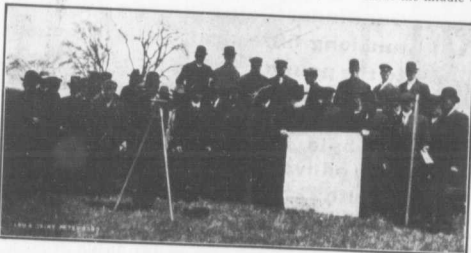
**Instruction in Drainage**

The drainage demonstrations given by experts sent out by the Ontario Agricultural College are most interesting and instructive. A demonstration was recently held on the farm of Mr. Pollard of Durham Co., Ont. in charge of the demonstration, explaining the advantages of drainage in carrying off surplus water and preventing moisture in the soil for the advantage of crops during the dry season. He also gave instances of the great increase in the value of the crops and showed how wet lands could be made productive by means of

mer they produce a great mass of tangled root stocks, which almost completely fill the soil. In this condition, it is utterly useless to try to kill quack grass. Success can be obtained, by any practicable means, only by attacking the grass at a time when its root stalks are at or near the surface. The secret of success lies in making the attack on the grass when there are no deep root stocks to contend with.

**A SUITABLE ROTATION.**

The rotation advised for quacky land is as follows: Corn followed by peas and oats, for grain or hay, followed by timothy or clover with quack grass growing in it, the timothy and clover being left down for two years. It is advised that the disc harrow be used in preparing the seed bed instead of plowing for the oats and peas in order to avoid plowing down the root stocks of the quack grass. The following summer the timothy and clover should be cut early the first time so as to ensure that no quack grass seed develops. The fourth summer, the timothy and clover field is to be pastured and if the stock does not keep it eaten down pretty close, the field should be clipped so as not to allow the quack grass to make much growth. If hay is needed, an early crop of hay may be cut the second year. About the middle of



**Farmers Learn the Principles of Scientific Drainage at First Hand**

Actual drainage demonstrations given in the field, are an important feature of the work of the surveyors sent out by the Dept. of Physics of the Ontario Agricultural College. The above illustration, taken on the farm of Mr. Pollard of Durham Co., Ont., shows the interest which these demonstrations create.

underdrainage. By actual demonstration, he showed how the proper direction for the drains was ascertained also the depth and fall for the tile. These demonstrations being held in fields where drainage is to be done are of great value since farmers can see with their own eyes just how the work is planned; it makes a much greater impression upon him than if they were to read it in a bulletin. These demonstrations are being held in various parts over Ontario, and are productive of much good.

**How to Kill Quack Grass**

Unless one understands how to deal with quack grass, the fight against the pest is practically hopeless. During the past two years, Mr. J. S. Cates, of the office of Farm Management, U. S. Department of Agriculture, Washington, has studied the habits of quack grass and from this study has demonstrated the effectiveness of a particular rotation in practical use. The principle involved is as follows: The quack grass is a pest because of its underground stems, which are capable of throwing up a new plant from each joint. Ordinarily, when the land is not disturbed, and especially when the grass is kept cropped pretty closely, these underground stems stay very near the surface; but when the ground is plowed five or six inches deep, as it ordinarily is for spring crops, the underground stems are turned to the bottom of the furrow slice, and during the succeeding sum-

July or first of August, plow the fourth year field as shallow as possible, two or three inches, in order to turn up all the root stocks.

The early treatment of the field ensures that all the root stocks will be very near the surface. The plowing being done at a time when the new root stocks have not yet formed for the season, the old root stocks being turned up at this time and not allowed to grow any more, will die before the following spring. It is necessary that the land should be harrowed frequently after the plowing so as not to allow any growth of quack on it before the cold weather. The land will then be in good shape for crop the following year.

**Making a Great Spread.**—The manure spreader spreads fertility over barren fields; it eventually spreads the crop yield into larger proportions; it spreads ease and comfort over an effortless task; it spreads granaries into larger size and the farmer's bank account over more pages and into larger figures; it spreads happiness in the mind of the farmer and his hired larger yields and better assurance of soil of every tiller of the soil who has entered into the possession of a manure spreader. That's what the spreader does.

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



**The Cows on a Thousand Hills**

Get Full Credit When the

**DE LAVAL Cream Separator**

SKIMS THEIR MILK FREE BOOK

**THE DE LAVAL SEPARATOR CO.**

173-177 William St. MONTREAL

WINNIPEG

VANCOUVER

**SUMMER PREMIUM TALK**

**THIS USEFUL FOOD CHOPPER GIVEN AWAY**

CHOPS EVERY VARIETY OF FOOD

- Meats
- Fruits
- Vegetables
- Nuts
- PULVERIZES
- Crackers
- Spices
- Stale Bread
- Etc.
- GR TES
- Horseshodish
- Cocoanuts
- Chocolate
- Etc.



**Save Yourself Work This Summer**

Send us Three New Subscribers to Farm and Dairy, at \$1.00 each, and we will send you Free, this excellent Food Chopper, complete.

**DESCRIPTION.**—It has only two parts, the case and the roll, and can be taken apart for cleaning. Four knives are supplied with each machine: to cut coarse, to cut fine, to pulverize, and to make nut butter. Substitution of one for another can be made without taking the cutter apart. Any particle of food which can be cut with a chopping knife, can be minced with this machine more quickly, quietly and thoroughly. Working against the steel disk the knives sharpen themselves. The cutters are nickel-plated; all other parts of the machine heavily tinned. Constant use keeps the cutters sharp.

Circulation Manager

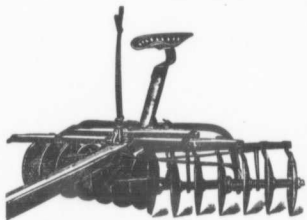
**FARM AND DAIRY**  
PETERBORO, ONT.



# EATON'S FARM IMPLEMENTS



## "WORK WELL" DISC HARROW



Our Disc Harrow is made of the best of materials and embodies all the latest improvements. The Harrows are steel throughout, with ball and roller bearings. The Scrapers work freely (we use a patent disc cleaner). The Seat is within easy access of stalling and scraping levers. The Hitch is well back, leaving little weight on horse's necks.

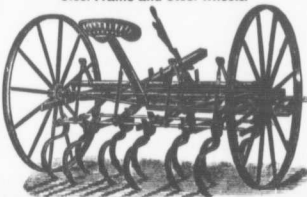
N2-214, 18 discs, 16 in. diameter, weight 400 lbs. Price delivered in Ontario..... 22.00  
Delivered in Quebec and Maritime Provinces, extra..... 1.25

N2-216, 14 discs, 16 in. diameter, weight 425 lbs. Price delivered in Ontario..... 24.75  
Delivered in Quebec and Maritime Provinces, extra..... 1.35

## DIAMOND CULTIVATOR

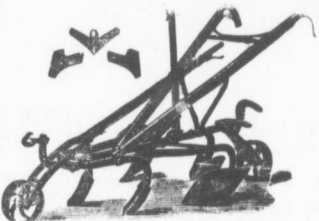
Steel Frame and Steel Wheels.

The Frame is of channel steel. The Wheels are of steel, well constructed and of good height. The Teeth are of finest tempered spring steel and fitted with double points, which may be replaced without buying whole new teeth. There are three rows of these teeth. The Pressure Springs are made of tempered steel wire, which are less liable to break than flat springs. This Cultivator is easily operated, and is specially built to do its work in the hardest and stiffest of soils.



N2-218, Weight 565 lbs. Price delivered in Ontario..... 32.25  
Delivered in Quebec and Maritime Provinces, extra..... 1.75

## THE SCUFFLER



This Scuffler is made entirely of steel, excepting the handles, which are made of the best oak or white ash, and are finished with oil and varnish. This is absolutely the best value on the market to-day. It has five teeth, as shown in cut, also rear depth wheel and three extra teeth, making eight in all.

N2-222, Weight 85 lbs. Our price delivered in Ontario..... 7.00  
Delivered in Quebec and Maritime Provinces, extra..... 95c

## Acme MOWER FOR 1910

NOTE PRICES FOR DELIVERY TO YOUR NEAREST RAILROAD STATION



43<sup>00</sup>

We can furnish Repairs at any time

Roller Bearing

The Acme Mower has been thoroughly tested and has proved one of the best on the market. No expense has been spared in making it superior in every detail. The bar is of cold rolled steel and is made with a smooth top, the nuts being below. It has a counter-balanced spring which assists in handling the bar. The bar can be arranged not to engage in any of the patches. The pitch is extra long, has steel jaws and trace leading. The cut is 5 feet wide and the gearing has only four wheels, a distinct advantage. Weight 75 lbs. Our price delivered to your nearest railroad station in Ontario..... 43.00  
Delivered in Quebec and Maritime Provinces, extra..... 2.25

## OUR VALUES ARE UNSURPASSED

### WE CAN SAVE YOU MONEY

Coupled with the high quality of EATON farm machinery there is another equally attractive feature—namely, our low prices. They are easily accounted for and easily understood. We have no agents' commissions to pay or no expenses of any travelling salesmen to provide for. We do not take your old machinery off your hands and run the risk of making too large an allowance for it and thereby lose money. We do not sell on credit consequently we never contract bad debts. We buy in enormous quantities for spot cash, and consequently save all cash discounts. When you buy from EATON'S you reap the benefit of all these advantages as they are reflected in the low prices we quote to you.

## DIAMOND BRAND MANILLA BINDER TWINE

8<sup>00</sup> FOR 100 LBS. DELIVERED IN ONTARIO

Our Binder Twine is made from first quality manilla and long fibre sizal, and will measure 550 ft.

to the pound. It is of superior strength and will test 135 lbs. or more. It is put up in 5-lb. balls, 50 lbs. to the bale, is covered with canvas and lashed with 22 ft. good rope.



We

guarantee

Diamond

Binder Twine

to be proof

against destruction

by grasshoppers, crickets

and insects of all

kinds, due to a preparation

to which each ball of twine

is subjected. Every ball is

inspected and tested. It carries

an evenness throughout which

makes it work easily on the

machine without knotting or breaking.

8<sup>50</sup> FOR 100 LBS.

IN QUEBEC OR MARITIME PROVINCES

## SATISFACTION GUARANTEED OR YOUR MONEY BACK

Realize what this means—consider the protection it affords—think of its importance to you. If you are unfamiliar with EATON merchandise, EATON prices, EATON quality, EATON values, or EATON service, send us your order and take advantage of them. After you receive the goods you have 10 days to test them in every conceivable manner. While doing so ask the opinions of your family, your friends, your neighbors, and if a single person says that my article which you have purchased from the T. EATON Co. is not absolutely and positively a genuine value, send it back to us at once and we will refund your money in full, without hesitating, without quibbling, without questioning. Your word is law, your word is final; from this rule there is absolutely no exception.

## 1910 MODEL TOP BUGGY

65<sup>00</sup>

Our 1910 Model Top Buggy is made by men who know all the requirements that go to make a buggy strong, durable and easy running. The finish is of the very best and all parts are made in proper proportions, nothing but the best of seasoned woods being used. It has 1,000-mile dash roof axles, metal rail around dash top, leather trimmed, belows back and battery loop. Shipping weight 675 lbs.

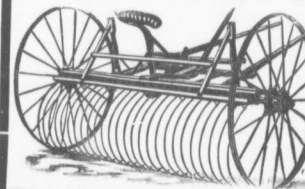
N2-112, Complete, with enamelled tipped, patent leather trimmed, quick shift shafts and steel tires. Delivered in Ontario..... 65.00  
Delivered in Quebec and Maritime Provinces..... 2.25

N2-114, For pole, well braced and including whitewash and neck yoke, add to above price..... 7.50



DELIVERED TO YOUR NEAREST RAILROAD STATION IN ONTARIO

## Acme STEEL SULKY RAKE



This Rake is made with steel wheels. It has 26 teeth, and where the teeth are fastened angle steel is used. The shafts on our rakes may be used for either one or two horses.

N2-208, Width 8 ft.; No. of teeth 26; Weight 410 lbs. Delivered to your nearest railroad station in Ontario..... 21.75  
Delivered in Quebec and Maritime Provinces, extra..... 1.25

N2-209, Width 10 ft.; No. of teeth 22; weight 465 lbs. Delivered to your nearest railroad station in Ontario..... 24.00  
Delivered in Quebec and Maritime Provinces, extra..... 1.40

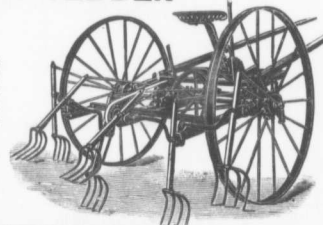
## ALL STEEL HAY TEDDER

Note Prices for Delivery to your Nearest Railroad Station

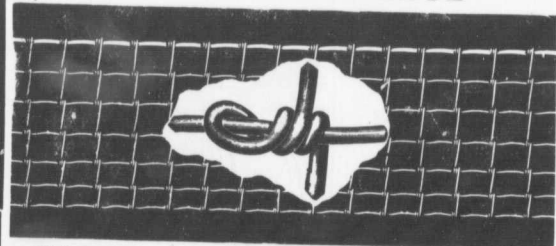
By using the Hay Tedder, hay that has been cut in the early morning can usually be dried and put under cover the same day, thus avoiding much labor and a possibility of loss from bad weather. It has been thoroughly tested, and is highly recommended by those who have tried it as a perfect machine.

N2-220, Shipping weight 670 lbs. Price delivered to your nearest railroad station in Ontario..... 37.00

Delivered in Quebec and Maritime Provinces, extra..... 1.75



## WOVEN WIRE FENCE



This fence is all No. 9 galvanized wire. It has the only one-piece lock on the Canadian market. The upright wire starting at the top lateral extends to the bottom lateral, forming the lock and completing the stay in the one unbroken piece of wire.

With 24-inch Stay

No.	No. of Horizontal bars	Height in inches	Shipping weight per rod	Price per rod delivered in Ontario
N2-326	5	36	5 1/2	26c
N2-305	6	42	8 "	30c
N2-327	7	48	8 "	35c
N2-328	8	46	10 "	38c
N2-329	9	50	11 "	42c

For delivery in Quebec and Maritime Provinces, add 2 cents per rod to above prices.

OUR COMPLETE LINE OF FARM MACHINERY IS LISTED IN OUR SPRING AND SUMMER CATALOGUE. WRITE FOR A COPY TO-DAY.

THE T. EATON CO. LIMITED  
TORONTO CANADA

TAKE ADVANTAGE OF OUR WONDERFULLY LOW PRICES AS THE QUALITY OF EVERY ARTICLE IS FULLY UP TO THE EATON STANDARD.





## 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.

### Centralization Recommended

The centralization of creameries in Saskatchewan was strongly recommended by Hon. W. R. Motherwell, Minister of Agriculture, at a recent dairy convention held in Saskatoon. Under the present system the Government pays shipping expenses on cream shipped from any point in Saskatchewan to the nearest creamery in the Province. The shipment of cream to large central creameries is more profitable to the farmer than were they to establish numerous smaller local creameries.

The advantages of centralization of creameries were shown by a reference to the creamery business of Manitoba. Of the 30 creameries in Manitoba last year about one-half of the butter made was turned out at the creameries at Winnipeg and Brandon. In the Province of Alberta there are 25 creameries; four of these manufacture nearly half of the entire creamery output. Centralization greatly reduces the cost of manufacture.

The idea of centralization as recommended by Mr. Motherwell was endorsed by Mr. W. C. Paynter, president of the Tantallan creamery, one of the finest in Saskatchewan. He approved of some system of Government supervision in the placing of creameries and recommended that before the Government should undertake to grant financial assistance to any proposed creamery, the company should be required to show that a good share of its stock has already been paid up.

Other speakers at the convention were J. Burton, Churchillbridge; Prof. W. J. Rutherford, Regina; Mr. Zuffelt, the new inspector of creameries for Saskatchewan; H. C. L. Leake, M.L.A. for Lloydminster, and W. A. Wilson, Superintendent of Dairying.

### Why Cream Tests Vary

Variation in the tests has caused much dissatisfaction in the selling of cream. When the cream is from the same cows, which have been fed the same ration and milked by the same man, and when the same separator is used, the farmer naturally thinks the per cent. of fat in the cream should remain the same.

Errors are often made in making tests, especially in taking the sample, but variations constantly occur that are due to other causes. The most common causes of these variations, as pointed out in a circular, No. 37, by Prof. C. H. Eckles, of the Missouri Agricultural Experiment Station, Columbia, Mo., are as follows:

1. Variations in the speed of the separator.
2. Variation in temperature of milk separated.
3. Rate the milk flows into the machine.
4. Amount of water or skim milk used in flushing out the bowl.
5. Change in the richness of the milk separated.
6. Adjustment of the cream screw.

Change in the speed of the separator is the most common cause of variation. The greater the speed of the separator, the smaller the amount of cream and the higher the per cent. of fat.

Again, the temperature of the milk separated varies on the farm from day to day. If cream tests 30 per cent. when the milk is separated at 90 degrees, it may test as high as 40 per cent. when separated at 70 degrees. Under average conditions on the farm, however, the variation in fat due to change of temperature will not amount to more than three or four per cent. A third cause of variation is found

in the rate at which the milk flows into the machine. If less than the regular quantity flows into the bowl, the tendency is to increase the per cent. of fat in the cream.

The richness of the milk separated affects the richness but not the quantity of cream. The richness of a cow's milk depends on inheritance and can not be changed permanently by feed.

Small variations are likely to occur from the other causes suggested by Professor Eckles. By the use of an ordinary Babcock testing machine and by measuring the sample of cream into the test bottle with the same pipette as is used for measuring milk, any farmer can make a test of his cream that will satisfy him as to the accuracy of the test he receives from the cream buyer.

### Wash the Separator Each Time

People must needs stretch their sense of what is right and proper when they are content not to wash the separator after each and every time it has been used for separating milk. Because the parts are concealed and so do not show from the outside their need of being cleaned, some people have become very lax in this matter of washing separators, and this fact is responsible for much of the poor quality cream delivered to the creameries of this country.

Anyone who has ever washed a separator knows how badly it is in need of such attention after each and every time it has been used for separating milk. Any filth that the milk contains is by the centrifugal force generated in the machine thrown from the milk, and this all remains in the machine until washed or is scraped out by hand. Running water through by the painful has very little effect. The solid matter will remain in spite of water.

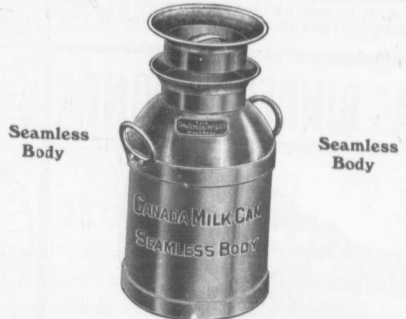
This solid matter contains myriads of harmful bacteria which commence their work immediately if the temperature is right, and it is sure to be at this season of the year, and they soon put the separator in a condition where it is practically impossible to clean it properly with a single washing. We have altogether too much of washing separators only once a day, and less frequently. It is high time that we each and all realize our responsibility when caring for the cream separator.

Aside from our duty in this particular, there is always a possible chance of embarrassment owing to a Govern-

ment inspector calling to inspect the sanitary condition of the machine. In what condition would he find your separator?

# BUY THE CANADA MILK CAN

The Most Sanitary Milk Can Made



Seamless Body

Seamless Body

### Holds eight gallons Imperial measure

The body is pressed out of one piece of 18 gauge steel plate—retained. It is entirely smooth on the inside. Has no seams or corners for dirt and sour milk to collect in.

Easily kept clean and sanitary.

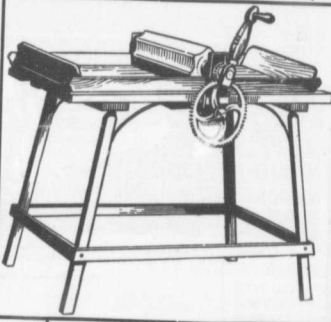
The bottom is well protected by a heavy welded hoop and the can is further strengthened by an additional hoop which encircles the body at the top. It is also fitted with a seamless cover which fits tight and flush with the top of the breast, preventing the milk from splashing around in transit. Handles as desired.

CANADA MILK CANS are made by:

**The Thos. Davidson Mfg. Company, Limited**  
Montreal & Winnipeg

And are Superior to any Foreign Milk Cans.

If your Dealer does not Handle these Cans, write us direct. A Post Card will bring you full information.



## THE NATIONAL BUTTER WORKER

THE NATIONAL MFG. CO., Ltd.

FACTORIES:—Ottawa and Brockville

Write to us for full particulars; we will gladly give information and send our Booklet Free on request

Head Office, OTTAWA

BRANCHES:—Regina, Sask., Edmonton, Alta., Moncton, N.B.

June 9, 1910.

FARM AND DAIRY

Cheese Department

Makers are invited to send contributions to this department, to ask questions, suggest subjects for cheesemaking and to refer to The Cheese Maker's Department.

Prepare for Warm Weather

Frank Hens, Chief Dairy Instructor for Western Ontario

Western Ontario cheese, up to the present time, June 1, have with the few exceptions been of fine quality. When everything is going along smoothly we are able to get a little careless, then warm weather suddenly and we have some of the old troubles to contend with, and perhaps a few new ones. It usually takes some little time to adjust ourselves to the changed condition. The milk from some dairies arrives at our factory over-rimed and tainted, some open off-flavored cheese are reported night by night. We wake up to the fact that the difficulties must be met and overcome as our cheese during the hot months. Nature does so during the hot months. weather in the way of cooling the milk, preventing taints, heated cheese, and so forth, that we hardly realize the necessity for greater care during warm weather. We are brought up short with complaints on quality.

THE PATRONS.

Every patron should build a milk-house, containing a tank preferably of iron to which to cool the milk. It will cost very little and will save much time and worry. Cool the night's milk as quickly as possible to 60 degrees by placing the can in the tank and cover the cans. As soon as milking is finished do not require dipping or pouring. Immediate cooling every night is the important point. If you cannot afford a milk-house, at least provide a tank or tub in which to place the cans surrounded with cold water. If you have the water a sufficient number of times monometer, it costs very little and it will pay.

Encourage your neighbor to follow these methods, point out to him that it must be mixed and that you do not intend that he shall lower the quality of your milk by neglecting his own.

CARE OF THE CANS.

Pay particular attention to the scalding and washing of the cans, use a brush for washing. Milk cannot be free from taint, and in proper condition for making finest cheese if stored in a can not properly washed. Discard the old rusty can. No person can wash it properly. It has served its time, and since becoming rusty has lost enough dollars through tainted milk to buy many new cans. No cheesemaker can possibly make fine cheese from milk that is over-ripe or tainted, then why attempt to supply milk that has not least a touch of cheese and less cheese per 1000 lbs of milk.

Let every patron do their best to secure for their factory a reputation for finest cheese, which can only be brought about by each patron exercising care in the production of the milk.

REJECTED MILK.

Do not be annoyed and talk of going to some other factory if some morning the cheesemaker returns the milk. He would not do so if he thought it possible to make good cheese from it. He must be the judge of the milk, and although anxious to secure all the justice to himself and good quality, in others he is obliged to reject sour and tainted milk. He has no "grudge" against you. Remember it

is far better that a few cans of tainted whole vat of milk should be spoiled than the whole of the other factory has no desire to take sour or tainted milk; then why expect him to accept what your own maker tells you is unfit for making fine cheese? Instead, then, returned look for the cause and remove it.

The Dairy Instructors will come to the farm and help the patrons in every way possible, giving suggestions and offering remedies for difficulties, which may be met with in handling the milk.

THE CHEESE MAKER.

Cheese-makers should keep everything in and about the factory clean and tidy, then insist on the patron sending sweet clean milk in bright cans. If the whey has to be returned, send it home clean and sweet; properly pasteurized if possible.

Be firm but courteous with the patron. A man who loses his temper will afterwards regret. Reject milk fine cheese. Reject milk from localities where competition is keen and a talk about disposing of the milk in any other way, but this does not do away with the fact that milk is an article of food and must receive some care, whether it be made into cheese or some other dairy product.

COOPERATE WITH MAKERS.

Do not take in milk rejected at another factory. You are not likely to make any better cheese out of it than the maker who first rejected it. Cooperate with your neighboring makers on this point.

Use the curd test on tainted milk and explain to the patron what causes on the mind of the patron the importance of cooling the milk and clean methods in production.

Visit as many of your patrons as possible. Have the Instructor do so also. A few words of advice from yourself or the Instructor will often save many dollars. It is the business of the Instructor to improve the quality of the milk, of the cheese and all you can. Remember the future of the business depends on quality. Look quick to note the necessary changes. Be in method to note this condition.

Let everyone put forth their best efforts to make this year's cheese the very best on record.

Responsibility on Patrons

Editor Farm and Dairy.—The only fair way of dealing with the patrons relative to their interests in the products of the cheese factory is to pay them for their milk according to the test on their cans. The system now so generally in vogue of weighing the milk is as much astray as is buying eggs by the dozen. I trust that in the near future a change will be brought about and that our patrons will all realize their responsibility in this matter of paying for their milk.—John Hetherington, Frontenac Co., Ont.

Ten Commandments

1. Thou shalt arise early in the morning, and deliver thy milk to the factory, for he that goeth late causeth the cheese maker to use much profane language.
2. Thou shalt not put all the dirt that thou canst brush off the cow into the pail.
3. Thou shalt not take any cream from thy milk for thy tea or thy coffee, nor shall we gettest thy dividends, it more milk here for a pound of smite than in any other manner and then shall all the cheese maker arise and smite thee to the earth.

4. Thou shalt not put water into thy milk, nor thy maid servant, nor thy milk maid servant. Hearken unto it if thou do this base thing.

5. Thou shalt not leave dead carcasses to rot near the barn, for the carcasses thereof tainteth the milk.

6. Thou shalt not bring into the factory any tainted or sour milk, nor has lately calmed, for from such milk cometh lively disease.

7. Thou shalt not carry off more whey than thy share, lest one should say to the other concerning thee "Lo, for another!" One hog doth carry food

8. Thou shalt cause thy cans to be washed every day, and the seams and inside in my sight, and I will visit my wrath on him that bringeth it.

9. Thou shalt not bother the cheesemaker, saying, "Why shall I receive my pay?" for verily I say unto you he knoweth not, neither careth he.

10. Thou shalt not say one to another "Lo! have not these Philistines a soft snip; they get big wages and that is a whopper. They get up early and work until late, moreover they work on the Sabbath, for which the Lord hath no mercy on them."—Cortsey Job W. Taylor.

Mistake in Price.—The advertisement of Farm and Dairy clubbing off of page 19 of the April 28th is printer's error, gave the price of Farm and Dairy, and the Home Journal \$1.35. The price of each of these magazines is \$1 a year. The two can be secured through a club by sending Farm and Dairy \$1.35.

Farmers Take Right Stand

Canadian farmers rightly insist that a cream separator which contains neither disks nor other skimming force of common, complicated machines, separator has most modern. They believe such a separator is the best. This is common sense and explains why Canadian farmers are buying simple

Sharple's Dairy Tubular Cream Separators

**Dairy Tubular Cream Separator**

in preference to disk filled or other common, complicated machines. The illustration shows all there is to the Sharple's Dairy Tubular cream separator.

disks nor other contraptions, produces twice the skim, wears a lifetime and is several times easier to clean than common separators.

The World's Best. The manufacture of Tubulars is one of Canada's leading industries. Sales easily exceed most, if not all other cream separators that in any one case of such machines sell.

Write for Catalogue No. 233.

**30 Yrs**

**THE SHARPLE'S SEPARATOR CO.**  
TORONTO, ONT. WHIMPEY, MAR.

**CALVES RAISE THEM WITHOUT MILK**  
Booklet Free  
**STEELE, BRIGGS SEED CO., LTD.**  
TORONTO, ONT.

**Steel Tanks for Cooling Milk**

THE ONLY way to make sure that your milk will not sour-the only way to make class condition-is to cool the factory in first-60 degrees immediately after milking. To enable you to do this handily we have made a steel cooling tank after Prof Hurr's design. It works perfectly, and the warm water-cooling it at the top. Heavy galvanized, water-tight, easy to keep clean. Made in three different sizes.

**THE STEEL TROUGH & MACHINE Co. Ltd.**  
TWEED, ONTARIO.

**Why Don't You Get A Bigger Price For Your Milk?**

There are thousands of dairy-farmers using the Root Sanitary Milk Cooler and Aerator, and they are getting big prices for their milk simply because they can guarantee it absolutely pure and sweet and that it will keep sweet for at least 48 hours. Why don't you do the same when the price of a Root Cooler is so small? It really pays for itself in a few weeks. And don't forget that the Government authorities are testing the milk supplied all over Canada—stringent laws are now being considered. The

**ROOT SANITARY MILK COOLER-AERATOR**

will keep the milk sweet for 48 hours because it kills the animal heat quickly and cools the milk to the same temperature as cool running water. The water is admitted at the bottom, flows through the bottom tube, then up through the top tube, and so on kept perfectly cold all the time, and as they are directly circulating the milk flows down then slowly, reaching the milk in a thoroughly mixed and aerated. Cylinders are made of heavy copper, built up with joints and gaskets stand to stand heavy water pressure. Perfectly clean in 5 minutes. Made in Canada—write for a free catalogue and price—very different from any other. Should have a Root Cooler—It's a big money maker. Write:

**W. A. Drummond & Co., 117 King St. E., Toronto**

"It's so easy to clean."



### Characteristics of Angora Goats

I would like to get the opinion of Farm and Dairy and of its readers on the following subject. The Angora goat appears to be very popular in many parts of the States. Here in Ontario we never hear of them. It is claimed that they prefer browse rather than grass for feed. If so they will be very useful here and wherever there is waste land or rough land covered with scrubby bushes. I have a piece of natural pasture land partly cleared. It is too tough and stony to plow. Scrub and berry bushes have crowded out the grass, so that where a few years ago it used to pasture eight cows, now there is not enough grass for that many sheep.—H. C. Kimmont, Ont.

Angora goats are browsers, whereas sheep are grazers. Angoras will pass by growing grass and grain, for wild carrot, burdock and thistle. It is said of them that they will eat every known weed in New England and every variety of bushes, oak, elm, birch, maple and various kinds of evergreen, fir, spruce and hemlock. In fact all kinds of bushes and weeds they prefer to grass and will thrive best on them. Hence an important usefulness of the Angora goats in subsiding such slash as exist in Haliburton.

Angoras thrive in almost every climate. They do well in all parts of the United States. And it is rather remarkable that they have not become more generally known in Canada. The beasts are extremely hardy, multiply rapidly and require little care and cost almost nothing to keep. Their meat is excellent food. It is hardly distinguishable from lamb. Their skin furnishes a leather valuable for certain purposes, such as the linding of books. The pelts of these animals are coming into extensive use for robes and rugs, for which they are excellently adapted, the fleece being so beautiful in its natural state and taking dyes readily.

Angora goats in the United States in 1900 produced about \$1,000,000 worth of mohair. It has wonderful fibre—strong, fine and with the lustre of silk. As it comes from the animal, it is in long, wavy-white ringlets, which look as if they had been curled on a curling stick. So clean is the beast that commonly the hair does not need to be washed before being spun.

The demand for mohair vastly exceeds the supply in the States, and it is said that anyone who would take the trouble to produce it need not be at a loss for a market. They are shorn in the spring in the same manner and in the same manner as sheep. A fleece of mohair weighs from 3-13 to 4-12 pounds on the average good goat. Extra fine and pure bred goats often shear eight and 10 pounds, which is worth from 26 to 52 cents a pound in the States. There is no market in Canada for mohair.

Being a very hardy and self-reliant animal and a browser, Angoras are especially adapted to rough districts which are of no value whatever to any other industry. They are comparatively free from disease. A sheep fence will hold them. They crawl through a fence rather than over it. There is no reason whatever why Angora goats should not become common on the waste lands of Ontario.

[Note.—Before deciding to go in for Angoras, Farm and Dairy readers should take note of another article on this subject published in this issue.—Editor.]

### Not Enthusiastic About Angoras

The following letter, from Mr. Ezra Churchill, a Nova Scotian, who has had some experience with Angora goats, and which was written to Mr. T. D. Wardlaw of Toronto in connection with the article on Angoras published elsewhere in this issue, should

### FOR SALE

For \$20.00, I can sell you the best automatic lift drop head sewing machine. For particulars apply to W. B. ROBERTS, "narta, Ont.

be noted by anyone who is thinking of adopting this class of live stock: "Re Angora goats, I do not know what good I can say about them, only they are very handsome. I had a flock of 25 and they cost me about \$40 each, landed here."

"I am rid of them now, thank the Lord. I gave the last four away to my enemy, and he has offered me \$10 a piece if I will take them back again, and he is pretty nearly lost his life."

"Do not let me discourage you; perhaps they are just what you want, but my opinion is that they are no earthly good, and a man stands a pretty poor show of getting to heaven if he has to look after them."

### Co-operative Egg Circles Formed

(Continued from page 3)

be able to watch the candling of the eggs when they so desire. When eggs are rejected they will be taken back to the members of the circles to whom they belong, who will be shown what is wrong with them. Payment for the eggs is to be made once a week. A central committee is to be appointed, composed of representatives from the local circles. This central committee will have full charge of the sale of the eggs and will make all arrangements with the buyers. At first it is proposed that the eggs shall be graded in Peterboro by the representative of Gunn, Limited, under the supervision of the officers of the central committee. It is expected that ultimately the number of eggs handled will be sufficient to warrant the farmers engaging a man of their own to grade the eggs before sale.

### RULES AND REGULATIONS.

The following rules and regulations concerning the management of the circles which have been adopted and which have been signed by all the members of the different circles, are only temporary in character and will be amended and improved as circumstances warrant.

1. That our organization be called the Central Smith Circle No. 1, etc.

2. That our officers consist of a chairman or president, a secretary-treasurer and a board of three directors.

3. That the duties of the officers shall be as follows:

(a) To appoint or elect two of its officers to act on the central board.

(b) To attend to any business that may arise in connection with the working of the system.

(c) To keep an outlook over conditions generally.

4. The membership of the association shall be \$1.00 per annum to be held, used and disposed of as the directors see fit from time to time.

5. That the circles as now organized shall have one general superintendent, to be appointed by the buyers, whose decision shall, in regard to the quality of the eggs delivered, be considered final.

6. That anyone may become a member (upon payment of fees) who is interested in the production of better quality poultry products and who will agree to conform to the best of his or her ability with the rules and regulations as set forth, or as may be set forth by the executive from time to time.

7. Rules and regulations pertaining to eggs.

(a) Only eggs gathered from regular nests may be delivered.

(b) Eggs must be delivered at least twice a week except in winter months, when they must be delivered at least once a week.

(c) Eggs from found nests must not be delivered.

(d) Real small eggs or over-sized eggs shall not be delivered.

(e) Rough shelled or ill shaped eggs shall not be delivered.

(f) Stale eggs shall not be delivered.

(g) Only artificial eggs may be used as nest eggs.

(h) All male birds shall be killed or

removed from the flock as soon as the hatching season is over—June 1st.

(i) All eggs produced by said flock shall be sold through the circle. This applies for one year only.

(j) Members may deliver eggs from only his or her own flock.

(k) Notwithstanding anything heretofore set forth, patrons may keep for their own use any eggs required and must not sell any eggs through the circle that do not comply with these rules and regulations.

(l) Eggs as gathered must be kept at an even temperature as near to 60 degrees as possible and be kept free from draft and dampness.

(m) That any bad eggs in any way delivered and paid for will upon return of same to the producer be accounted for if possible and the loss made good to the buyer.

8. That we as members will do all in our power to make this a success from a producer's standpoint.

### PROBABLE DISCUSSIONS.

The discussion of the foregoing rules that took place at each point drew out an immense fund of valuable information about the care of eggs and poultry that proved most interesting and instructive. Several old farmers stated that they had never learned so much about eggs and poultry in such a short time before. Some of this information will be given in later issues of Farm and Dairy.

Some of the officers elected were: Central Smith, J. A. McGregor, pres.; C. E. Moore, sec.-treas. Pine Grove—E. Jory, pres.; R. H. Little, sec.-treas. North Monaghan—T. D. Young, pres.; Wilbur Bennett, sec.-treas. Stewart's

—S. Matchett, pres.; M. Stewart, sec.-treas. Zion—Jno. Elliott, pres.

### GOOD MEN SUPPORTING IT.

The best indication that the movement is going to prove a success lies in the fact that in each district it is being supported by prominent farmers. Several of these farmers have had experience in municipal matters. All of them have taken hold of the project thoughtfully and with a full realization of what it means. They know, as do all the farmers and their wives who already have joined the circles, that opposition is likely to be encountered from those sources that so often seem anxious to prevent farmers uniting for their mutual benefit in matters of this kind. They have signified their intention of standing together in this movement and of not permitting themselves to be misled by false reports or by efforts that may be made to induce them to sell their products individually outside of their circles. A warehouse has been rented in Peterboro. It is expected that the collection and marketing of the eggs on the new basis will be started within the next two weeks.

An evidence of the importance that is attached to this movement was furnished last week when the editors, or their representatives, from The Farmers' Advocate, The Weekly Sun, The Canadian Farm and the Ottawa Citizen, visited Peterboro to find what was being done and manifested their interest by addressing one of the meetings. The readers of Farm and Dairy will be kept fully posted in regard to the movement as it progresses.

## THE HELP THE FARMER LONGS FOR



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It will cut ALL the grass whatever its condition or the condition of the surface of the ground. It is exceptionally light in draft. It can be stopped and started in the heaviest clay. The pull is direct from the whiffletrees to the main shaft on the cutter bar, thus eliminating side strains. The lift lever has lots of range of movement. The bearings are all equipped with Ball or Bearings or Removable Bushings. The FOOT LIFT is convenient, easily operated, and is balanced by a lift spring. THE GEARS are in perfect mesh and have lots of power.

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Before buying a mower be sure and see the agent and find out what a good proposition can be offered by

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## REFRIGERATORS AND ICE BOXES

More and more is the using of ice boxes or refrigerators becoming essential in our rural homes. Many farms homes of to-day are equipped already with this convenience. For the benefit of our readers who are thinking of so doing, we give a few hints and suggestions as to the construction and care of refrigerators in general.

## CONSTRUCTING AN ICE BOX.

In constructing a refrigerator or ice box, it is well to remember that it is wisest and best not to fill the walls with sawdust, or any other filling. Sawdust only acts as a conductor and will become damp and wet, thus rotting the walls of the ice box in a short time. Use dead air spaces between the walls. These dead air spaces are the best non-conductors of heat and cold, known to science. You can do this by using tongue and grooved sheeting with a ply of heavy paper. The spaces need only to be a half an inch apart, if space is a consideration.

In no case should galvanized iron or zinc be used as a lining to a refrigerator, although we realize that this is a common practice. They cannot be kept absolutely clean and sanitary and the oxidation which covers these linings is poisonous to the food. It will be apparent to all who study this point, that it is wrong to use such linings. No one would care to drink milk from a galvanized can, or use butter which had been kept in a galvanized box. Spruce wood is Nature's lining for a refrigerator. It is also a non-conductor of cold. It will not cause condensation when exposed to the outside warm air. It is generally supposed that a wood lining cannot be kept dry and that it will become destroyed in time. This is a false impression. It is possible to so construct a refrigerator as to keep it perfectly dry. There are refrigerators on the market which are lined with spruce and which have been in use for 25 years, and are perfectly sound to-day. Such a condition could not be possible, if there was any dampness regarding ice boxes constructed in this way.

Such a refrigerator is manufactured by The Eureka Refrigerator Company of Toronto. When a Eureka refrigerator is properly filled with ice, wet matches can be placed in the cooling chamber over night, or from ten to twelve hours, and the matches will be found perfectly dry upon removing, and can be ignited anywhere in the cooling chamber of refrigerator.

## CARE OF REFRIGERATORS.

One thing we can not lay too much stress on in regard to refrigerators, and that is cleanliness. They should be always kept clean. Another thing: Do not stint the ice supply. A well-filled ice box will give very much better satisfaction in every respect. The ice supply should never be allowed to become exhausted. If, however, for any reason the ice does run out, the contents of the refrigerator should be removed at once and doors opened. Otherwise, contaminated and spoiled as the circulation principles of a refrigerator will serve to bring about this condition quicker than some other receptacle where these circulation principles do not exist.

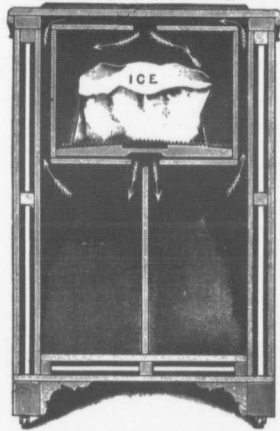
Before introducing food, air well the interior by opening the doors and lid, then fill box with ice, and allow to stand unopened several hours, opening the doors for a few minutes several times during the interval. Furnish ice liberally and regularly when the refrigerator is in use. Leave doors and lid open when without ice. Clean provision and ice chambers regularly

at least once a week. Remove and cleanse ice rack, and also see that drip pipe and trap are clear.

To purify the interior of a refrigerator that has become odorous from neglect, or other local cause, the following mediums may be suggested: Rub the walls with a damp cloth, moistened with warm soda water, or with water in which two tablespoonsful of sweet nitre to the pint has been put. Place in the storage chamber a saucer of charcoal, renewing or sunning it occasionally.

## DON'T'S.

Don't put in hot, steaming, or over-



An up-to-date Refrigerator Showing System of Circulation

The flues are so arranged that warm air passes from the provision chamber to the highest point over the ice, flows over the whole mass of ice, where it is cooled and freed from moisture, then passes under the ice rack where it is further cooled and flows naturally down the cold air flue into the provision chamber, which it rapidly fills, forcing the warm air up the flues on the sides to make another current.

ripe food or fruits. Don't cover the shelves with paper or cloth and obstruct the circulation, which has equality as much to do with preservative results as a low temperature.

Don't leave the doors open or ajar, while carrying articles to or from the refrigerator, or while chipping off ice for domestic purposes. Better keep a small box for that purpose, and not rob the refrigerator, charging it all to ice consumption, and letting in the warm air.

Don't starve the refrigerator. If its ice capacity is 75 or 100 lbs., don't expect it to run perfectly with 10 or 15 lbs., supplied irregularly. Don't put it in a cellar, laundry or other damp place, or on a porch exposed to sleet and atmospheric changes. It is made of kiln-dried lumber, and not guaranteed unless properly used.

Don't cover the ice with cloth, newspaper or other material to save ice, the function of which is to cool the refrigerator and create a circulation. Such a course may "save ice beautifully," but if you bottle up the cold air it cannot do its work, and your food will spoil. If you use newspaper you must expect the "sickly odor of printers' ink" and decaying paper, and the waste water outlet to become blocked.

Don't ignore these common-sense rules, and complain because the refrigerator smells musty, the drip pipe or trap becomes choked up, and water overflows into provision room, or doors swell and joints open because the drip (not green) stock has absorbed moisture. The user can avoid the cause of these troubles, but the manufacturer cannot.

## THE COOK'S CORNER

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

## CANNED RHUBARB.

It is an easy matter to can rhubarb. Pare fresh, tender rhubarb and cut in one-inch pieces. Pack closely in a jar and fill up full to overflowing with cold water. Allow the water to settle, then pour in more fresh water and make sure there are no air bubbles left in the jar. If the jars are sealed closely, same as for ordinary canning, rhubarb canned in this way will keep a year. Rhubarb can also be boiled with sugar, and canned.

## RUBARB PIE.

Skin and cut stalks of fresh, tender rhubarb in half-inch pieces, then measure out  $1\frac{1}{2}$  cups. Mix with a cup sugar with 2 teaspoon flour and 1 beaten egg. Stir the cut rhubarb into this and bake the mixture between two crusts.

## RUBARB SAUCE.

Peel and cut fresh, tender rhubarb into one-inch pieces. Put in saucepan with a very little water (since fresh rhubarb itself contains a large percentage of water) and boil slowly about 5 minutes, or until tender. Then move to back of range, add sugar to taste, stir carefully, and when the sugar is dissolved set away to cool. Rhubarb can also be baked in an earthen pudding dish. If baked slowly for a long time, it will have a rich, red color.

## STRAWBERRIES PRESERVED WHOLE.

Stirring washed strawberries about 20 minutes, adding no sugar. Then strain, and to each pt. of juice allow a pt. of sugar. Heat the sugar and add to the syrup when it is at the boiling point. Skim and let boil till thick, and then pour this hot syrup over whole hulled berries, which should be in readiness in heated glasses. When cold cover with branried paper and set in the sun daily for about a month.

## STRAWBERRY TARTS.

Line the sides of large or small pans or baking dishes with pastry and bake a light brown, then fill them with strawberry jam or fresh berries crushed and sweetened, and serve with a meringue or whipped cream.

## STRAWBERRY PRESERVES.

Allow 1 lb. sugar for each lb. fruit, and place together over a slow fire with no water. Be careful not to mash the berries when stirring, and when skimming is required set the vessel on back of the stove, so that the sugar may be on the surface. When the sugar is dissolved oil fast for 30 minutes. Then remove the fruit and place in jars. Boil syrup 5 minutes longer, pour over the berries in the jars and seal.

## STEAMED BROWN BREAD.

To 2 cups sour milk add 1 cup corn meal,  $\frac{1}{2}$  cup white flour, 1 cup rolled oats,  $\frac{1}{2}$  cup molasses, 1 heaping teaspoon soda, and a little salt. Steam 3 or 4 hours.

## ROLLED OATS DROP CAKES.

Soak 1 cup rolled oats in 1 scant cup hot milk. While this is soaking mix up 1 cup sugar,  $\frac{1}{2}$  cup butter, 2 eggs, 1 cup of raisins, 1 teaspoon soda, and 2 teaspoon cream of tartar. Turn on the rolled oats and add flour enough to make quite a stiff batter. Drop by spoonfuls in a well-greased baking pan and bake in a quick oven.

## ROLLED OATS CUSTARD PUDDING.

Soak 1 cup rolled oats in 3 cups hot milk for 2 hours. Add to this well-beaten eggs, a little salt,  $\frac{1}{2}$  cup sugar, and flavor with nutmeg. Bake about 30 minutes.

## OATMEAL MUSH WITH SLICED APPLES.

Slice any good eating apples into oatmeal dishes and pour hot mush over them. Serve with milk and sugar.

## Pictures of Royalty

Readers of Farm and Dairy will much appreciate the privilege of securing a fine lithograph picture 12x18 inches of the late King Edward VII., for the small sum of 25 cents, or a picture of both the King and Queen Alexandra, in return for one new subscription to Farm and Dairy. Pictures of the new King, King George V. and Queen Mary, will also be sent for one new subscription at \$1. State clearly which pictures are desired.

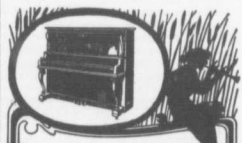
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## Develop the Social Side

There is no question whatever that the domestic life on the farm could be made more interesting than it is at the present time. There is too much farm drudgery unrelieved by the brighter side of social life. The unvarying round of monotony tends towards mental depression. The beautiful side of country life is not cultivated in the manner that it should be.—Dr. E. Ryan, Frontenac Co., Ont.

\*\*\*

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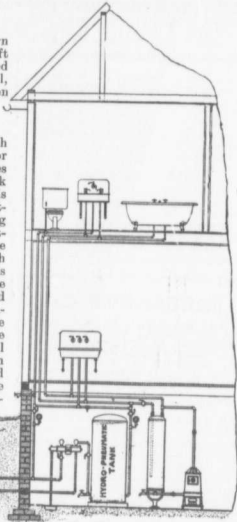
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109 A

**Plumbing with Power Force Pump**

This cut shows a system of modern plumbing arranged for hard and soft water. The hard water is supplied from either a deep or shallow well, and is used for laundry, kitchen and sanitary purposes in the house, and for watering, sprinkling, etc., out of doors. It is also used for operating a water lift which supplies soft water from a cistern for kitchen, laundry and bathing purposes by means of a smaller pneumatic tank located in the basement. While this system may look a little somewhat complicated, it is in reality very simple. Being positively automatic it requires no attention other than the oiling of the windmill. The pump is provided with a hydraulic cylinder which controls the operation of the mill by the rise and fall of the pressure in the hard water tank. The water lift is so constructed that when the pressure in the soft water tank equals the pressure in the hard water tank, the lift will stop working and will not start again until water has been drawn off and the pressure reduced. This will be found a very complete and satisfactory outfit for a country or suburban home, or for farmers who have stock or dairy farm and wish to enjoy all the advantages of modern plumbing in their homes. Where a windmill is not desirable, the system can be operated by a hot air pumping engine or gasoline engine.



have a pretty good garden and all the vegetables we want to use. We have a wire fence all around it, so hens or chickens cannot get in.

**ENJOYS HER HOME**

I think we have a very comfortable home and I don't want anything better. Mr. Begg wanted to go and live in the village this fall, but I would not go. I could not leave the home we built and the buildings and I want to spend my last days on the old farm home.

Our main house is 26 x 30 feet. The kitchen is 20 feet square with large pantry to the back of summer kitchen, which is 13 x 24 feet. The bath room is over the kitchen. We formerly had the cistern in the cellar but put it up on the kitchen stairs. I like it much better as there is no pumping. We only turn a tap and have the water. We have it all in one room over the kitchen. It makes a fine place for the hired men to sleep.

We have three bedrooms, two clothes closets and a large hall in the other part with a parlor, dining room and sitting room down stairs. There is a cupboard in the wall between the dining room and kitchen, about 8 ft. long. We like it very much as it takes up no room.

The veranda goes all around the house and kitchen. We have two large cellars, one under the kitchen for potatoes and vegetables. In the other we have a cupboard built in the wall for our preserves and syrup; apple racks and furnace. We have not used the furnace for a couple of years as we bought a heater and put it in the dining room and like it much better. We find it does not take so much wood.

Monday is always wash day and Tuesday, we iron. We do not bake our bread any more as the baker goes by twice a week.

**DAIRY FEATURES**

We ship our milk to Montreal, summer and winter and buy all of our butter. We do not have very hard work as everything is quite convenient. We always get up about five in the morning, milk the first thing and sometimes find it pretty cold getting up and going out to the stable, but do not mind it once we are there as the stable is nice and warm.

Mr. Begg put some hundreds of dollars on the stables and barns recently. He tinned all the outside with galvanized iron which adds much to the appearance as well as comfort. He also fixed a nice hen house. I am very fond of hens. Last winter I wintered about sixty and after keeping the house in all the eggs we wanted, I sold about \$70 worth, besides selling a lot of hens and chickens.

Our main house is veneered with brick. The kitchen is clap boarded and last year was painted white. Our wood shed and kitchen are shingled with Oshawa steel shingles.

**The Upward Look**

**A Simple Test**

"By this shall all men know that ye are my disciples, if ye have love one to another."—St. John 13:35.

What a simple test that is! And yet how searching! Into what unexpected groups it divides us. Whether or not we are Christians is determined not by whether we are Methodists or Catholics, Presbyterians, or Mohammedans. Not by whether we are rich or poor. Not by the clothes we wear, or the houses we live in, be they palaces or shacks. We may go to church regularly, say long prayers ostentatiously, give large sums of money for charitable purposes, and yet fail to pass this test. (St. Luke, 21, 1-4; 1. Corinthians, 13:3, rev. version), (St. Luke 12:9-14).

Christ knew that in our ignorance we would be apt to apply earthly tests to spiritual matters, and to prevent us from making grievous mistakes He warned us to be careful about the conclusions we reached. "Not everyone," He said, "who saith unto me, Lord, Lord, shall enter into the Kingdom of Heaven; but he that doeth the will of my Father, which is in Heaven." (St. Matt. 7:21), and the Father's will is that we shall love one another.

To-day there are those, just as there were in the time of Christ, who try to make out that the only way we can find God is by adopting some special creed or form of belief. That was not what Christ intended. He warned us against such when He said: "Beware of false prophets, which come to you in sheep's clothing, but inwardly they are ravening wolves." (St. Matt. 7:15). And then He told us how we can tell the true from the false prophets: by their lives; "Ye shall know them by their fruits."

And so it is with us. Unless we love one another our religion is vain. Unless we are unselfish, patient, humble and kind, in our daily lives, we will fail to pass the test which determines whether or not we are Christ's disciples.

"Be not deceived." The words which all of us shall one day hear sound not of theology, but of life; not of churches and saints, but of the hungry and the poor, not of creeds and doctrines, but of abelter and clothing, not of bibles and prayer-books, but of cups of cold water given in the name of Christ. "It is in the presence of humanity that we shall be charged. And the spectacle itself, the mere sight of it, will silently judge each one of us. Those will be there whom we have met and helped; or there the unspited multitude, whom we neglected or despised. No other witness need be summoned. No other charge than lovelessness shall be preferred against us."

"Beloved, let us, therefore, love one another; for love is of God; and every one that loveth is born of God and knoweth God. He that loveth not knoweth not God; for God is love." (1. John, 4, 7-8)—I. H. N.

**The Sewing Room**

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

**CHILD'S TUCKED GUIMPE 6628.**



This simple little guimpe that is tuckered to form its own yoke is always a pretty one for the younger children. This one is made with moderately full sleeves into hands and can be made either to the wrists or to the elbows as liked. It can be fastened with a collar or in Dutch style.

Material required for medium size (4 yrs.) is 1 1/2 yds. 21 or 24, 1 1/2 yds. 44 in. of banding and 3/4 yd. of edging.

The pattern is cut for girls of 2, 4, and 6 yrs. and will be mailed for 10 cts.

**BOY'S BLOUSE 6628.**



A great many boys prefer the blouse to the outing dress for general wear. It is comfortable and becoming and altogether desirable. It is absolutely simple and plain, genuinely masculine in effect and is finished with the patch pocket that is both useful and smart.

Material required for medium size (4 years), is 3 yds. 24 or 27, 2 1/2 yds. 36 in wide.

The pattern is cut for boys of 12, 14 and 16 yrs. and will be mailed for 10 cts.

**CHILD'S DRESS 6625.**



Dresses with shaped yokes below which they are full and soft are always attractive for little ones. This dress can be trimmed with gathered. The heading applied below the yoke and threaded with ribbon makes a pretty Empire effect, but is not necessary.

Material required for medium size is 3 yds. 24 or 27, 2 yds. 32, or 1 1/2 yds. 44 in. wide, with 2 1/2 yds. of edging 3 in. wide, 3 1/2 yds. of insertion and 1 1/2 yds. of banding. The pattern is cut in 1, 2 and 4 yrs. and will be mailed for 10 cts.

**FRENCH CHEMISE 6622.**



The simple French chemise is in great demand and can be finished simply with a hand scalloped edge and button holes through which ribbon is threaded, or it can be trimmed with lace, or embroidery applied over it. In the illustration it is held at the waist line by means of ribbon threaded thro' heading.

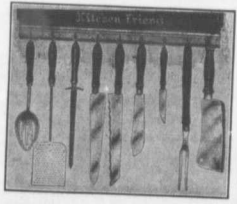
Material required for medium size is 3 1/2 yds. 32, 2 1/2 yds. 44 in. wide, with 5/8 yds. of insertion, 1 1/2 yds. of edging, 1 1/2 yds. of embroidery for frill, to trim as illustrated. The pattern is cut in three sizes, small, medium and large, and will be mailed for 10 cts.

**Hooks and Eyes**

Sew the eyes on the left front of waist, the desired distance apart, with the loops out far enough to make hooking easy, then fasten the right front carefully over the left, lapping as much as may be desired, turn waist wrong side out, put a hook in every eye, and sew them in position.

**Woman's Kitchen Friend**

This kitchen rack should be in every woman's home. You cannot afford to be out your work another day without it. All the articles shown are household con-



veniences. Handles are black, and well finished. All registration size and length. You can have this FREE for a club of two new subscribers to Farm and Dairy, at \$1 each. Get the boys and girls to work securing two of your neighbors to subscribe. It will surprise you how easily this can be done. Address Circulation Manager, Farm and Dairy, Peterboro, Ont.



AYRSHIRE NEWS

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

SPRINGFIELD AYRSHIRES.

A Farm and Dairy representative lately paid a visit to the farm of Messrs. Robert Hunter & Sons, Maxville, Ont.

A great number of Messrs. Hunters' cows are imported and are from the choice strains in Scotland.

They have a number of orders to fill from the new importation lately removed from quarantine and notes were published in a former issue.

RECORD OF AYRSHIRE COWS AND HEIFERS FOR 1909.

MATTEE CLASS.

Ayrshire 2nd, 2nd, 15587 - E. Cohoon, Hartsville, Ont., 15134 lbs. milk; 59.4 lbs. fat.

EASTLAKE



STEEL SHINGLES FIRE, LIGHTNING, RUST AND STORM PROOF

These shingles are made of a special quality of steel and are guaranteed to last for 25 years...

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

dissee Bros, Rothsay, Ont., 13536 lbs. milk. 529 lbs. fat. Maria, 15135 - Hon. Wm. Owens, Montebello, Que., 11423 lbs. milk; 413.7 lbs. fat.

White Heather, 17979 - James Beggs, St. Thomas, Ont., 15071 lbs. milk; 365.50 lbs. fat.

FOUR YEAR OLD CLASS. Molly, 27400 - E. Cohoon, Hartsville, Ont., 11268 lbs. milk; 372.42 lbs. fat.

THREE YEAR OLD CLASS. Canadian Princess, 23108 - A. S. Turner, Ryckman's Corners, Ont., 11577 lbs. milk; 351.91 lbs. fat.

Two Year Old Class. Berrie 16th of Neidpath, 21460 - W. W. Ballantyne, Stratford, Ont., 7426 lbs. milk; 330.70 lbs. fat.

Bestie 18th of Neidpath, 21461 - W. W. Ballantyne, Stratford, Ont., 6469 lbs. milk; 295.5 lbs. fat.

Neidpath Rose 10th, 21459 - W. W. Ballantyne, Stratford, Ont., 6442 lbs. milk; 355.90 lbs. fat.

Bestie 18th of Neidpath, 21461 - W. W. Ballantyne, Stratford, Ont., 6469 lbs. milk; 295.5 lbs. fat.

HOLSTEIN-FRIESIAN NEWS

MILK FROM A PHYSICIAN'S STAND-POINT

Holstein-Friesian breeders are to be commended for the aggressive advertising campaign, which they have conducted in re-choosing the qualities of the Holstein breed of cattle and of Holstein milk.

Milk is the natural food of man. No other one product contains the essential elements of nutrition so admirably combined.

FAT IN RIGHT PROPORTION. Holstein milk contains butter fat in the right proportion for human use.

STURDY AND SOUND. Fine Holstein milk is the ideal infant's food.

MILK VS. MEAT. Milk is superior to meat on general and scientific principles.

Canadian Ayrshire Breeders' Association. In conclusion, breeders and dairymen, duty and obligation to give priority to the Holstein breed.

tionized forms, and naturally the next step in the process, is resolution back into the original forms, from which they were successively obtained.

It is going too far to claim that the sturdiness and hardness of the people of the great dairying countries are not largely due to the intensive use of milk.

Official Records for March, 1910. (Continued from May 5) Helton Jay Post, 6 months and 1 day of age, 9.56 lbs. 3 years, 11 lbs. equivalent to 19.95 lbs. butter; 332 lbs. milk. Owned by W. H. Lipist, Beaton.

Oliver Merceus Post (9085) at 2 years, 6 months and 21 days of age, 9.2 lbs. butter, 64.1 eq. equivalent to 11.58 lbs. butter; 271 lbs. milk. Owned by H. A. Snyder, Burgessville, Ont.

Lady Poch Favorit (9383) at 2 years, and 2 days of age, 9.69 lbs. butter; 22.8 lbs. milk. Owned by Elias Snyder, Burgessville, Ont.

Weldon Pride (11590) at 2 years, 2 months and 18 days of age, at 2 years, 2 months, eq. equivalent to 10.09 lbs. butter; 319 lbs. milk. Owned by H. L. Lipist, Stratfordville, Ont.

May Echo (3372) at 9 yrs. 3 months, 11 days of age, 22.46 lbs. butter; 1.1 eq. equivalent to 20.59 lbs. butter; 616 lbs. milk. Owned by F. R. Mallory, Frankford, Ont.

Lady's Ark DeKok (9739) at 5 yrs., 11 months, 23 days of age, 15.30 lb. butter; 569.4 lbs. milk.

Thirty-day record at 5 yrs., 11 months, 23 days of age, 62.74 lbs. butter; 146.2 lbs. milk. Owned by Thomas Hartley, Downsview, Ont.





## HOLSTEINS

FOR SALE.—Cornelia's Poach, five times let prize bull at Toronto and London Fairs; also five of his sons, all from record of merit cows. Also females from record.

THOS. HARTLEY Downsville, Ont.

## LYNDALE HOLSTEINS

We are now offering for sale a most old son of "Count D. Kol Pretrijl" bull out of a 30 lb. cow; also a son of Sara Hengerveld Korndyk from an 18 lb. cow. Both choice individuals. Fit for service. BROWN BROS., LYND, Ont.

## EDGEMONT HOLSTEINS

For sale, one yearling bull, fit for service; also bull calves from Record of Performance Cows.

G. H. MCKENZIE, Thornhill, Ont.

## FOR SALE

An extra good yearling Holstein bull for sale from a 30 lb. sire and a 17 lb. dam. Am also in a position to offer a bull son to Francy III's Admiral Ormsby, Dam, Francy III. Butcher in 7 days, 23.16. All stock guaranteed to be just as represented. J. A. CASKEY, Box 144, Madoc, Ont.

## LAKEVIEW HOLSTEINS

Count Hengerveld Fayne De Kol heads the herd. His sire, Pictorial, is in place of Count De Kol, is the sire of the world's champion milk cow, Grace, Cranelle, 119 days. His dam, Grace Fayne 2nd, has 26.50 lb. butter in 7 days. Also in the dam of Grace Fayne 2nd's Homestead, the world's champion butter cow, over 35 lbs. butter in 7 days. Bull calves for sale.

E. F. OBLER, Bronte, Ont.

## AYRSHIRES

## AYRSHIRES

One young cow freshening about June 25th. One bull calf, dam and gr. dam on sire's side, both from record. Also bull calves from Record of Performance cows. Prices right.

JAS. BEGG, Rural No. 1, St. Thomas, Ont.

## BURNISIDE AYRSHIRES

Fresh importation just landed of 12 of the choicest young bulls I have ever landed from the best herds in Scotland, such as Osborne's, Auchenbarr's, Netherhill's, Barr's of Hobsland and Mitchell female cows, 3 year olds, 2 year olds, also 10 choice 1 year old heifers. Correspondence solicited. R. W. F. W. Burns.

Burnside Stock Farm, Howick, Que.

## CHERRY BANK STOCK FARM

Have yet one yearling bull fit for service, a good big fellow with lots of quality; also three last fall bulls. Females, any age, and calves of either sex. Write for prices.

P. D. MCARTHUR, North Georgetown, 5 mile from Howick Station. Que.

## STADACONA FARM

Show a Record for 1909

At Three Rivers, Quebec's Provincial Exhibition, at Sherbrooke, Canada's Great Eastern Show, at Ottawa, the Dominion's large Central Fair, at Barre, Vermont, under five different names, my Ayrshires won FIRST PRIZES THAN ALL OTHER EXHIBITORS. Cattle of both sexes and all ages for sale at very reasonable prices. 0-6-10-20.

## GUS. LANGELIER

Stadacona Farm, Cap Rouge, Que.

## "La Bois de la Roches" Stock Farm

Here we kept the choicest strains of AYRSHIRES, imported and home bred. YORRSHIRES of the best herds in Quebec. WHITE DRIPINGTON, WHITE WYANDOTTIS and BARRED ROCK. HON. L. J. FOREST, Proprietor. B-55-10. Ste. Anne de Bellevue, Que.

## TWO AYRSHIRE BULLS FOR SALE

12 MONTHS OLD  
Of Choice Breeding, sired by AUCHENBRAIN GOOD GIRL (Imp.) - 2725-30. The dams are cows with good milk and fat records. Of good size and ready for service. 80 lbs. each, with registered pedigree, \$200 each. Also a few Bull Calves by same sire. Write.

W. F. STEPHEN, Huntington, Que.

## HOLSTEINS

## BULLS! BULLS! BULLS!

A less than half their value for the next 30 days. Write

GORDON H. MANHARD  
MANHARD, ONT., Leeds Co.

## HOMESTEAD HOLSTEIN HERD

Headed by the great young sire, Dutch land Colantha Sir Abbecker. Dam, Miss Pauline De Kol, butter 7 days, 26.44. Sire's dam, Colantha d'h's Johanna, butter 7 days, 35.22. Average of dam and sire's dam, 31.83 lbs. bull calves offered, one to seven months old, from dams up to 25% lb. butter in 7 days.

EDMUND LAIDLAW & SONS  
Box 254  
Aylmer West, Ont.

## RIVERVIEW HERD

Offers bull calves at half their value for the next 30 days. One ready for service, one a son of King of the Pontiac, dam daughter of King Septa, Record 18.37 lb. butter, 7 days, as Jr. 2 year old.

P. J. SALLEY  
Lachine Rapids, Que.

## GLENSPRINGS HOLSTEINS

Three Fine Young Bull Calves, from A R. O. and E. O. P. cows for sale. Also

COUNT GREENB 4431, born Feb. 14, 1904

Dam, Shady Rock Parthonia

Butter in 7 days, 35.11

Sire, De Kol 2nd, 32 A. O. daughters

43 A. R. O. daughters

Dam, De Kol 2nd, Butter, 25.55

E. B. MALLORY, Frankford, Ont.

## SUMMER HILL HERD

## REGISTERED HOLSTEIN CATTLE

This year our herd has made two World's Records, and two Canadian Records.

Jennie Bonages Ormsby 6216, calved as a two year old, 45.99 lbs. milk, containing 532 pounds butter in 365 days. (Official World's Record).

She also made 14.39 lbs. butter in 7 days. Record for much better.

She months after calving which is World's Record.

Francy 3rd 6220, made 29.16 lbs. butter in 7 days. Champion Canadian bred cow.

Francy Calamity De Kol 10414, made 16.47 lb. butter in 7 days, which is Canadian record for heifers calving before two years old.

These three females are all of the same more to hear from. We have

We own the sire and dam of Jennie Bonages Ormsby, World's Champion, and dam of Francy Calamity De Kol, 10414.

We own two daughters from Francy 3rd. Sixty head on hand, including 37 choice heifers bred to Sir Admiral Ormsby of 471, sire of World's Champion. This is

Phone 2471, Hamilton. Trains met at Hamilton if advised.

D. C. FLATT & SON, Millgrove, Ont.

R. R. No. 2, E.T.P.

## HOLSTEINS

## WINNERS IN THE RING

Gold Medal Held at Ottawa Fair

and

## WINNERS AT THE PAUL

See Our A.R.O. Records

Just the kind we want. They combine

CONFORMATION

and PRODUCTION

Roll and Heifer Calves for Sale from

Our Winners

## "LES CHENAUX FARMS"

Vaudreuil, Que.

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

sent. Next week's receipts will be June made, and prices lowest in every respect, this time last year, is low compared with a considerable amount for storing purposes, which is likely to influence prices upwards. The finest of the Eastern Towel hit this week at 25c to 22c; a lb. with choice goods quoted at about 1c a lb. cow to rule about 22c to 22c for next week's receipts.

## CHEESE MARKETS

Oryster, Ont., May 27.—Best bid, 10 13/16c. No cheese sold, being held over until next week. Cowansville, May 26—9c boxes offered, all sold for 10 1/2c.

Campbellford, May 31.—150 boxes offered, 750 boxes sold at 10 1/2c; boxes boarded 10 1/2c offered for the balance, but only 2 factories sold.

Stirling, May 31.—970 boxes boarded; all sold at 10 1/2c.

Leamington, June 2—638 cheese, all white, sold at 10 1/2c.

Belleville, June 2—545 white and 100 colored offered. Sales were 510 at 10 1/2c; 10 13/16c, 12 1/4 at 10 1/2c; balance rest white offered. Best offer, 10 1/2c; none sold.

Kingston, June 2—1050 white and 523 colored registered at 10 1/2c to 10 1/2c; nearly all the board rest white offered.

Tweed, June 2—500 white cheese boarded, 10 1/2c bid; no sales.

Whitby, June 2—1127 boxes registered, of which 150 were colored; balance white; 10 1/2c offered, and a few sold on the board.

Ottawa, June 3—390 colored and 273 10 1/2c bid.

Perth, June 3—1300 boxes cheese boarded—1000 white and 300 colored. Tuling price was 10 1/2c.

Pictou, June 3.—22 factories boarded 2227 boxes colored. Highest bid, 10 1/2c; 2247 sold.

Quebec, June 3.—Cheese boarded, 900 boarded and 1200 white, all sold on the board and curb for 10 1/2c.

Three Rivers, June 3—540 colored and 460 white cheese offered 250 colored and 101 white sold on the board at 10 1/2c. Balance Canton, N. Y., June 4—1700 boxes of cheese sold at 14c.

Cowansville, Que., June 4—120 boxes of cheese boarded; all sold at 10 1/2c.

London, Ont., June 4—100 boxes, 488 white, and the balance colored, boarded; 200 white sold at 10 1/2c.

St. Hyacinthe, Que., June 4—600 boxes cheese sold at 10 1/2c.

Watertown, N. Y., June 4.—Cheese sales, 200 at 14c.

## GOSSIP

## LARGER DAIRY PROFITS

A large catalogue full of suggestions for dairy farmers, large and small, has come to hand from W. A. Drummond & Co., of King's County, Ontario. The firm in question is one of the largest manufacturers of dairy supplies in Canada.

A few of their popular lines, include Milk Testers, Automatic Scales, Babcock Milk Bottles, and that wonderful machine, The Root Separator.

The Root Separator, which is one of a few of hundreds of useful articles here are only a few of the articles listed in the catalogue. The more for any firm's goods will make them money for the money.

W. A. Drummond & Co., state that they will send a catalogue to any farm and dairy dealer free of charge, mentioning at the same time any particular thing they are in need of.

## LARGEST PROFITS WHEN UNDER OFFICIAL TEST

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**CRUMB'S IMPROVED WARRIOR STANCHION**

Prof. G. H. Helyar of Mt. Herman School, Mt. Herman, Mass., writes: "We could not get along without Warrior Stanchions."

Send address for booklet "WARRIOR STANCHION" of information to Crumb's Stanchions, 100 S.W.A. All correspondence should be addressed to the above office. State in every reply your locality in French or English.

**Dr. Bell's Veterinary Medical Wonder** cures rheumatism, indigestion, lung, hoarseness and every county. Write for circular and bottle. This offer only good for 60 days. Limited to one bottle.

**DR. BELL, V.B., Kingston, Ont.**

**MISCELLANEOUS**

**TAMWORTH AND BERKSHIRE SWINE**—Boars and sows for sale. J. W. Todd, Corinth, Ont. Maple Leaf Stock Farm. 614

Hampshire boars, two months old, \$12 each. One pair, \$25. Registered pedigree with Nelson Fox, Harrow, Ont.

**TAMWORTH AND SHORT HORNS FOR SALE**

Young and mated sows sired by Imp. Boar, dams by Colville's imported Canada choice pigs of both sexes. Two choice yearling Shorthorn bulls, choice family. Excellent milking strain. Three choice heifers, 2 years old, in calf to choice bull. Prices right.

A. A. COLWILL, Box 9, Newcaston, Ont.

**AYRSHIRES**

**SPRINGHILL AYRSHIRES**

Imported and home bred stock of all ages for sale. Stock shown with great success at all the leading fairs.

**ROBT. HUNTER & SONS**  
Long distance phone  
Massville, Ont. B-74-10

**AYRSHIRES**

Ayrshires of the right stamp for quality, bred for profit and production combined with good type and price.

R. M. HOWDEN, St. Louis Station, Que.

"A GOOD RECORD BOOK."—I received the farmers' record book a few days ago and was sent me by Farm and Dairy in return for a note of thanks. I am much pleased with it. A farmer can keep a record of everything on his farm through the use of one of these record books.—W. P. McARDLE, Quebec.

**OUR FARMERS' CLUB**  
Contributions Invited.

**ONTARIO**

**CARLETON CO. ONT.**

**NORTH GROWERS' ASSOCIATION**—is all done with the exception of corn and part of the root crop. Last year's grass seeding, looking well. Old meadows and pastures, however, are not doing well.—E. K.

**HASTINGS CO. ONT.**

**ACTINOMILITE**—Farmers are almost done seeding. Everything is looking fine, and there is every prospect of a bountiful harvest. Butter, eggs, and every kind of meat continue to sell for high prices.—T. K.

**HALLIBURTON CO. ONT.**

**KINMOUNT**—There is a great number of stallions on the road, all breeds being represented. The colt crop for 1910 is very large. Small pigs are still scarce. A number have been shipped out from point on the T. B. & O. Butter factories are in full swing. 25 c. lb. being paid for butter and fat. A car load of hams were shipped to the west last week. The following prices are being paid for farm produce: Butter, 25 c. lb.; eggs, 20c; hay, \$15 a ton; hens, 50c to 61c; pork, 10c to 11c a lb; mutton, 11c to 12c a lb.; beef, 11c and 12c.—

**PETERBORO CO. ONT.**

**PETERBORO**—The annual meeting of the Farmers' Institute of West Peterborough will be held on the farm of the president, J. H. Garbutt, on Friday, June 10, at 2 o'clock. A drainage demonstration will be given. The district representative of the Agricultural Department, C. C. Duff, B.S., A., of Norwich. It is the intention to finish the afternoon with a picnic and the Women's Institute of Lakefield, are expected to be present. The Farmers' Institute excursion will be to Melbush and the Experimental Farm, on June 9th.—W. C.

**DURHAM CO. ONT.**

**SILINA**—During the past 10 days cold and unsettled weather has prevailed. However, the crops have advanced apparently according to a much needed stimulus, though the influence of frequent rains. This locality shows a uniformity of crops in general that would be difficult to surpass. Fall wheat is developing "dearly" and your correspondent has just seen wheat more promising at this period of the season. The spud and scuffer should now be given their annual exertion and it is gratifying to note that generally they are not given absent treatment. Hay crops, red clover and silage are making growing merrily along to their harvest.—J. B.

**VICTORIA CO. ONT.**

**OAKWOOD**—Seeding is all finished. In the majority of cases the root crops are being rushed into the ground. Although somewhat copious showers tend to retard work on the land. The fall wheat everywhere promises an abundant harvest. Only in very occasional places is a uniformity of winter-killing apparent. Some farmers who have fall wheat on exceptionally rich land have been known to check the abnormal growth by topping the thickest spots with the scythe. Others by a liberal application of lime, in hope to overcome the tendency of the weeds to go down when it reaches maturity.—R. W. H.

**WELLINGTON CO. ONT.**

**MFTZ**—On account of so much wet weather in April and May some of the crops are just through seeding. Some of the earliest sown root crops are ahead of the later ones. Hogs are about 5c a lb. young pigs are scarce, selling at 5c a lb. pair; grain, 42c to 45c; huckabuck in selling at 45c; oats, 32c; peas, 25c; butter, 25c; and eggs, 18c. Eggs are very plentiful.—W. M.

**WATERLOO CO. ONT.**

**WATERLOO**—Farmers are busy planting corn. Quite a number of new silos is being put up this year. Spring grain is growing nicely. The early weather of the past week. The season has been very favorable for germinating mangel and sweet root seed. Pastures are good and cattle are being put out. Most of the cattle have been shipped at from \$6.50 to \$7.00 per cow, for 1,200 lb. steers.—C. H. S.

**HURON CO. ONT.**

**GODERICH**—The cow sheds, followed by warm weather, have forced root crops along. Fall wheat is in splendid condition,

having wintered perfectly. Clover is doing well, but in many fields the stand is as thick as might be desired. The spring weather has retarded for a time by cold winds, but is now in good condition. The new seeding of clover has germinated well and promises a good stand. Live stock have now been ordered in for the spring and generally speaking are in good condition. Fools are now arriving and in majority have good qualities have occurred the last year. They have been strong and healthy.—D. G. S.

**MIDDLESEX CO. ONT.**

**TEMPO**—To show the difference between the present and the past, the son of an early settler of this part, told the writer this story about his father, who said: "Back in the twenties, when I first took up land I found the rattlesnakes so bad and dangerous that I was afraid to walk frightened. Even my oxen got so badly frightened that I could only walk great difficulty manage to drive them. In built my first log cabin upon a small hill that was quite sandy. Underneath the bottom there were several small holes. In the warm days of spring and summer the small holes would come up from there and send the water around my cabin door. I have seen big fellows erect round hills of potatoes with beads victim. Their continued snoring and grunting often made my hair stand on end, and I was afraid to put my foot to the ground. But I fought them to a finish.—

**ELGIN CO. ONT.**

**TALBOTVILLE**—Indications point to an abundant harvest. All fruit trees have bloomed in great profusion. A farmer near here writes to say about growing tomatoes: "I plant them in the garden, the barn so as to be away from the poultry, but they dearly love tomatoes. I beside them put in two or more rows of marrows for the table use. When the frosts begin to set in, I use the pen-straw to cover the tomatoes. As the light protection, the tomatoes are safe from frost, but will ripen nicely.—J. E. O.

**GOSSIP**

**HOLSTEIN FRIESIAN OFFICIAL RECORDS FOR APRIL, 1910.**

(Continued from page 20)

- 18.44 lbs. milk; 397.3 lbs. milk, owned by George Kilgour, Delmer, Ont.
- Calamity DeKalb (10115) at 3 yrs., 3 days of age, 14.71 lbs. butter, 10 mos., equivalent to 13.39 lbs. butter; 415.5 lbs. stock, Ont.
- Rosa Lee DeKalb (3127) at 9 yrs., 7 mos., equivalent to 17.44 lbs. butter; 411.7 lbs. milk, Owned by B. Mallory, Belleville, Ont.
- Centre View Anna 2nd (6250) at 5 yrs., 15 mos., equivalent to 17.13 lbs. butter; 416.3 lbs. milk, Owned by P. D. Ede, Oxford Centre, Ont.
- Rosa Lee (2500) at 12 yrs., of age, 15.64 lbs. butter, fat, equivalent to 17.75 lbs. milk; butter: 398.5 lbs. milk, Owned by A. D. Fairly Fafor (6195), 5 yrs., 2 mos., 16.86 lbs. butter, fat, equivalent to 17.75 lbs. milk, Owned by M. L. Haley, Sprtngford, Ont.
- Ruby Den (6579) at 5 yrs., 17 days of age, 15.49 lbs. butter, fat, equivalent to 16.86 lbs. butter, fat, equivalent to 17.75 lbs. milk, Owned by G. Kilgour, Delmer, Ont.
- Thirty-day record Lily Westwood 2nd (3260) at 7 yrs., 14 mos., 16.65 lbs. butter, fat, equivalent to 17.45 lbs. milk, Owned by Thomas Hartley, Downsview, Ont.
- Alberta Maid (6629) at 4 yrs., 9 months, 26 days of age, 17.63 lbs. butter, fat, equivalent to 23.35 lbs. milk, Owned by Austin J. McIntosh, Dundela, Ont.
- Minnie Abbecker DeKalb (7349) at 4 yrs., fat, equivalent to 14.63 lbs. butter, fat, equivalent to 16.17 lbs. milk, Owned by Orrin Strader, Brinston, Ont.
- Laura Jewel (6653) at 4 yrs., 9 months, equivalent to 14.63 lbs. butter, fat, equivalent to 16.17 lbs. milk, Owned by Thomas Hartley, Downsview, Ont.
- Poach Blossom (6739) at 4 yrs., 8 months, 34 days of age, 13.75 lbs. butter, fat, equivalent to 17.19 lbs. milk, Owned by Thomas Hartley, Downsview, Ont.
- Thirty-day record at 4 yrs., 8 months, 24 days of age, 15.63 lbs. butter, fat, equivalent to 17.19 lbs. milk, Owned by Thomas Hartley, Downsview, Ont.
- Madam Poach (6591) at 4 yrs., 4 months, 26 days of age, 15.16 lbs. butter, fat, equivalent to 16.43 lbs. milk, Owned by A. E. Hulet, Norwich, Ont.
- Starlight Canary Bucke (7671) at 4 yrs., 1 month, 8 days of age, 11.53 lbs. butter,

- fat, equivalent to 14.41 lbs. butter; 321.1 lbs. milk, Owned by Walter S. Schell, Woodstock, Ont.
- Hazel Maiden Mercedes DeKalb (10115) at 3 yrs., 6 months, 14 days of age, 16.49 lbs. butter, fat, equivalent to 20.12 lbs. milk, Owned by W. J. Bailey, Woodstock, Ont.
- Francy Boneres Ormsby (8215) at 3 yrs., 8 months, 5 days of age, 16.21 lbs. butter, fat, equivalent to 20.12 lbs. milk, Owned by D. C. Platt & Son, Brinston, Ont.
- Kordyke Pietertje Keyes (7395) at 3 yrs., 6 months, 6 days of age, 14.49 lbs. butter, fat, equivalent to 18.12 lbs. butter; 409.9 lbs. milk, Owned by A. D. Foster, Brinston, Ont.
- Mechthilde Daisy DeKalb (7446) at 3 yrs., 5 months, 15 days of age, 13.76 lbs. butter, fat, equivalent to 17.30 lbs. butter; 371.1 lbs. milk, Owned by Thomas Hartley, Downsview, Ont.
- Fourteen-day record at 3 yrs., 5 months, 16 days of age, 26.88 lbs. butter, fat, equivalent to 32.56 lbs. milk, Owned by Thomas Hartley, Downsview, Ont.
- 8 days of age, 13.60 lbs. butter, fat, equivalent to 17.00 lbs. butter; 422.7 lbs. milk, Owned by Benj. R. Leavens, Bloomfield, Ont.
- Helena Hengerveld Keyes (7395) at 3 yrs., 5 months, 4 days of age, 15.49 lbs. butter, fat, equivalent to 19.48 lbs. milk, Owned by A. D. Foster, Brinston, Ont.
- May DeKalb Abbecker (8140) at 3 yrs., 8 months, 11 days of age, 11.61 lbs. butter, fat, equivalent to 14.75 lbs. butter; 370. lbs. milk, Owned by Orrin Strader, Brinston, Ont.
- Janima Pietertje (7931) at 3 yrs., 5 days of age, 11.67 lbs. butter, fat, equivalent to 14.58 lbs. butter; 353.0 lbs. milk, Owned by Thomas Hartley, Downsview, Ont.
- 8 days of age, 44.24 lbs. butter, fat, equivalent to 56.88 lbs. milk, Owned by Thomas Hartley, Downsview, Ont.
- Gaza Aeonah Calamity (6834) at 3 yrs., 1 month, 26 days of age, 14.63 lbs. butter, fat, equivalent to 14.46 lbs. butter; 375.3 lbs. milk, Owned by L. E. Hulet, Norwich, Ont.
- Netherland Cornelia Poach (7607) at 3 yrs., 10 months, 11 days of age, 10.30 lbs. butter, fat, equivalent to 13.53 lbs. butter; 350.5 lbs. milk, Owned by Walter S. Schell, Woodstock, Ont.
- 11 months, 24 days of age, 16.47 lbs. butter, fat, equivalent to 16.47 lbs. butter; 411.0 lbs. milk, Owned by D. C. Platt & Son, Brinston, Ont.
- Irma DeKalb Sylvia (10382) at 2 yrs., 11 months, 19 days of age, 15.85 lbs. butter, fat, equivalent to 19.85 lbs. butter; 376.4 lbs. milk, Owned by R. Connell, Roebuck, Ont.
- Fourteen-day record at 2 yrs., 4 months, 24 days of age, 15.85 lbs. butter, fat, equivalent to 19.85 lbs. butter; 376.4 lbs. milk, Owned by R. Connell, Roebuck, Ont.
- 20 days of age, 15.85 lbs. butter, fat, equivalent to 19.85 lbs. butter; 376.4 lbs. milk, Owned by R. Connell, Roebuck, Ont.
- 7 days of age, 24.77 lbs. butter, fat, equivalent to 30.97 lbs. butter; 369 lbs. milk, Owned by R. Connell, Roebuck, Ont.
- Bonny Tensen DeKalb (12420) at 2 yrs., 6 months, 15 days of age, 12.69 lbs. butter, fat, equivalent to 15.07 lbs. butter; 296.5 lbs. milk, Owned by D. C. Platt & Son, Verastola's Isosce (10693) at 2 yrs., 15 months, 4 days of age, 11.99 lbs. butter, fat, equivalent to 14.98 lbs. butter; 337 lbs. milk, Owned by David Coughlin, Yarmouth Centre, Ont.
- Emily of Evergreen (10646) at 2 yrs., 21 days of age, 11.91 lbs. butter, fat, equivalent to 14.89 lbs. butter; 337 lbs. milk, Owned by Wm. Slaght, Beaton, Ont.
- Sora DeKalb Veeman (10382) at 2 yrs., 7 months, 11 days of age, 11.90 lbs. butter, fat, equivalent to 14.89 lbs. butter; 337 lbs. milk, Owned by P. D. Ede, Oxford Centre, Ont.
- Sunlight Colantha (10024) at 2 yrs., 12 days of age, 11.77 lbs. butter, fat, equivalent to 14.89 lbs. butter; 337 lbs. milk, Owned by W. J. Bailey, Woodstock, Ont.
- 27 days of age, 11.53 lbs. butter, fat, equivalent to 14.53 lbs. butter; 376.4 lbs. milk, Owned by M. L. Haley, Springford, Ont.
- Cyubana (9139) at 2 yrs., 11 months, 27 days of age, 11.53 lbs. butter, fat, equivalent to 14.41 lbs. butter; 376.4 lbs. milk, Owned by Wm. Slaght, Beaton, Ont.
- Pansy Butterbar (8531) at 2 yrs., 8 mos., 2 days of age, 11.31 lbs. butter, fat, equivalent to 14.14 lbs. butter; 351.2 lbs. milk, Owned by Walter S. Schell, Woodstock, Ont.
- Summer Hill Josephine (11499) at 2 yrs., 10 months, 4 days of age, 10.59 lbs. butter, fat, equivalent to 13.52 lbs. butter; 281.7 lbs. milk, Owned by D. C. Platt & Son, Brinston, Ont.
- Calamity Teake Johanna (10379) at 2 yrs., 16 days of age, 10.13 lbs. butter, fat, equivalent to 12.67 lbs. butter; 329.5 lbs. milk, Owned by M. L. Haley, Springford, Ont.
- Maude Calamity DeKalb (10906) at 2 yrs., 31 days of age, 10.06 lbs. butter, fat, equivalent to 12.58 lbs. butter; 349 lbs. milk, Owned by R. Connell, Roebuck, Ont.

**NOTICE TO SUBSCRIBERS.**  
When sending in change of address, please give your old address as well as the new.

- Barbara Calamity DeKalb (10697) at 1 yr., 31 months, 6 days of age, 9.97 lbs. butter; 356 lbs. milk, Owned by R. Connell, Roebuck, Ont.
- DeKalb Hacketon Belle (10158) at 2 yrs., 1 month, 2 days of age, 9.95 lbs. butter, fat, equivalent to 12.40 lbs. butter; 322.8 lbs. milk, Owned by D. C. Platt & Son, Brinston, Ont.
- Hilda of Nober (10023) at 2 yrs., 21 days of age, 9.72 lbs. butter, fat, equivalent to 12.15 lbs. butter; 310.2 lbs. milk, Owned by W. J. Bailey, Nober, Ont.
- Lulu Durness (9035) at 2 yrs., 7 months, 26 days of age, 9.65 lbs. butter, fat, equivalent to 12.07 lbs. butter; 320 lbs. milk, Owned by B. Mallory, Belleville, Ont.
- Tensen Poach DeKalb (9567) at 2 years, 4 months, 14 days of age, 9.60 lbs. butter, fat, equivalent to 12.00 lbs. butter; 325.4 lbs. milk, Owned by Thomas Hartley, Downsview, Ont.
- Daisy Kirk (11190) at 2 years, 10 mos., 8 days of age, 9.52 lbs. butter, fat, equivalent to 11.99 lbs. butter; 322 lbs. milk, Owned by Thomas Hartley, Downsview, Ont.
- Bell Wayne DeKalb (10383) at 2 yrs., 19 days of age, 9.36 lbs. butter, fat, equivalent to 11.70 lbs. butter; 322 lbs. milk, Owned by R. Connell, Roebuck, Ont.
- Helbon Spink Poach (12920) at 2 yrs., 7 months of age, 9.30 lbs. butter, fat, equivalent to 11.67 lbs. butter; 311.5 lbs. milk, Owned by Wm. Slaght, Beaton, Ont.
- Julia Merona Poach (11281) at 1 yr., 10 months, 14 days of age, 8.86 lbs. butter, fat, equivalent to 11.00 lbs. butter; 290.3 lbs. milk, Owned by Wm. Slaght, Beaton, Ont.
- Burke Hengerveld 2nd (11260) at 2 yrs., 2 months, 21 days of age, 8.58 lbs. butter, fat, equivalent to 10.73 lbs. butter; 266 lbs. milk, Owned by R. Connell, Roebuck, Ont.
- Emily Poach Jewel (9566) at 2 yrs., 7 mos., 15 days of age, 8.52 lbs. butter, fat, equivalent to 10.65 lbs. butter; 311 lbs. milk, Owned by Wm. Slaght, Beaton, Ont.
- Thirty-day record at 2 yrs., 7 months, 15 days of age, 34.84 lbs. butter, fat, equivalent to 43.65 lbs. butter; 270.5 lbs. milk, Owned by Thomas Hartley, Downsview, Ont.
- Poach Netherland Calamity (10896) at 1 yr., 11 months, 22 days of age, 8.31 lbs. butter, fat, equivalent to 10.39 lbs. butter; 269 lbs. milk, Owned by R. Connell, Roebuck, Ont.
- Centre View Gentle (10523) at 1 year, 10 months, 25 days of age, 8.00 lbs. butter, fat, equivalent to 10.39 lbs. butter; 269 lbs. milk, Owned by P. D. Ede, Oxford Centre, Ont.

G. W. CLEMENS, Secretary.

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# Every Farmer's Wife in Canada Ought to Read this Advertisement



**I**F you, Madam, are a farmer's wife, you should use your influence to get your husband to roof the house and barn with Oshawa Galvanized Steel Shingles. For these practical reasons:—

### Safe Against Lightning

Every thunderstorm that passes over your place endangers his life and your own, and threatens damage or destruction to the property. But here would be no such danger if the farm buildings were roofed with Oshawa shingles. They provide any building against lightning far better than any lightning rod system possibly can.

### Safe Against Fire

And, at certain times in the year, the house you live in and the barn nearby is in danger from fire—flying sparks from the threshing machine; sparks from the kitchen chimney; sparks from passing locomotives; sparks from forest fires, perhaps. Farmer's roofs catch fire in many ways—and you are different from most farmer's wives if you do not dread this ever-present danger. You need not dread it at all when the buildings are covered with a seamless steel fireproof Oshawa shingled roof.

### Improves Cistern Supply

Probably you depend a good deal on cistern water. An Oshawa-shingled roof keeps your cistern fuller, and the water is cleaner, tasteless, without odor. It never can be from a wood-shingled roof. It always is from an Oshawa-shingled roof.

### Costs Very Little

When you speak to your husband about this, ask him to send for the instructive and handsomely-illustrated free book called Roofing Right. He will see, when he reads that, that the actual cost of an Oshawa-shingled roof is less than five cents per year for a hundred square feet of roof surface. He will see that this roofing is guaranteed to satisfy in every sense for twenty-five years, or he gets a new roof for nothing. He will see that it will pay him well to cover his house and barn with a roof that is guaranteed **wel-proof, wind-proof, fireproof and lightning-proof** for a quarter century, and that will be a good roof in every sense for fully 100 years.

### Use Your Influence

Interest yourself in this vital matter. It directly concerns you. Get your husband to inquire into it. Get him to send for the free book—now—to-day. Or send for it in your own name. Do that, anyway. You will be interested in what the book tells you; and it is important that you, as well as himself, should know all about roofing, and about Roofing Right in particular. Send now for the book, please.

**O**SHAWA STEEL SHINGLES are made of 28 gauge steel, specially toughened and heavily galvanized to make them rust-proof. Thus they weigh about **SEVENTY-EIGHT**



pounds to the square. With the box about 88 pounds to the square.

When considering metal shingles always learn **THE WEIGHT OF METAL** per square offered and be sure that the weight is of the **METAL ONLY**.

Make the weight test yourself. First be sure the scales are accurate. Then unbox a square of Oshawa Shingles and weigh them. Note that the weight averages 78 pounds **WITHOUT THE BOX**.

Don't go by the box weight. Some boxes weigh fourteen pounds or more.

*S. A. Pedlar*

**D**ON'T stop when you have Oshawa-shingled your roofs. That is only the first step towards making a house modern, or a barn what a barn should be. Go on and plate your house inside and out with steel. Cover the surface of your barn with steel. In a word, "Pedlarize" every building on your farm. This way:

### Make Your House Fireproof

Finish the interior of every room in your house with Pedlar Art Steel Ceilings and Side-Walls. These are made in more than two thousand beautiful designs, the patterns stamped accurately and deeply into the heavy and imperishable metal. They cost less than plaster in the first place; and they will be like new when a plaster ceiling or wall is cracked to the danger point—which doesn't take long as a rule. They are easily put in place. They can easily be painted and decorated,

### Make Your House Sanitary

Then, if you surface the exterior of the house with Pedlar Steel Siding—it is made to simulate brick, rough stone, cut stone—these Ceilings and Side-Walls and an Oshawa-shingled roof gives you a residence that is more nearly fireproof than the "skyscrapers" of the great cities. Also, such a house will be much warmer in winter than if it were built of solid brick—and so it will save its cost in fuel-savings. It will be cooler in summer. It will be sanitary inside—you can wash the ceilings and walls clean with soap-and-water. It will be a handsome, substantial, and enduring proof of your judgment in choosing the modern building material—steel—Pedlar-made Steel.

### Make Your Barns Safe

With Pedlar Steel Siding you can finish the outside of your barn most economically, and your cattle will thrive better in bitter weather than if they were housed in a solid concrete barn. This heavy-gauge seamless steel finish, keeps out the wind and keeps in the animal heat. It saves in lissened feed-bills enough to pay its cost over and over. It costs but little; it is simple to put on; and it will outlast the building's very timbers. Most important of all, it—with Oshawa Steel Shingles for the roof—makes barns practically proof against fire, entirely free from every kind of dampness, and proof against lightning.

### Learn About Pedlarizing

At the same time you send for your free copy of Roofing Right Booklet No. 9, ask us for particulars about these other Pedlar specialties. We will send you samples of any of them; prices; illustrations; and samples of the Oshawa Steel Shingle as well—all just for the asking.

**GET SEVENTY-EIGHT POUNDS OF STEEL TO THE SQUARE  
GET A TWENTY-FIVE YEAR GUARANTEE**



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ADDRESS OUR NEAREST WAREHOUSE. WE WANT AGENTS IN SOME LOCALITIES. WRITE FOR DETAILS. MENTION THIS PAPER.