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CHAS. J. H. GLENN  
C.P.E.

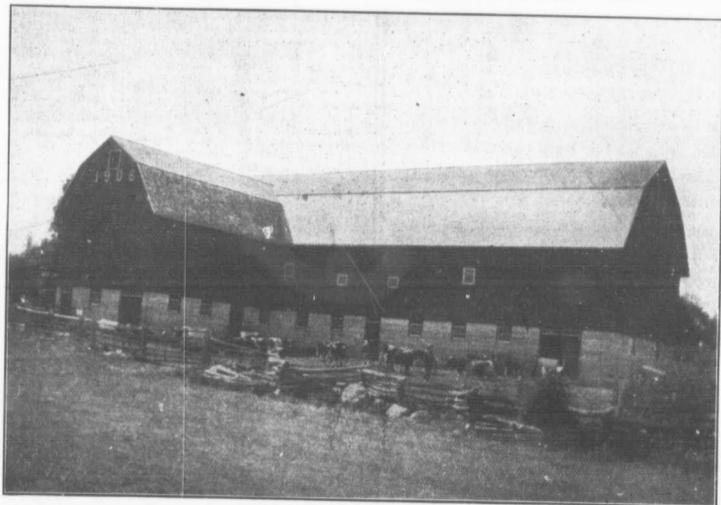
# FARM AND DAIRY

## RURAL HOME

PETERBORO, ONT.

DECEMBER 30,

1909



THIS BARN IN NORTHUMBERLAND CO., ONT., IS EQUIPPED WITH A VENTILATING SYSTEM. Fresh air is an absolute essential of life. It is the cheapest thing we have and it is well that it is so; without air, animal life will not exist five minutes. Notwithstanding these facts, so universally known, many of us continue year after year to shut up stock in close unventilated quarters and deprive them of this vital need so abundant and so free. Out of the many stables examined by the judges in Farm and Dairy's Prize Farms Competition, one of the few that were equipped with a system of ventilation is illustrated above. It is owned by Mr. E. Terrill, who describes its ventilation system on page 4.

—Photograph by Editor of Farm and Dairy.

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CANADIAN COUNTRY LIFE

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## Influence of Judging Courses\*

D. A. McKenzie, B.S.A., Victoria Co., Ont.

The influence of a five day judging course, though necessarily local in its purpose, presents some great possibilities as a factor in our agricultural extension work. The effects on the community may be summed up as follows: The indigent man has his interest aroused. The man who honestly wants to learn more about his profession, gets a fund of information from the discussion and criticism of existing varieties, breeds and methods. The college professors and leaders in agricultural thought and practice throughout the province are brought into close touch with the rank and file of the farming community, and lastly, it tends to create among farmers a higher appreciation of their profession.

### THE INDIFFERENCE THAT EXISTS

It is evident, from the small percentage of farmers' sons in attendance at the Ontario Agricultural College, the poorly attended meetings of the Farmers' Institutes, the ragged, dirty appearance of many of the farmsteads of Ontario, that indifference exists to an appalling degree. New methods must be adopted to reach and stir these men and a five days course will, if properly advertised and conducted, interest many of them; not perhaps from a genuine desire for knowledge but because it is a new thing and the crowd is going.

To the man who is alive to his interests, the five days judging course comes as a shower to a thirsty land. The discussion and criticism of common varieties, breeds and methods, as carried on at the five days course, gives him a chance to examine the variety or type under discussion, at close range, and to understand and remember points of merit or distinction as the case may be. He has a chance to compare his own practical experience with that of the instructors in charge or with that of other men successful along the same line of endeavor, and to inquire into the cause or causes of difficulty and failure.

### A REAL AND BENEFICENT ORGANIZATION

Despite the fact that Ontario has one of the best organized Departments of Agriculture in the world, there are many farmers who do not come directly under its influence. The Ontario Agricultural College reaches a considerable number, the Farmers' Institute and other branches of the department reach a large number, but to many farmers the Ontario Agricultural College and the Farmers' Institutes are mere names associated only with the spending of the people's money. These people are not interested in the work of the college and never attend an Institute meeting, but they will attend a five days judging course and there they come in touch with the college professors and heads of the various branches of the Department in Toronto. They hear President Creelman tell of the work done by the Ontario Agricultural College, the college professors discuss important phases of farm practice, and the superintendents of the Toronto branches discuss their efforts along educational and organization lines. They have their eyes opened; what was once to them a sort of infernal machine for squeezing money out of the farmer, to supply lucrative positions for political favorites, becomes a real and beneficent organization.

### ABOUT THE INDIFFERENT MEN

The indifference of many farmers to education and their conservatism in adopting improved methods, has led men in other callings to underrate Agriculture as a profession. The small financial returns secured by many farmers as a direct result of obsolete and slipshod methods have caused these farmers to look on their

profession as a little inferior to all others. If we can arouse the indigent man to see his need of improvement, satisfy the honest inquirers after knowledge and bring our Department of Agriculture into living touch with every farmer in the community; the result will be greater financial returns to the individual farmer, more liberal education for boys and girls on the farm, and a greater respect for Agriculture as a profession.

### Excessive Co-operation

"It is possible for farmers to cooperate to excess. No group of farmers should cooperate to undersell their town merchant," said P. E. Angle, B.S.A., in an address before the Experimental Union at Guelph.

"The fruit growers of Simcoe in Norfolk County, Ont., save large quantities of spray material. They went to their town merchants and gave them a chance to put in the material. Then they went to a wholesale firm and discovered that they could save 50 per cent. on these spray materials if they bought co-operatively.

"The merchants were ill-advised in this case. They should have been content with a smaller profit. The fruit growers were quite justified in buying their goods co-operatively when merchants are not content with less than 50 per cent. profit on such large deals."

### Weeding Out Unprofitable Cows

G. W. Mayhew, Stanstead Co., Que.

I have been testing my cows and keeping individual records for two or three years. We have been keeping records of feed, also, since last June. We hope to have some interesting facts as to the cost of feed by the time the year is out.

We have had two hard years for the farmers—two dry summers when just the time ate about all the green feed in sight as our dairymen have not had much of a chance. Many cows went back in their production about one-third during the past year.

The only way to get rid of cows that don't pay for their keep is to discover them by testing and keeping individual records. Since I commenced to test my cows, I have been sorting them over and getting rid of those that do not pay. Cost testing has shown us which cows are the best to keep for building up the dairy herd.

### Give the Horse a Chance to Breathe

A farmer, plowing with three horses hitched abreast, noticed that the middle horse became tired and exhausted long before either of his mates, says the *Farm Journal*. As the animal was the equal in every way of the other two, he was puzzled as to the cause of this horse not being able to stand the same amount of work. He finally observed, however, that as they drew the plow along, the three horses held their noses close together, with the result that the middle horse was compelled to breathe the expired air from its fellows.

The farmer then procured a long "jockey" stick, which he fastened with straps to the bits of the outside horses. The device worked perfectly; for, given his rightful share of good, fresh air, the middle horse was able to do the same amount of work, and with no greater fatigue than his fellows. Many persons are like the middle horse; they are fresh, pure air, and this is why they are not able to perform as much work.

We have more good cows than we ever thought we had. We have more poor feeders than poor cows.—J. W. Newman, Victoria Co., Ont.

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# FARM AND DAIRY

## RURAL HOME

Only \$1.00  
a Year

Vol. XXVIII.

FOR WEEK ENDING DECEMBER 30, 1909.

No. 52.

### DOUBLING THE MILK PRODUCTION OF A DAIRY HERD

Arnold J. Davis, Oxford County, Ont.

How one young man built up a High-Producing Herd of Dairy Cows from Common Grades. History of this Herd, its Management, and a Summary of Profits Produced

PREVIOUS to the Holsteins now kept, our cattle were for the most part, grade Shorthorns; some possessed a little Jersey blood. These were cows kept by my father until eight years ago. At that time, these cattle were thought to be very good cows. They gave from 3,000 to 5,000 pounds of milk a year. For 12 cows, the average was 4,500 pounds. At that time, I was quite a young fellow just in my 'teens. I had a particular fancy for working with the cows to see how much I could make them give in a year when fed on the average coarse fodders grown on the farm. I was not allowed to feed much grain; it was thought to be very foolish to feed grain profit. Eight or 10 years ago many dairymen were of the same opinion. Perhaps they were partly right, when we consider the class of cow the average dairymen was keeping, the majority only giving 2,000 or 3,000 pounds of milk in a year.

#### THE PLAN ADOPTED

We, who are feeding grain to-day would hesitate to feed grain to such worthless cows, too. What we want is better cows, and more careful feeders. Our old grade Shorthorn cows could average their 4,500 pounds, but I felt that there was room for lots of improvement as other men were making great headway by introducing good blood into their herds through some good bull. As I could not afford high priced cows, I adopted this plan of grading up with a good sire.

The first year that I used my bull, I got 10 fine heifer calves; four others I got from neighbors who had brought their very best cows to my bull, making in all 14, all calves of the same Spring. These I raised well, not keeping them fat, but feeding them to make good bone and muscle, also teaching them to eat and digest many of the coarse fodders that we expect our good cows to feed upon. At from 15 to 18 months old all these heifers were bred, bringing them into milking at 24 to 28 months old. After milking my heifers for one year, I could easily see that I had made a very marked improvement in my herd. Their average production was 6,500 pounds milk, just 2,000 more than their mothers that were milked cows.

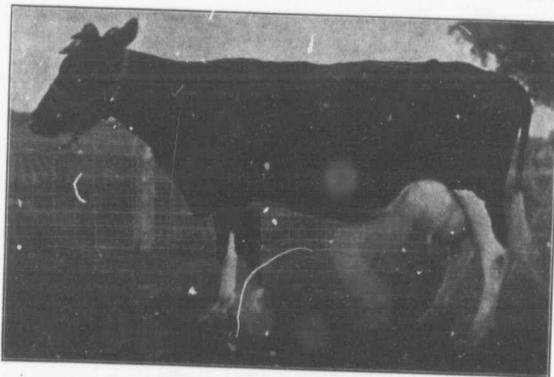
#### COST OF INCREASED PRODUCTION

These heifers did not cost me a cent more to

feed for the year than did their mothers. As these young cows grew older, they gradually increased their average until now I have a herd of 20 grade Holsteins, which are averaging 9,144 pounds for this year. This is after five years of breeding up the herd. You will notice that the heifers beat their mothers by 2,000 pounds. But at the end of five years they had 4,644 pounds to the good, a little over twice as much as the total production of their dams. The average test for these cattle was 3.8 per cent. fat, 388.1 lbs. for the year.

#### METHOD OF FEEDING

While introducing good blood into one's herd is one thing, to produce the proper kinds of feed



Another Cow that bids fair to become a Record Breaker

De Kol Plus, No. 783, owned by S. J. Foster, Prince Edward Co., Ont., has to her credit for seven months in 1909, a yield of 15,276 lbs. of milk; April, 2,029 lbs.; May, 2,354 lbs.; June, 2,452 lbs.; July, 2,375 lbs.; August, 2,275 lbs.; September, 2,085 lbs.; October, 2,004 lbs. How would you like to own such a cow? What efforts are you putting forth to make the milk production.

stuffs and to feed them properly is quite another proposition. The best of feeders are learning from experience each day better ways of feeding. If you will follow me I will give you my method. I will take you back to the time when the cow is just dry and we shall begin to feed her, say eight or 10 weeks before freshening.

After milking for 10 months, we often find a cow a little run down in condition, some more so than others. Now is your opportunity to build her up, and also help her to produce a well developed calf. To do this, you must not follow the old method of feeding her nothing but straw three times a day, sending her to some creek with a hole out in the ice to get her water, and allow-

ing her to come to her stall again after drinking a large quantity of ice cold water, shivering, perhaps for a half hour afterwards.

In order to have a cow freshen in good shape, I would aim to feed a variety of bulky foods with some concentrates, depending on the condition of the cow. The bulky foods can be made up of good oat straw and a few corn stalks, some clover hay, ensilage and a few roots. For concentrates use bran, oil-cake, and oat chop.

#### RATIONS FED

In feeding these foods, I would say feed five lbs. straw; eight lbs. cut dry corn; clover or alfalfa, six lbs.; ensilage, 20 lbs.; roots, 15 lbs.; concentrates composed of one pound bran,  $\frac{1}{2}$  lb. oil-cake,  $\frac{1}{2}$  lb. oat chop, two pounds. A few days before freshening, I would cut out some of the bulky foods, such as the straw and dry cut corn and feed lightly on the other foods, as they will keep her in the proper condition for freshening.

After freshening cows are generally very thirsty and a little weak. To brace her strength and quench her thirst, get about three pounds of good wheat bran and pour enough scalding water on this bran to cover it, let stand a few minutes, then add cold water until it is like water with the chill taken off, and give it to the cow. There are very few cows that will refuse this kind of a drink after just having calved, and it just seems to set them on the way for doing well. For the next few days, feed very light until the cow gets over all udder swelling and her appetite has become quite normal. Many men make the mistake of feeding too heavily on the start. I find it is always safer to underfeed a little for the first four or five days, and then very gradually add the different foods, pound by pound until you have her to the quantity at which she pays the best.

#### THE DAILY PRACTICE

In other words, feed for rather do others. These things the feeder must observe for himself. It is when he can observe the cows' likes and dislikes and is guided by them in his feeding, that he will get the best results. My method for feeding the average cow is as follows: At five in the morning, four to five lbs. of alfalfa hay is fed; after milking, 10 to 15 lbs. of roots, 15 lbs. ensilage. On top of roots and ensilage is given eight to 12 lbs. meal according to amount of milk given. My rule is to feed one pound of meal for every four to five pounds of milk produced. After this is cleaned up, a little oat straw is thrown in the manger; the cow often enjoys picking over this until her



One difficulty which has hindered the progress of the work has been the poor systems used by the ditchers in constructing the drains. The results derived are in consequence often unsatisfactory and tend to discourage the practice. Then again there are countless cases in which the ordinary farmer does not know the best system to follow, the right course to take, the best outlet, and numerous other difficulties which the farmer must have settled before he will willingly invest his money in tile. A few of the more progressive farmers have applied to the county engineer for this information. This course is not only very costly, but is not always satisfactory; hence the highly appreciated assistance of the county representative whose services are not only expert, but also very cheaply rendered, the cost being seldom over \$1.50.

Up to date I have made in my county, over 50 surveys, including open ditch work, and under-draining, each of which have taken from one half to three and sometimes four days to complete. This work did not by any means all come into the office at headquarters. Applications came in very slowly at first, but when out in the field both personal and press advertising were resorted to in order to make the work public. The farmers themselves rapidly spread the news of the opportunity of securing the expert services of a drainage surveyor for almost nothing. In one instance where I had only two applications to attend to, 10 surveys were completed before I left that neighborhood. In fact everywhere that I went a number of farmers after hearing of my presence in the community would make a trip to where I was working and personally make application for assistance in some difficulty.

### Hog Killing and Pork Curing

E. Terrill, Northumberland Co., Ont.

This being the time of year when farmers usually kill their hogs for home consumption, the ways of curing being various, and knowing that more or less trouble is experienced by some in being able to cure their pork in such a way so as to keep it sweet and good throughout the year; I thought it might be of some benefit and profit to some of the readers of Farm and Dairy if I gave my plan of curing pork.

I pick on a convenient day just before the full of the moon for killing. Some may ask does the moon have anything to do with the quality of the pork? It does in this way: the pork does not seem to shrink so much in the cooking if killed when the moon is nearly or quite full. We usually have the water boiling and the first hog killed in the morning by the time it is light enough to see, so that we are all through with the killing and dressing before dinner. We like to have our spring's pigs large enough so that they dress at least 200 lbs. each. We like to have them finished on corn, as we consider the corn produces the best flavored pork.

A barrel, small at the bottom and larger at the top, is used for scalding. Such a barrel we find to be a very convenient shape for the business. I oversee the heating and tempering of the water for scalding, the help doing the other work.

#### PREPARING THE BRINE

As soon as the last pig is scalded I put a good sized kettle over the fire and put in it the brine from my last year's packing. This brine is then heated very slowly to the boiling point. It should take at least one hour for this brine to reach this temperature. One must keep continually skimming it as the scum will begin to come to the surface as soon as the brine begins to steam; much care must be taken to keep the brine from coming to the boiling point before the scum has all come to the top and has been removed. When finished the brine is put in pails to cool.

By getting at pig killing in the early morning, the animal heat is usually out of the pigs so

that we can commence cutting them up about three p.m.

#### CUTTING UP THE HOG

We first remove the head. Then with an axe we cut along each side of the spine and take out the back strip and cut it in pieces about six inches long. We next remove the leaf lard and ribs, shape out the hams, removing the bone up to first joint. Then we cut out the shoulders, making them as near ham shape as possible. The sides we usually cut in to about four strips

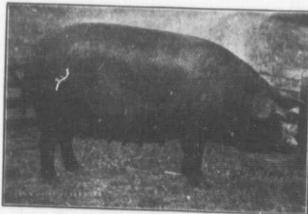


Prize Sheep of a Well-Known Breeder

The yearling Dorset ram illustrated was awarded first prize at the Canadian National Exhibition, and first and Sweepstakes at the Western Fair, London 1909. He is owned by E. H. Harding, Thorndale, Ont.

(crosswise) having all as near the one width as possible so they will roll up and pack evenly in the larrel.

When the work of cutting up is finished we proceed to pack the pork. We have a cask made large at bottom and small at top in the cellar, which holds 1,000 lbs. of pork when filled and in this we put the side meat and back. We begin by putting in a layer of salt about an inch in thickness in the bottom of the cask. Then we roll up the strips of side meat (thin edge in) and set on end in rows beginning at the outer edge of cask and filling it in to the centre. All open spaces are carefully filled by wedging in pieces of the backs and hocks. Then another layer of salt is put on and so on until all is in the cask. It is then covered and a weight put on. The brine is added as soon as cool, additional



The Bacon Type Well Illustrated

The illustration shows the Sweepstakes Tamworth Sow at Toronto and at OTTAWA 1909, owned by E. O. Morrow, Milton, Ont.

water from the well sufficient to cover all the meat being put with it. We usually drop a piece of salt/petre about the size of a large plum in the top of the cask.

#### THE OLD BRINE AS A PRESERVATIVE

The same Brine has been used from year to year ever since my earliest recollection. It possesses a preserving quality superior to new made brine as I have never known of any taint coming on our pork or any brine becoming sour. The pork seems to improve with age, we often have it two years old. I would say never to be afraid to

put on plenty of salt in the packing of pork. It will only take in so much; any surplus you will find in the bottom of the barrel the next season. This can be put in the salt trough for the cattle they seeming to relish it very much.

For the hams and shoulders we make a pickle of the following: 10 lbs. salt, 5 lbs. sugar (brown)  $\frac{1}{2}$  lb. saltpetre to two pails of water; boil and skim. Make in sufficient quantity to cover the meat. The meat is left in this pickle about eight weeks, then taken out and smoked. We prefer smoking them with corn cobs as this smoke improves the flavor.

#### STORING HAMS AND SHOULDERS

After smoking we place them in cotton sacks made for the purpose, but before doing so we dip the sacks in a very thick brine and hang them out to dry. The sacks with the meat in them are hung away in a cool, dry room. These, like the other pork, keep sweet and fine the year round, and when cured in this way, they are of exquisite flavor.

The neck, pieces and other odd bits, with the choice parts of the heads are cut into thin slices, seasoned to taste, and put through the sausage machine the same evening after the butchering.

Thus the pig killing, pork packing, and sausage making is all done up in one day. Attended to in this way before the pigs have had time to stiffen with the frost it is handled much faster and can be packed in much less space than if left till some other day as practiced by some people. I can safely guarantee full satisfaction to anyone who has trouble in saving pork if they will follow closely the method as described.

### Catarrh in Sheep

Catarrh begins with frequent sneezing, a discharge of mucus from the nostrils, inflamed eyes and loss of appetite. If allowed to go on it may become malignant, in which case the lining membranes of the nasal passages, throat, and even the stomach and intestines may become affected. Death frequently results, while such animals as recover from attacks of this extreme nature are generally almost worthless. Simple catarrh may be due to infection, and its development is favored by changes of temperature, exposure to cold rains or chilling winds or by confinement in a draughty or poorly ventilated building. Malignant catarrh is seldom seen except when the conditions are unsanitary. Strong, vigorous sheep in good condition are less liable to seizure, and if attacked, are easier to treat and make a better recovery.

The first treatment (which it is advisable to try before the symptoms appear) is to place the animals in a clean airy place, dry underfoot and with good shelter easily accessible. When a nasal discharge is observed, flax-seed tea may be given three times a day, with plenty of good food. Warm washes are beneficial, while in bad cases marked relief is afforded by steaming the head with hot water in which a little carbolic acid has been dissolved. Some rather ancient authorities recommend blowing different mixtures into the sheep's nostrils, but little benefit is likely to result from treatment of this kind.—Dr. J. G. Rutherford, in Sheep Husbandry.

Feeding plays a most important part in dairy success. The "weed, feed and breed" dairyman is running one of the most important manufacturing establishments in Canada, viz., the one in which roughage such as corn, straw, clover, etc., are turned into high priced milk, butter, cheese and other dairy products. The other kind of dairyman is just as busy a manufacturer, but instead of high priced dairy products, he through his neglect and improper feeding, manufactures profitless culls and while some culls are bred, not a few are made.—G. A. Brethen, Peterboro Co., Ont.



**FARM MANAGEMENT**

**Queries re Extensive Sheep Farming**

I am thinking about going into a sheep farm next season, and would like some information as to the amount of feed it would take to winter a flock of 1,000. Do not intend starting with that many, but from 200 to 300, and then working up to the maximum number. I intend getting a competent shepherd, one who understands the feeding and breeding. The farm that I would get would be on hillside ground which is now very suitable for sheep raising.

I want to feed in the winter with corn ensilage and roots (turnips) mostly and as little hay as possible. How many tons of ensilage, bushels of turnips and tons of hay would it take to feed them, say 100, six months in the winter, and what proportions at the farm? Also how many square feet of barn room is required for a sheep?

Would there be any money in it with lambs selling at an average of \$3.25 and wool at 20¢ a lb? I would go into it more for pleasure and pastime but would like



**A Cow that got Caught**

Mr. E. Terrill's man tied in a shock of corn—an illustration of the pleasure afforded by having a camera on the farm. Photos of farm scenes are always appreciated by Farm and Dairy. Have you any that you would like to have reproduced?

to know whether you think there would be a profit? Any information you can give me will be appreciated.—C. H. D., Windsor, N. S.

You will find 200 ewes quite sufficient if not too many to start with. I would advise a smaller number the first year.

You will need to be most careful in the selection of your shepherd. More depends on the shepherd than on the soil, the kinds of feed or the housing. A good shepherd will see to it that these things are right and will do more with inferior equipment and poor feed than an inferior man will do with the best equipment and most lavish supply of food imaginable. That at least is my experience and opinion.

In answer to specific questions, I might say that for 1,000 sheep I would consider the following supply of food necessary for six months.

- Turnips ..... 225 tons
- or about 8,000 bus.
- Hay ..... 100 tons
- Straw ..... 100 tons
- Oats ..... 1,000 bus.

Sheep pens need not be expensive but should be roomy and it is usually wise to have quite a number

of compartments or small pens, rather than a few larger ones. There should be allowed lots of yard run for winter use and care should be taken to see that they get lots of exercise. Pens should have about 10 square feet floor space per sheep admitted.

With lambs and wool at prices mentioned it is probable that a fair margin of profit would remain after paying all expenses and interest. It would be well, however, to keep a number of pure breeds and so be able to sell the best of the ram for breeding purposes, as well as provide in some measure at least the ram necessary for stock purposes.—J. H. Grisdale.

**Weeds in Eastern Townships Quebec**

By using foul manure, which I bought, considerable portions of my small property is stocked with quack grass and a weed which bears a yellow flower. I don't know its name. I have this fall plowed up this land so as to get rid of it. I want your advice as to best means of getting rid of these pests. They both spread rapidly, and from all kinds of them, I imagine they are hard to dispose of.—W. H. L., Knowlton, P. Q.

Re the two weeds of which you speak I would say that you will likely find it very difficult to get rid of them. The yellow weed is probably the "orange hawkweed" a pest which has made its appearance in recent years which is doing a great deal of injury to the meadows and permanent pastures of the district.

If you have plowed your land up manure as heavily as possible and do not require forage corn or corn for ensilage you might grow Longfellow or Quebec Yellow Corn for the sake of the grain it would produce. The weed suggest sowing this corn in hills about four feet apart each way being careful to give the ground a most thorough cultivation before sowing, and then keep well cultivated thereafter. There would probably not be a great deal of profit from growing corn in this way but provided the field is of fair dimensions, that is a few acres at least in area, the crop would be quite likely to pay for all the labor you would have to expend and then you would have the field cleared of weeds and in first-class shape for the next crop as your profit for the year's work.

Any other crop would do but more work being done by horse power and so lower the cost of cleaning the field.

If the season were very favorable, that is, if it were very dry and the amount of labor required would be comparatively small, but if the season course a good deal of horse work would be necessary.

Now, if you consider it would be impossible to do so to follow this line of treatment, which is the best and the most certain, as an alternative I would suggest the following treatment. Work the land at intervals next spring until about June 20th, then sow Luckwheat at the rate of one bushel and a peck an acre, selecting suitable weather conditions for sowing, that is select a time when the Luckwheat is likely to be killed quickly, grow up and cover the ground. In this way the couch grass and the orange hawkweed would both be smothered and probably entirely destroyed at least it is likely to be the case so far as the quack grass is concerned.—J. H. Grisdale, Agriculturist, C.E.F., Ottawa.

There are many cows that would give good records in milk production, but they have to be fed high food to produce anything but little dribs of milk.—Henry Glendinning, Victoria Co., Ont.

**The Feeders' Corner**

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

**Turnips Flavor Milk**

Editor, Farm and Dairy.—I notice an article in Farm and Dairy of the milk that, re feeding turnips to milk cows. I had an interesting experience a few weeks ago in feeding turnips to one cow (a Jersey). I have always fed turnips just after milking and did not receive any complaints from any one. But I happened to give her the turnips for a few days when commencing to milk and the cream was scarcely fit to use. We returned to the old plan of feeding milk and now there is no perceptible taste. The amount of turnips fed was about 15 lbs. in the morning and 15 lbs. at night.—J. Storer, Victoria Co., Ont.

**Rations for a Horse**

The ration for a horse weighing 1,000 pounds when doing light work should consist of about one and a half pounds of protein, nine and a half pounds of fat, and about 20 pounds of carbohydrates, one half pound of bran and about 30 pounds of dry matter. As the work of the horse is increased the whole ration, of course, should be increased in proportion to the amount of work done. This ration is too light for a horse weighing 1,200 or 1,500 pounds, should be increased accordingly. For a horse weighing 1,000 pounds, 15 pounds of timothy hay would furnish .42 pounds of protein, three pounds of corn, .23 pounds; three pounds of oat, .28 pounds; and three pounds of wheat bran .37 pounds of protein, which will furnish a sufficient ration for a farm horse doing little or no work. This, of course, means an entire day's ration. The horse should have no more than this during the whole 24 hours.

When the horse is put to good ordinary work then the weight of the corn and oats may be doubled or made six pounds each and about four pounds of bran given. If the animal was put to exceedingly heavy work all that he could stand to do, of course the grain ration could yet be increased with profit. As a matter of fact, when a horse is doing all the work he can do every day he ought simply to be given all he can eat in clean hay and grain, and it given in the proportion indicated in the ration.—"Horse World."

Ontario farmers should co-operate on the matter of potato culture. Over 200 varieties of potatoes are grown in Ontario. Only two or three varieties are grown in New Brunswick. That is the main reason why New Brunswick potatoes are eaten in Toronto. P. C. Hart, Wellington Co., Ont.

**The Best Barn Roofing**

Eastlake Metallic Shingles are a positive insurance against fire of metal scatters the electricity rendering it harmless. A roof of Eastlake steel shingles is stronger than a wooden roof equipped with lightning rods. It is a light list fire-proof, covered with a glass-like perfectly weather-proof lustrous never having needed repairs.

Our booklet, "Eastlake Metallic Shingles," tells you exactly what you want to know about the roofing problem. Write for it. Free. Park 300.

Send for information regarding the rat and mice proof sheet metal lining for granaries, etc. It will save you money. Write to the Philosopher of Metal Roofing.

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We want that many more names for our 1910 ADVERTISERS' DIRECTORY, which we are now getting ready. When completed, this list is sent to manufacturers and dealers all over Canada. Also sent to Free samples, books, circulars, etc., etc. in those cases we will put you on our list. For only 10¢ Directory and it will bring you a whole lot of Free Mail for a whole year. Write today enclosing 10¢.

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## HORTICULTURE

### Fruit Institute Meetings in Prince Edward County

A very successful fruit institute meeting was held at Pictou last week under the auspices of the county office of the Department of Agriculture. Mr. A. P. McVannel, the district representative, had secured the services of both practical and scientific men; so much so, that the scientific matters left little to be desired. The attendance by the farmers demonstrated that the meetings were of a popular nature and that there was an awakening interest in the principles of fruit raising.

Mr. Elmer Lick of Oshawa opened the proceedings with many valuable suggestions on the location of fruit plantations, soils, varieties and methods of planting. His experiences on pruning and thinning were also listened to with marked interest. He said that the early spring is the best time to prune but believed that June would be better. Not dangerous especially if manual labor was to be used. He advocated the practicability of not pruning back young nursery stock on planting. Trim young apple stock the Spring following planting after it had allowed the roots to get established. In pruning, growth in the centre of the tree was to be induced by trimming the terminals. Also it was desirable to know the natural growth of your tree before an attempt was made to prune it. For instance, train a Spy upwards. He said that no endeavor never to take more than one-quarter of the living buds on a tree at one time no matter how poor the shape may be. He regarded thinning of the young apples as the most important phase of successful fruit growing.

Mr. R. C. Treherne, Grimsby, followed with a short speech on the selection of varieties to plant. But he paid more attention to introduced insect pests. He pointed out that it was not well to allow the nurseryman to set the standard on any one variety, but that the farmer should buy stock from the market qualities of the fruit. A profitable tree need not be one of good shape so much as one of good vigor. Of introduced insects he paid more attention to the San Jose scale. The oyster-shell, woolly aphid, green aphid and leaf hoppers were also mentioned.

Mr. W. C. McCalla of St. Catharines presented some excellent remarks on the cultivation, care and management of a potato crop, 400 lbs. of steamed bone flour with 200 lbs. of potassium sulphate makes an excellent fertilizer. He suggested the purchase of each ingredient separately from the standpoint of cost. He also recommended the use of the Early Ohio. In regard to cultivation he cultivated deeply at first, gradually getting shallower as the age of the plant increases. He planted on shallow and ridged slightly, the soil being necessary to prevent sunscald and drying out. Mr. McCalla also dealt with the problem of cover crops in an apple orchard, such as clover, buckwheat and vetch were all satisfactory.

Mr. Elmer Lick demonstrated the art of packing and grading apples for the English market. His experience in this line was greatly appreciated.

Mr. Caesar of Guelph spoke very clearly and explicitly on insects and fungous diseases of potatoes as well as on the common insects of the apple orchard. For late blight of potatoes he commended the Bordeaux spray and the burning of diseased leaves. For the satisfactory control of blight it was desirable to allow growth for as long as possible. Insects and fungi retarded growth; therefore, it is ne-

cessary to check their influence. In regard to the spraying of orchards for their diseases he showed how well fungicides and insecticides could work together. The concentrated lime sulphur was especially commended for an early spray; Poison Bordeaux for a later application.

Prof. R. Harcourt of Guelph gave an excellent address on spraying materials and their preparation. He said that the home boiled lime-sulphur was the best of all preparations. First, that it had to be made on the same day as it was applied and that the analyses showed wide variation even when made under the same formulas. To obviate this he recommended the making of the home boiled concentrated lime-sulphur mixture which could be made during the winter and held over till the spring when it was needed. By this means it was very much cheaper than the commercial lime-sulphur and just as effective. He also suggested that the concentrate several barrels could be made by only one boiling—a point far exceeding the home boiled mixture. He also pointed out that it was usually making the mixture in a specially prepared plant. The mixture is made by mixing 100 lbs. of high grade, 15 lbs. of lime and 40 gals. of water and stirring for one hour. This liquid can be kept a tight ready for dilution without fear of crystallization.—T.C.R.

### Fruit Report from Nova Scotia

Prof. M. Cumming, in N.S. Crop Bulletin

The yield of fruit for 1909 was fully up to and by some considered a little ahead of that of 1908, which was the best year which the fruit growers there had for a number of seasons. There will be nearly 600,000 barrels of apples exported, which with the apples consumed at home, brings a total yield to somewhere between 700,000 and 750,000 barrels. The early yield than this, but, as much larger growth of the fruit section was a particularly dry season, as a result of which the hard frosts especially which were not well covered, produced a smaller yield of smaller apples than was anticipated. The best growing season was during the fall months of September and October, the result of which has been that much of the fruit is rather softer in texture than average and is not standing shipment as well as the fruit of former years. Owing to the widespread use of sprays, fruit is reported freer from fungus and insect blemishes than in any previous year.

While there have been local differences in regard to the yields of the different varieties, yet on averaging up the reports of about fifty fruit orchards, we find that the varieties which have averaged the same as last year. By the majority of orchardists, however, Gravensteins are considered at from 10 per cent. to 20 per cent. below last year, but the yield of this variety last year was considerably above average. There is a considerable increase in the acreage set to orchard and if the reports are to be relied upon, we seem that to the largest increase has been in Stark and Wagener. In the early part of last year speculators paid relatively large prices for fruit, but the reports from early shipments have proved disappointingly low. It is generally anticipated, however, that this winter varieties will as was the case last year, realize much larger returns than the earlier varieties, such as the Gravensteins, etc.

The brown tailed moth, which was found quite extensively in the district centering around the county, two years ago, has, through the determined efforts of the residents and of the Department of Agriculture, been reduced to a minimum. There is always fear, however, that it may gain a foothold and spread

rapidly unless the most vigorous control is exercised.

### Trunk Injury in Fruit Trees

W. T. Macoun, Central Experimental Farm, Ottawa

The fact that trees lose moisture in the winter has been proved by careful experiments. In an experiment conducted at the Central Experimental Farm by Mr. Frank T. Shutt, Chemist, in the winter of 1902-3 to determine the moisture-content of apple twigs, it was found that during the depth of winter there was a gradual loss of moisture. Experiments at Cornell University and other places confirm the fact that in the north-west where the weather is very cold in winter and there are often no trees to check the force of the wind, trees lose so much moisture that it is a simple matter for them to die. The same trees if protected by a good windbreak would in many cases not be injured. It has been written, although we are not sure that the figures are correct, that the same surface which would in calm weather exhale 100 parts of high water would exhale 150 parts in a high wind. These proportions would probably be considerably less in the case of fruit trees protected by bark, but it shows the drying effect of wind.

In Eastern Ontario and the provinces of Quebec and there was considerable injury from "body killing". This, for the most part, took the form of trunk killing, the upper part of the trunk being protected by snow being apparently dried out. The result was that the bark and cambium all around the trunk was killed. At Ottawa quite a number of trees were lost in this way. The reason, in our own judgment, why the trunk was killed and the top uninjured was that the top water would exude and was not dried out sufficiently to be killed. In past experience it has been noticed at Ottawa that sometimes the younger growth of apple trees will come through the winter uninjured, while the older parts of the branches will be killed.

Trees in sod orchards will sometimes die from "body killing" when those that are cultivated do not, the latter having more moisture. In a letter received from Mr. A. P. Stevenson, Nelson, Man., he writes:

"Outside of sunscald, our chief winter injury is killing back. This is serious when the following winter conditions prevail: Light snowfall, high winds and extremely low temperature continuing for some time. Some varieties are killed to the snow-line. Two years ago we had a winter like that, and another seven years previous to that. The trees were simply frozen dry."

Two means of prevention of body killing may be mentioned. One, to see that the trees have made vigorous growth the previous summer, not for-

getting, however, to have the wood well ripened. The second is to plant windbreaks to check the force of the wind. In the North-west fruit trees are sometimes protected by sucking or veneer. It is even suggested by those who live in the west to make a box around the trunk with about six inches space and fill it with soil.

### Is Grape Growing Profitable

"Is Grape Growing Profitable as Present Prices?" was discussed by Mr. Murray Pettit, Winona, at the last convention of the Ontario Fruit Growers' Association which answered the question in the negative. He said that there is no profit in grapes when they sell below 13 cents a basket. The cost of producing an acre of grapes is as follows: Land, \$125; 430 vines at 3 cents, \$12.90; preparing land and planting, \$8; 136 posts at 16 cents, \$21.76; setting posts, at 15 cents, \$6.80; 300 lbs. of wire at 3 cents, \$11.70; bracing end posts and staples, \$6; watering and pruning for three years, \$30; this makes a total of \$222.10; add to this interest, \$33.32 and we have a grand total expense for the first three years of \$255.42.

After the vine is established the cost of production on one acre according to Mr. Pettit is: Interest on investment, \$12.74; pruning and tying, \$6; cultivation, \$8; spraying and fertilizing, \$9; picking, packing and delivering, \$13; baskets, \$26; interest and repairs on machinery, \$16; total, \$75.70. Supposing the production were 750 baskets each acre and they sold at 10 cents each or \$75 an acre the producer would sustain a loss of \$15.90; if they sold at 11 cents he would lose \$8.40. A Morris, Gore Bay, would be 90 cents at 12 cents the loss would be \$25.42. Mr. Pettit reasoned, therefore, that grapes must sell at least for 13 cents to pay for the cost of production. He said that the grapes in the area of the present for Concord and Niagara are sold at 10 cents each or \$75 an acre the producer would sustain a loss of \$15.90; if they sold at 11 cents he would lose \$8.40. A Morris, Gore Bay, would be 90 cents at 12 cents the loss would be \$25.42. 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## FARM AND DAIRY

### AND RURAL HOME

Published by The Rural Publishing Company, Limited.

**FARM AND DAIRY** is published every Thursday. It is the official organ of the British Columbia, Manitoba, Western and Western Ontario, and Bedford District, Quebec, Dairymen's Associations, and of the Canadian Food, Agriculture, and Jersey Cattle Breeders' Associations.

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## FARM AND DAIRY

### PETERBORO, ONT.

#### THE OPEN BAR NOT NEEDED

It is to the credit of the farmers of Canada that they are largely responsible for the temperance wave that is sweeping over the country. It is not so many years since we had hotels at almost every cross-roads in the country. As intelligence has increased, the drink holes have been closed, one by one. As they have disappeared the country has been benefited. We now know that it is possible to conduct a hotel without the aid of a licensed bar. Hundreds of the best hotels in the country are located in local option districts.

The province of Prince Edward Island has been under provincial prohibition for several years, and has prospered in a marked degree. Nova Scotia, with the exception of only a couple of counties, is under what is practically Provincial prohibition. Over half of the municipalities in Quebec are without a licensed bar. Almost half of the province of Ontario is under local prohibition. In the United States, 38,000,000 people live in prohibition districts.

Out of 131 municipalities in Ontario which have had an opportunity dur-

ing the past three years, to vote to do away with local option, only four availed themselves of the opportunity, and went back to the license system. What better proof is needed that local option is proving a success?

One hundred and sixty-one municipalities in Ontario will vote on local option on Monday of next week. These include eighty-five townships. Farm and Dairy would like to see the local option by-law carried by a substantial majority in every case. We do not believe that it is possible to find a man who has benefitted, either morally or physically, from in-

It should be read and re-read by every dairymen in Canada. Mr. Davis has been a member of the Cow Testing Association since this work was started. It was through studying the individual cow and through using a good sire that he was able to make such a decided improvement—to more than double the milk production of his former herd.

Mr. Davis hopes within the next few years to still raise the average production of his herd by over 1,000 pounds a cow. The yield of milk at the present time is from 7,070 pounds to 12,690 for the full lactation period, the average being 9,144 pounds.

#### A FARMER'S NEW YEAR SOLILOQUY

**I**f I were to die before the New Year, what would I leave for my family? Would they have enough to live on after

I am gone, or would it take such a large part of my worldly belongings to pay my debts that they would be left practically stranded in a cold and unfeeling world? Would they have to slave day after day to keep from starving? What would my fellow farmers say about me, and the men that trusted me and took my note for farm machinery? Have I ever thought of these things while working day and night? Why do I keep on year after year without serious thought of these things? Why do I ignore the invitations of my fellow farmers to organize with them and thereby better my own condition? Why do I lose sight of the fact that some of my fellow farmers are giving their time and money through our farmers' organizations to help me and others to better things? Why am I so blind that I cannot see that my salvation lies in uplift movements of the kind that are put forth all over the country by men who are unselfish and working for the good of all? Why don't I believe that the cost of feeding stock is as great as is shown by published reports? Why don't I try and find out for myself if they are right? Why don't I try and get living profits from my toil and give my family some of the comforts of life? Why don't I try and get a living profit on my products so that I can pay my debts? Why don't I try and get acquainted with my neighbours and get their good will and counsel?

After asking myself the foregoing questions, I have resolved to turn over a new leaf and from this time forth I am going to work for the uplift of farming. I am going to join in organization work and try and do my share to help the whole business of agriculture. I am going to find what it costs me to produce my farm products, and while I am doing this, I will charge for my work on a reasonable basis such as shown by reports from time to time in farm papers, and I am going to try to make a profit on all the work I do. The result must be that I will have something over each year for my family and that I can pay my bills and I will have the good will of my fellow farmers.

dulgence in strong drink. Thousands of homes have been ruined where liquor has once gained an entrance. There is no need for an open bar in any farming community.

#### POSSIBLE AVERAGE PRODUCTION

What better New Year's resolution could a dairymen make than to resolve that he would not rest content with an average dairy herd and that he would put forth efforts to double the milk production of his cattle as Mr. Arnold J. Davis, of Oxford Co., Ont., has done. The history of the Davis herd is given on page three.

If he continues to use a good sire and gets good heifers, he is reasonably certain to shortly bring about the anticipated increase.

What a wonderful change can be made in five or six years in the average herd of dairy cattle! If cow owners generally could be persuaded to take hold of cow testing work and follow it up intelligently, what an enormous increase there would be in the dairy output of this country! The reader may well ask, what have I done to bring about such an increase? What am I doing now towards it? What better time than now to start on this high road?

#### THE NEW ORDER OF THINGS

While in attendance recently at a Farmers' Institute meeting, the not uncommon sight was seen of a young man, almost a youth in years, addressing a number of middle-aged and grey-haired farmers on farm subjects, while they listened eagerly. The youth was a graduate of the Guelph Agricultural College. The farmers were practical men, many of whom had made a distinct success of their farm operations. Yet, however, none of them seemed to think it strange that this young man was able to impart to them valuable information.

Such incidents as this bring home to us the fact that the day when farmers laughed at "book-learning" is now fortunately lost in the past. We realize to-day that "book-learning" represents the results of years of careful study of the science of agriculture, not only by experimenters but by practical farmers as well. To-day those who study the principles of agriculture, as laid down in our standard works on agriculture, are able to acquire information in the course of a few months, that thousands of farmers took many years to discover for themselves. That is why our youthful graduates from our agricultural colleges are able to give practical farmers, many years their senior, helpful suggestions. The future of our agricultural industry is all the brighter because neither our practical farmers nor our agricultural college graduates, as a rule, claim to know it all, and therefore each is willing to learn from the other. This is as it should be.

#### A NEEDED CHANGE

Before long the system of taxation in Ontario will be radically changed. Nearly 300 municipalities have forwarded petitions, signed by their councillors and mayors, asking the Ontario Legislature to so amend the Assessment Act that thereafter improvement values will be taxed at a lower rate than land values. These municipalities desire to have the power to reduce the taxes on buildings and farm improvements, and to increase, if necessary, the taxes on land.

Farm and Dairy would like to see municipalities have this power. The proposed new system is one that is being followed by a majority of the farming communities in Australia and New Zealand, as well as in several of our western provinces, where it is giving infinitely better satisfaction than the system we are following in Ontario.

When we don't want dogs, we put a tax on them; when we desire to keep out goods manufactured in other countries, we put a tax on them. If we don't want our farmers to improve their buildings and surroundings, we should tax such improvements. If, however, we desire to see such improvements, we should take all taxes off them. That is why we believe that farm improvements of all kinds should be excluded from taxation and a straight tax be imposed on land.

Renew your subscription now.

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Vol. X



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ILLUSTRATED SECTION

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No. 52

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**COWDEN'S PRINCE**

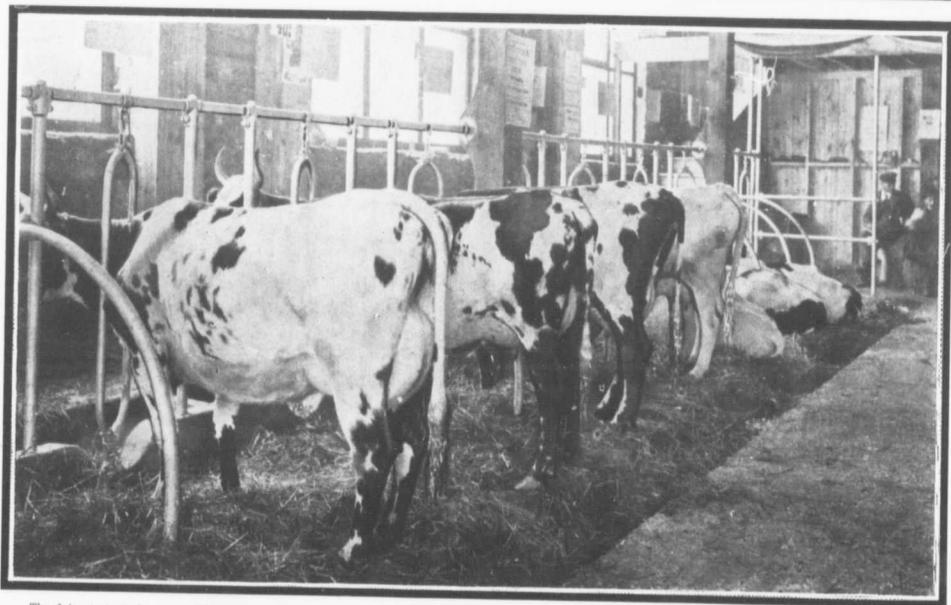
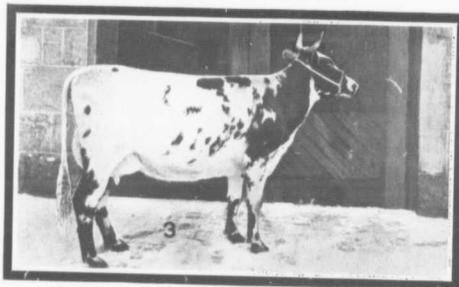
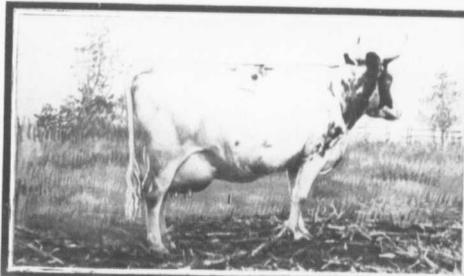
**PROUD CHIEFTAIN**

**BRIGHAM RADIANT**

**TOP SPOT**

**PLYMOUTH HORACE**

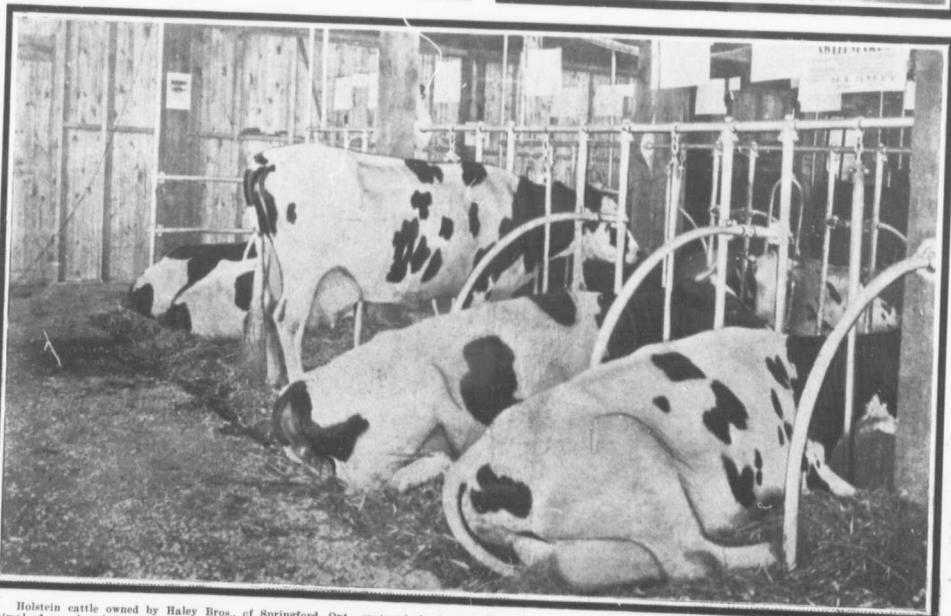
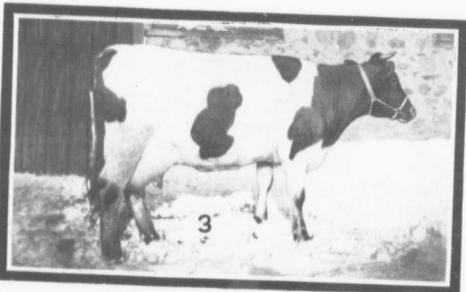
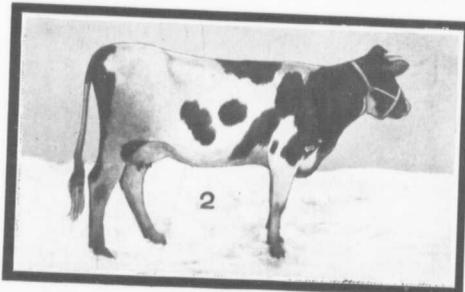
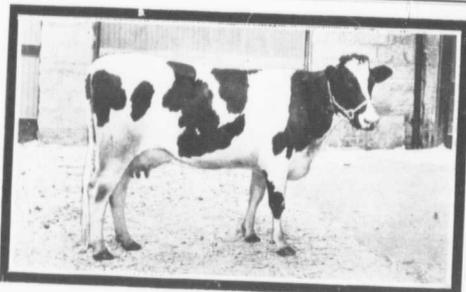
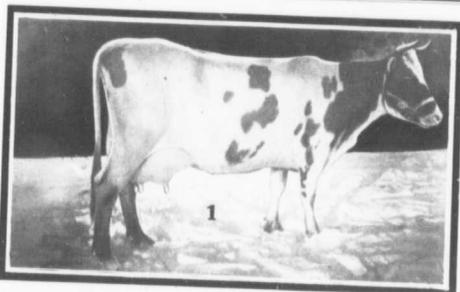
No. 1.—Cowden's Prince, Clydesdale, five years old, imported Sept., 1900. 1st prize and champion at Western Show, London, Sept., 1900. 1st prize and champion, and 12 Championships, six years old, imported 1903. No. 2.—Brigham Radiant, Hackney Stallion, champion of Canada, 1st and Champion at Guelph, Dec., '09, winner of over 20 first prizes first prizes, and 15 Championships. 1st and Champion at Guelph, Dec., 1900. No. 3.—Plymouth Horace, Hackney Pony Stallion, imported 1906; winner of over 20 first prizes and 12 Championships, six years old, imported 1903. No. 4.—Proud Chieftain, Clydesdale, four years old, imported Sept., 1907; won 1st at London, Sept. 9. 1st Guelph, Dec., 1909. No. 5.—Top Spot, Clydesdale, four years old, imported 1907, won 1st prize at Toronto Winter Show, 1908; 2nd at London, Sept., 1909.



The dairy test at the recent Winter Fair at Guelph was as usual an event of great interest. Ayrshires, as they always do, made a fine showing. For years, the cows of Messrs. H. & J. McKee, of Norwich, have either won the test or stood high among the winners, and the cows of Mr. N. Dymont, of Clappison, have been prominent in the list of prize winners. No. 1—Ayrshire cow, Queen Jessie of Springhill 2165 owned by Messrs H. & J. McKee. Winner of 1st prize in dairy test in the 2-year-old Ayrshire class in 1908, and let in 2-year-old Ayrshire class in 1909. Record this year for three days, 133 lbs. of milk, testing 4.6 per cent. butter fat and 9.87 per cent. solids not fat. No. 2—Ayrshire cow, Victoria—13788—owned by Messrs. H. & J. McKee. Winner of 1st prize in aged Ayrshire cow class, 1909. Record for three days, 116.51 lbs. of milk, testing 4.3 per cent. of butter fat, and 9.86 per cent. of solids not fat. No. 3—Ayrshire heifer, Beauty of Hickory Hill—27653—owned by N. Dymont. Winner of 1st prize in class for Ayrshire heifers under 36 months. Record this year for three days 121.75 lbs. of milk, testing 4.2 per cent. the breed.

Cut A—The Hampshire yearling wether owned by Telfer Bros., Paris, Ont., that won first for the best yearling, and the championship for the best wether of the breed.

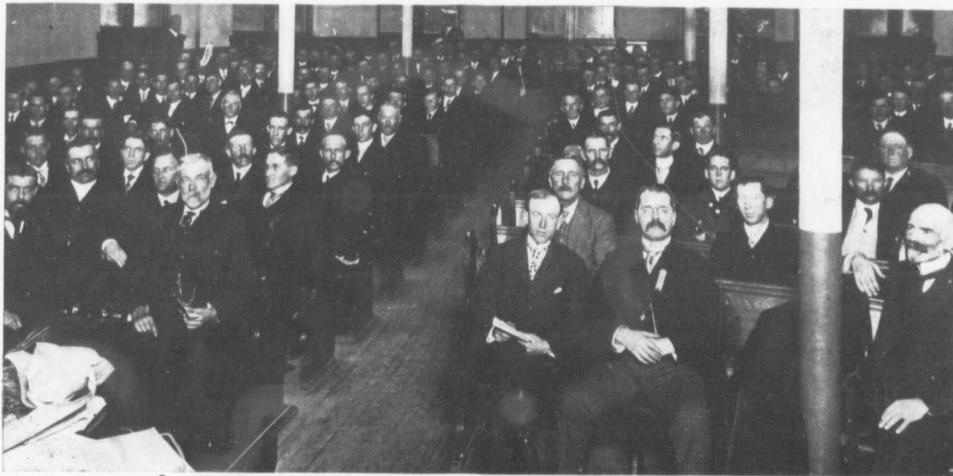
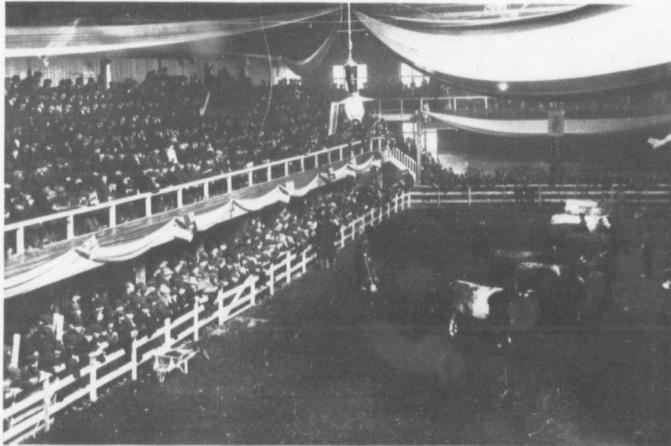
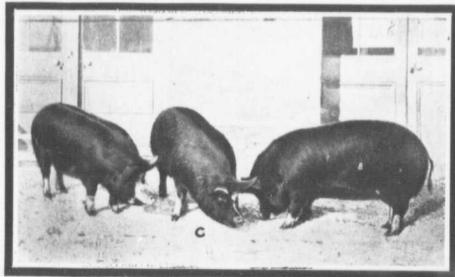
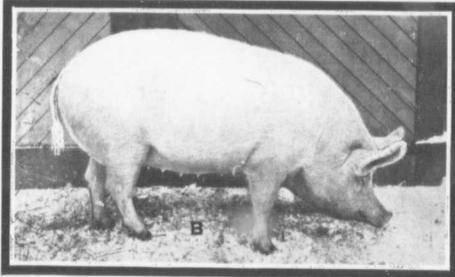
The large illustration shows a row of the Ayrshire cattle that took part in the dairy test and the stanchions manufactured by the Loudon Machinery Co., of Guelph, with which the fine new stable is equipped throughout. The Loudon Litter Carrier is also used. There was a great improvement this year in the lighting and ventilation of this stable, although the space provided for this exhibit was much too small.



Holstein cattle owned by Haley Bros., of Springfield, Ont., captured the highest honors at the Guelph Winter Fair this year, making the highest record of any animal of any breed, breaking in the aged cow class, the highest record ever made in the test at Guelph. The percentage of butter fat was unusually high.

No. 1—Holstein cow, Lady Aggie De Kol, owned by Mr. M. L. Haley. Sweepstakes, winner of the dairy test at Guelph in 1908 and 1909. Official record for 7 days, 27½ lbs. of butter. Highest day's milk, 89 lbs. 11 oz. In the Guelph test this year, she averaged 72 lbs. a day for 3 days, testing an average of 43 per cent. This is the best record ever made at Guelph by any cow of any breed. Unnumbered cut—The 3-year-old Holstein cow, Queen Butter Baroness, owned by Mr. M. H. Haley. First in the 3-year-old class at Guelph this year. She gave 157 lbs., testing 4.3 at Guelph, in 3 days, testing an average of 43 per cent. butter in 7 days. Best day's milk, 65 lbs. No. 3—The 25-month-old Holstein heifer, Maryena Artabissa, owned by Mr. M. H. Haley. She has an official record of 23 lbs. 8 oz. of butter, giving 166 lbs. of milk, averaging 46 per cent. butter fat, during the three days of the test. No. 2—The Holstein cow lanthe Jewell Mechthilde 3rd, owned by Mr. M. L. Haley, winner of the second prize in a class of 9 cows. She gave 207 lbs. of milk, testing 43 per cent. of butter fat. Her official record at 4 years is 22½ lbs. of butter in 7 days. Best day's milk, 72 lbs.

The half page illustration gives another view of the stanchions manufactured by the Loudon Machinery Co., of Guelph, among the chief features of which are their strength, ease of fastening, comfort for the cow and sanitary qualities. Some of the champion Holstein cows owned by the Haley Bros., and one or two other Holstein breeders are also shown. Note their immense frames, and large udders that show great milking qualities.



Cut B.—Yorkshire sow, owned by J. Featherston & Son, Streetsville, winner of first prize for sow under 6-mos.-old. As usual Messrs. Featherston & Son were leading prize winners in the Yorkshire classes. Cut B.—Berkshire pigs, owned by W. W. Brownridge, of Ashgrove, Ont., winners of first prize for the best three pigs of one litter, bred and owned by the exhibitor. Mr. Brownridge made a particularly fine exhibit of Berkshires and won the principal prizes, including 1st and 2nd on sows 3 mos. and under and 1st and 2nd on sow 6 mos. and under.

The third illustration shows the splendid new judging ring at the Guelph Winter Fair with a portion of the crowd that this year watched the judging of the beef cattle. The horses were also judged in this ring. The attendance was so great that during most of the fair thousands of people were unable to get near this ring. A feature of each year's exhibition is the dressed carcass-competition. Cattle, sheep and hogs after being judged alive are slaughtered and the carcasses judged again. One of the mutton carcasses is shown.

The splendidly attended meetings are one of the most valuable educational features of the Fair. The large illustration shows a portion of the convention hall at the Agricultural College during one of the sessions of the Ontario Experimental Union. A number of well known public men may be seen, including Prof. C. A. Zavitz, who is the guiding spirit of the Experimental Union and who sits in the front row at the right. Beside Mr. Zavitz sits Mr. C. C. James, Deputy Minister of Agriculture for Ontario.

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## Creamery Department

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

### Makers Paid for Testing

"The Dominion Government offers to pay any maker in a cheese factory five cents per test per cow, to make the tests for fat in connection with the work of the Cow Testing Associations," said Mr. J. N. Paget, in addressing the creamery meeting held at the Guelph dairy school recently. "I know men that have taken up this work and have made considerable money through it."

"There is no hold in dairying that needs more work done than along the work of cow testing. There is no other work in dairying wherein we can accomplish as great results as in taking up cow testing work. Through pushing this work, factory men are working directly in their own interests in that they get more milk and cream on their own territory."

### Three Pounds per Cow a Week

"Considerable work has been done throughout the past year to find out just what creamery patrons are doing in the matter of milk production," said Mr. G. G. Publow, Chief Dairy Instructor for Eastern Ontario, at the recent creamery meeting held at the Guelph Dairy School work. "Through creamery, the cream from 13,000 cows was making 4,000 pounds of butter in a week—three pounds of butter per cow."

"It would appear that makers have not given this matter the attention that it deserves. The average production should be figured out at each factory or creamery and be placed before the patrons at their annual meeting. It would start them to think. Makers should put forth a special effort along this line."

### Is Grading of Cream Practical?

The subject of whether or not the grading of cream is practical at creameries received considerable discussion at the recent creamery meeting held at the Guelph Dairy School. Mr. J. J. Parsons, Jarvis, chairman of the meeting, in opening the discussion declared that much had been said through the press that creamery men should attempt to grade the cream. Is the scheme practical for our creameries in Western Ontario?

Mr. Mack Robertson, creamery instructor, St. Marys, said he did not think that grading of cream would be very practical at the present time. What is to grade the cream? Under present conditions, the work must revert to the cream drawers. These men in most cases are not capable of grading cream and they change from year to year. When cream tanks are used, it would be impossible to separate the grades. If the scheme were practical, what would be done with the second grade? Are the makers honest enough to be trusted with the cream? "I am inclined to think," said Mr. Robertson, "that they would mix it and sell the product from it as first-class, while they would pay a second-class price to the patrons. All the product that is going out now is first-class butter, so what is the use of grading and having second-class butter? Were grading to be practised, what would be done with that second grade butter?"

**WHERE GRADING IS PRACTISED**  
Conditions are quite different in the States. Grading would be practical where the cream is sent long distances by rail. With local creameries, the best policy is not to have anything to do with second grade cream and thus the problem is solved. If you take se-

cond grade cream and attempt to grade it, calling it, and paying for it as second grade cream, the patrons would think that it was but another way of juggling them."

That grading cream was practical and that it had worked out most satisfactorily in his experience was the opinion of Mr. Forester, manager of the Pure Milk Company, Hamilton. He said, "Two years ago, when our company first took over the management of the Silver Creek creamery, we got a lot of poor cream. It was difficult to get sweet cream. As a means to bring it up to the standard we set given prices such as we could give for cream at different seasons of the year. For sweet cream testing above 24 per cent., we offered a bonus of two cents; for sweet cream under 24 per cent., a bonus of one cent."

A DOLLAR AND CENTS PROPOSITION  
The scheme worked well, for farmers discovered that the proposition was a matter of dollars and cents. As a result, they cooled their cream, delivered it sweet, and had it test over 24 per cent.; for, they reasoned, they might as well have the two cents bonus as the bonus of one cent. Last year, we offered a straight bonus for the year. We have found it advantageous to pay a bonus for sweet cream that tests above the average. It has induced a number of patrons to put in ice where their supply of water was not sufficient or convenient for cooling the cream.

"There would be difficulty in working out the practice where the cream haulers are to be the judges. In our case, however, the grading is done at the creamery, the cream being hauled in individual cans."

### Care and Location of Separators

J. F. Singleton, Kingston, Ont.  
Over 50 per cent. of farm separators are kept in stables and drive houses. Few of these are suitably located. Some few that are located in stables are in excellent quarters. The separator room has concrete floors, concrete on the walls and the room is nicely ceiled. This is as it should be, if the separator is to be kept in the stable.

The separator is much more convenient when in the stable. In that position, however, there is the disadvantage of not having hot water at hand and one should always have hot water to place the hot water at the start otherwise there is bound to be a loss of cream from the first milk passed through. Hot water also is needed for cleaning up after separating.

Have the separator room in the stable if you will, but see to it that it is placed against the outside wall, where there is an outside window available; not in the centre of the stable where all the air that reaches it must first pass through the stable.

Patrons have become so careless in the matter of washing their separators that now at least 75 per cent. of them are not washed save once a day. Some of them are washed twice a week, some only once. The Toronto City Dairy Company clarify milk by running it through the separator. The centrifugal force of separation throws all solid dirt from the milk. This all lodges in the separator bowl. Anyone who has ever washed a separator bowl after separating, must realize the great need of cleaning out the filth that collects, as soon as possible after separation has been completed.

We cannot lay too much stress on having all cream testing from 27 to 35 per cent., thoroughly mixed by pouring, if we are to take an accurate sample. If the cream is thick on top and has become heavy in the bottom, then one might pour it as often as he liked and it would be a difficult matter to get an accurate sample.

—J. W. Newman, Victoria Co., Ont.

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Figure out what such an increased return would mean on the acres that you devote to barley. Can you afford to longer delay in securing your share of this great barley? Farm and Dairy offers:

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The barley will be delivered F.O.B. Brantford, Ont.

The supply of this seed is limited. Early orders only can be certain of sharing in this seed distribution, so get after your friends now and get them to subscribe to Farm and Dairy and send in their subscriptions to

CIRCULATION DEPT. FARM AND DAIRY PETERBORO, ONT.

## Cheese Department

Makers are invited to send contributions to this department, to be discussed on matters relating to cheesemaking and to suggest subjects for discussion in our letters to The Cheese Maker's Department.

### Big Loss to Canada

A recent issue of an American exchange made the following statements in regard to the cheese industry of Canada. Knowing the facts not to be warranted by the statistics of the Farm and Dairy submitted the article to Mr. W. W. Moore, chief of the Markets Division of the Dairy and Cold Storage Commission, Ottawa. Mr. Moore's comments reproduced on this page are well worth the careful attention of who have the welfare of Canada's dairy industry at heart.

Canada is losing her hold on the cheese trade, according to a report published in the Chicago papers, which says that the production of Canadian cheese, so far this season, is approximately 1,786,000 boxes, which is only 8,000 boxes in excess of the production during the same period last year, but the price received is, on the average one cent a pound less than was obtained a year ago.

In explaining this anomalous situation exporters say the lower production is due to a considerable extent, to the increase in New Zealand's cheese output. Last year 620,000 boxes were made in New Zealand, but this year ago produced only 66,000 boxes. This increase in production has been tremendous throughout the past five or six years, and the latest reports are to the effect that this year's production will be 20 per cent. greater than that of last year.

New Zealand's make of cheese has now displaced Canada's makes on the English market, in the latter season. Especially is this true of the London district as the New Zealand boxes land their cargoes there.

The present Canadian cheese does not encourage the farmers of Canada to increase the number of their cows. The only hope for Canadian cheese in the British market lies in the possibility of New Zealand turning to the manufacture of butter, in which science New Zealanders excel. Canadian cheese is better butter than Canadian cheese, but they would rather make butter than cheese. If butter prices in Great Britain advanced New Zealanders will be encouraged to return to the manufacture of that article, and then Canada may get another show in the British cheese market.

### Statements Not Warranted by Facts

Editor, Farm and Dairy.—In reference to the article from your American exchange, which states that Canada is losing her hold on the cheese trade, that the lower average price this year is due to the increase in New Zealand's output, and that New Zealand cheese has now displaced the Canadian product on the English market, etc., there are very sweeping statements which I believe are not warranted by the facts.

#### CANADIAN CHEESE NOT DISPLACED

It is true that New Zealand's export cheese trade has rapidly increased of late years while the exports from Canada have not increased, but the time is not yet when it can be said with any foundation in fact that the New Zealand product has displaced the Canadian in the markets of Great Britain. If you will look up the cheese imports into the United Kingdom for the year ended December 31st, 1908, you will find that Canada supplied 1,541,502 hundred-weights, which was about 67 per cent. of the total importation, while New Zealand furnished 264,995 hundred-weights, or 11 1/2 per cent. of the

whole. In 1904, 1,900,556 hundred-weights were received from Canada and 84,000 hundred-weights from New Zealand, the respective per centages being 74.4 and 3.8. It will thus be seen that in four years New Zealand's exports increased 180,054 hundred-weights while Canada's decreased 359,054 hundred-weights. During the same period, however, the quantity of cheese imported from the United States fell from 291,820 hundred-weights to 105,555 hundred-weights, a decrease of 119,275 hundred-weights.

If, therefore, the writer in question was wedded to the idea that the increased quantity of cheese received from New Zealand during the last year or two must have displaced the product of another country he should not have overlooked the opportunity afforded by the decline in exports from the United States.

#### CAUSE OF SHRINKAGE IN TRADE

Just here I would emphasize the point made time and again by the Dairy and Cold Storage Commissioner that our decreased exports of dairy produce does not mean that the industry is on the wane. Increased home consumption of milk, cream, butter and cheese is the main cause of the shrinkage in our export trade. This year the trade returns will show another large increase from New Zealand from Canada, and a large decrease from the United States as for the 10 months ended October 31st, the imports into Great Britain were 327,292 cwt. from New Zealand, 1,284,264 cwt. from Canada and 50,365 cwt. from the United States.

#### A CURIOUS EXPLANATION

In the article in question the explanation is that we reduced price of cheese this year is due to the increased shipments from New Zealand, is rather a curious one. It is true that the average top price for Canadian cheese in London last month was 31 shillings a cwt., against 61 shillings, seven pence in October 1908, but if this decrease is to be attributed to New Zealand's production, it is not until October 1905 when the price of Canadian cheese was 58 shillings, or October 1904 when it was 40 shillings, or October 1895 when it was 42 shillings. A matter of fact the total quantity of cheese imported into the United Kingdom during the past 10 years has varied but little and the increase in quantity received from New Zealand during the past year or two has for various reasons, had very little effect on prices.

#### NEW ZEALAND COMPETITION

In the future, however, New Zealand competition will undoubtedly be felt more and more, provided they keep on increasing their output. They will prove formidable rivals from the fact that they are sparing no pains to develop their industry along the most advanced lines and that they possess certain advantages (vide Dairy and Cold Storage Commission's report) which may be summarized as follows:

1. Larger factories and therefore greater uniformity in quality, size, finish, etc.
2. Cheese all practically cool cured because of temperate climate.
3. Cheese well matured before being marketed. (Cheese are at least two months old before they reach consumers owing to distance from market).
4. Cheese all carried in cool storage, and hence in Great Britain during cool weather.

#### MATTERS THAT NEED ATTENTION

As shown by the statistics quoted in the first part of this letter, Canadian cheese has now a strong hold on the Old Country market but it is not going to be retained unless our dairymen, cheese-makers and others interested in the industry, avail themselves to their opportunities. Not only the essentials such as good milk, competitive cheese-makers and cool curing rooms should be closely looked after,

but matters of more detail should also receive careful attention, such as the use of strong boxes of a size that snugly fit the cheese, honest shrinkage and a proper allowance for shrinkage and the use of neat and legible stencils in marking the weights on the boxes.

In this connection it is well to note that New Zealand's cheese are shipped in strong crates holding two cheese each and are delivered in Great Britain in good condition. On the other hand some of our Canadian cheese often show 25 per cent. breakage due to careless boxing or the use of a cheap, poorly made box.—W. W. Moore, Chief, Markets Division.

### Credit for Lindsay District

"Reports from those who know, say that the Lindsay district has now reached that point where cheese is considered as good as cheese from the best factories," said Mr. Geo. H. Barr, chief of the Dairy Division, when addressing a dairy meeting recently in Lindsay. "They could not say that at one time when very common stuff was going out from this district."

"This great improvement is due to several causes. Inspector Cameron is deserving of credit for his work. The patrons and the makers also deserve a large share of the credit. Efforts should be put forth to do even better and to encourage the patrons as much as possible to produce good milk since so much depends on its condition when delivered."

### Improvements in Listowel District

Jan. R. Burgess, Perth Co., Ont.

There has been good uniform prices all season, although not as high as last year, and with the exception of one or two factories, very little trouble with bad flavored or defective cheese in this district. There has been more done than ever before in the way of improvements, such as painting, whitewashing, making factories and surroundings cleaner and more attractive. Almost every cheese maker has been doing something along this line. It is just as important that the factory, surroundings, and utensils are kept clean and bright, as it is that the patrons should send clean milk and use clean cans, milk, and surroundings, where milk is kept. When a man is trying to keep the factory and surroundings clean and tidy, it shows that he is interested and trying to make a success. It sets a good example for the patrons. Lack of cleanliness by someone, is the cause of most of the bad flavored cheese.

The quality of the milk this season has been very good. Taking the whole season through, I have never seen milk delivered at the factories so free from dirt. A great many patrons are becoming more interested in dairying and finding out that if the milk is sweet and clean, it will make more and better cheese. There are more of the old rusty cans, and cans with the tinning off being discarded, and replaced with new ones every year. Although at some places there are some rusty cans still in use, at the factories where they were properly pasteurized the milk was cleaner in flavor. When whey is pasteurized properly and tanks looked after as they should be, the acidity of the whey the following morning will not be over 3 per cent. or 35 per cent., usually about 27 to 38 per cent., and the temperature from 110 to 130 degrees, according to amount of whey in tank, position of tank and temperature of atmosphere. In two cases the tanks are so situated that it is impossible to pasteurize properly.

The thin cow must first flesh up before profits from the past season can be reckoned with.—Henry Glannding, Victoria Co., Ont. 2267



**EASY** The upper woman insisted on a simple, sanitary Sharples Dairy Tubular Cream Separator. Washes the entire bowl easily in two minutes. Holds it all here in her hands.

The lower woman's husband "didn't think," so she dragged twenty minutes over a common separator containing 40 disks. Tubulars are The World's Best, they are exceeded most, if not all, others combined. Probably ree every year than any other make of such machines sell. The manufacturing Tubulars is one of Canada's leading industries.

**HARD** separators every year than any other make of such machines sell. The manufacturing Tubulars is one of Canada's leading industries.

Write for Catalogue No. 23 THE SHARPLES SEPARATOR CO. Toronto, Ont., Winnipeg, Man.

**WE MANUFACTURE**  
Steel Cheese Vats, Steel Curd Sinks, Steel Whey Tanks, Steel Whey Leaders, Whey Butter Tanks, Water Tanks, Steel Smoke Stacks, Exhausted Ventilators, Cheese Hoops. Everything guaranteed  
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### FOR SALE AND WANT ADVERTISING

TWO CENTS A WORD CASH WITH ORDER

**FOR SALE**—Good cheese factory in Perth County. Make over 90 tons. House and lot adjoining. Convenient to school, church and town. Good locality. Box G. Farm and Dairy.

**A FINE CHEESE** and whey butter factory for sale or to rent. Apply to R. Metz, Odessa, Ont. (Can be seen at Dairymen's Convention, Belleville).

Complaints as to broken cheese boxes have been numerous in the past. Reports upon them are continually being made by inspectors of the Department of Agriculture stationed at various ports in Great Britain. There is nothing new to be said on the subject. If strong boxes are used and fit the cheese properly, breakages are reduced to the minimum. Transportation companies having steadily improved the methods of handling.—W. A. MacKinnon, Trade Commissioner at Birmingham.

**Black Watch** Remarkable for richness and pleasing flavor. The big black plug chewing tobacco. 2267



He who meets Life, as though it meant something worth finding out and who expresses his best self, is the one who has the permanent basis of happiness.

—H. W. Dreiser.

## "BLUEBELLS"

M. Morrell

On Monday of next week the farmers in 25 townships in Ontario, and the residents of 40 villages and 34 towns, will be called on to vote for or against local option. The following is a true story which carries its own moral. The incident related is but little if any worse than the tragedy that took place only a few months ago in Bobogayon, Ont., which resulted in the murder of a woman by her husband and later in the suicide of the husband. Such occasions as these help to explain the reason for the great temperance wave that is sweeping over the continent.—Editor.

ONE fine morning, as I was leisurely walking down Main Street, with no particular object in view my attention was attracted to a little dropper or carelessly thrown away a small bunch of bluebells. My attention was first attracted to the little fellow by his straggling to pick them up, but what was my amusement to see him tenderly kiss them and then carefully fasten them in the button-hole of his faded jacket. My curiosity was aroused, and I walked up to him and asked him for a shine. I looked at the boy carefully; he was very small and poorly dressed, and he was pale and thin, and the large blue eyes looked as if they were full of unshed tears.

"Half a dime," he said when he had put a final polish on my shoes. I took out a quarter, and said, as I balanced it on my forefinger, "Here is ten cents for the shine and fifteen cents for the flowers," pointing to the bluebells in his button-hole. He put his small hand under the flowers quickly and gave a quick gasp. "No, sir; I can't sell them; I was starving I wouldn't sell a bluebell."

"And why not, my little man?" I inquired. He looked at me so piteously that I was almost sorry I had asked him. I put my hand on his head and said: "Excuse me for asking; you need not tell me unless you wish to, and you can keep the quarter besides."

He looked up at me a moment and then said: "Like you, and if you care to listen I'll tell you."

"Of course I am anxious to hear why you love the bluebells."

"I will commence at the first and tell it all to you, but first let us go down there and sit down," pointing to some dry goods boxes not far from where we stood.

We went, and after seating ourselves on a small box behind some larger ones where no one would be observed, he took the bluebell bouquet and holding it in his hand, began by saying:

"It is just a year ago this month, and it has been such a long year, I thought the bluebells never would come," and then he stopped and put his hands over his eyes as if trying to shut out some horrid sight. I did not interrupt his reverie. Presently

he took down his hand, and said abruptly:

"My father was a drunkard. We once owned some fine property. I've heard mother say, but that was before I was born, for we have always been poor half a mile to town. Mother says the father drank up the farm, the oxen, horses, sheep, cows, hogs, furniture and everything we got. We got so poor the day to get food for Bess and me to eat. We lived in a little log-house, a quarter of a mile from any one; it was near half a mile to town. Mother used to walk to town every day, except Saturday, to wash for somebody. On Saturday she washed for ourselves and ironed on Sunday."

"Sunday is the Lord's day. Your mother certainly didn't work on the Sabbath!"

"Yes, sir; she had to. Mother said the Lord made six days for the keeper and one for Himself, but He forgot to make a day for the drunkard's wife. She said the saloon-keeper had confiscated the Lord's day, but she had hoped the Lord would consider her circumstances and forgive her for working on the Sabbath. She would not have no saloons she said, but there were no saloons then. There were just four of 'em, father, mother, Baby Bess and Willie, that is me."

"So your name is Willie, is it? But go on with your story."

"Well as I said, mother was away all day and sometimes she would not get home until after dark; she was very strong, and had some washes and sometimes we didn't have much to eat, because the ladies there washed for didn't have to get to ask their husbands for it. Mother always hated to ask for money after she had earned it, she said that she needed the money, or she would not wash for it, and it generally happened that when one didn't, so sometimes we got awful hungry while we were waiting for folks to pay us."

"Why didn't your mother ask for her money? It was hers after she had earned it."

"She was afraid to, for sometimes they would get mad and say she didn't half wash their clothes, and then they

would hunt up a new washerwoman. It was one of those weeks when nobody had any change. It was Friday morning, two hand very tired, and eat on Thursday and on Friday morning there was only a plate of corn-meat and about two spoonfuls of molasses. Mother baked the meal into bread and told me to keep a sharp when she woke, and to keep a sharp, look out for father, he was in town on a long spree, he was awfully cross when he was drinking. I was not safe for him to get his hands on us, so I always hid when we saw him coming. If mother was not at home, Little Bessie looked nearly go into fits for he was drinking. Don't let Bess cry if you can help it, Willie, I am afraid I won't get home always has such long washings, but I will come as soon as I can, and will bring provisions, for I must have some money to-night or we will lay asleep, and then kissed me at the door. "Be a good boy, Willie, and take care of little sister." Bessie slept a long time that morning, and I passing the time in sitting, but father, when she woke up she said the first thing "Baby is so hungry. Willie get and let me dress you, and then we will have breakfast." I had not eaten a mouthful, nor had mother tasted food before leaving home, and I was awful hungry myself. She got up, and I dressed, washed, and combed her, and when we sat down to the table then she just dropped her early head not bear it more, and sobbed and out, "Oh, Willie, I am so tired of it. I want some meat and butter." "Don't cry, baby," I said, stroking her curls, "mother will bring home something to-night." "But it is so long to wait." This is Mrs. Gray's washes for her. "Try to eat," she said, and I put a spoonful of molasses on her plate, and she did try, but she only swallowed a few mouthfuls and then she left the table. I ate a small piece of dry bread; I thought so I did not touch the molasses, "All day she kept saying she was hungry, but refused to eat what we had. It was a long day to both of us. Father had not come, and it was nearly dark, we sat both sitting on the doorstep. Bessie laid her head against my arm, and began to cry. "I'm so hungry, Willie, mother stays so late to-night." "Don't cry, baby, mother will soon be home." "Of course she will!" exclaimed George Anderson, he lived a mile beyond us, and as he spoke he tossed a bunch of bluebells into Bessie's lap. "Oh, Willie, pretty Willie," she exclaimed, while the tears dropped from her sweet blue eyes on the pretty bluebells. "Come, Bessie," I said, "let me fasten them among your curls."

"She got up and stood on the doorstep with her face toward the house. I stood behind her, and tied the bluebells in her golden curls, but he fastened the last one, when some one jerked me off the bottom step. It was father, he was drunk, and I knew by his looks that he was almost crazy with drink. He pushed me aside, and stood between little Bessie and me. Bessie turned to run, but he caught her and said, "You have father's eyes; what did Willie do to you? She was so white scared that thought she would faint. "Willie didn't do anything," she gasped out. "You rascal, what did you do to Bessie? Tell me, or I will shake the life out of you." He shook me so I could not answer. "What did Bessie caught him by the arm. "Please, father, don't hurt Willie; I was so hungry it made me cry." He looked in at the table and saw the bread and

molasses. You little white faced liar, you are not hungry; look at that table, there is plenty to eat, and good enough, too, for such a brat as you." And he shook her roughly. She began to cry, and I tried to put my arm around her, but my father caught me away. "If you can't eat anything, I will give you something to drink, and he caught her up in his arms and he carried her to the wash tub, and pond where we got wash water. It was not a frog hole, the water was as clear as lake, and it was surrounded by green grass and several large trees grew near the bank. It was a lovely place in summer and a glorious place for skating in winter. It was only a short distance from the house.

"Bessie lushed crying, but she looked so awful scared. I followed close behind father. "I'll give you something to drink," he exclaimed, when he reached the edge of the water, and he walked right into the water, and I followed, scarcely knowing what I was doing, I was so frightened. He was in the water knee deep, then he took Bessie, and put her face under one arm, he put her little curly head down under the water; she threw up her little white hands and cried out, "Oh, Willie, save baby!" just as the curly head went down. I waded around father and tried with all my strength to raise her head out of the water, but father held it down. I begged father to take her out, but he did not listen to me. She threw up her hands wildly, there was a gurgling noise, when all was still, I begged father to take her out. I prayed God to save Bessie's life, but all in vain, God was far away and did not hear our prayers, at least it seemed so to me. It seemed to me, but father, after that last lifted up Bessie, and dripping face. I called her name frantically, madly, wildly, but her blue lips didn't move, she was dead. Father carried her and laid her out on the green grass. "I guess she won't be hungry for a while," he said, as he laid her down. "I was so stunned that I neither moved nor spoke. I saw the bluebells that I had twined in Bessie's hair floating out on the water. I could not bear to see them drift away. I was so mad, I had faint little Bessie's sweet, dead face drifting away; I could not bear the thought, so I waded out after them; the water was deep, and on I went; it was up to my armpits, and on my shoulders, still the bluebells were just beyond by reach, but I must have been the water touched my chin. Bessie's dead and I caught them, and just as I did, I heard mother call, "Willie! oh, Willie! where are you?"

I looked for father, he was seated on the ground, and I saw Willie, Willie! came mother's voice. I was out of the water now, but so weak I could scarcely stand. "Bessie! oh, Bessie, I called, "Here, mother, at the pond."

"Father gave one mad leap into the water; he plunged in face down. I was so terrified I did not know what to do, but mother coming. I trembled so I could not walk. I crawled up to Bessie, and taking father's old straw hat, put it over Bessie's head, so to keep mother from seeing it. In a moment she was in sight. She saw I was dripping with water. Willie, Willie, what is this? She could not speak. She lifted the hat off Bessie's head. She stood for a moment as if turned to stone. Tell me how it happened, Willie, tell me quick." Then I found voice and told her everything.

"She heard me finish without a word, but when I had finished, shriek after shriek rent the air. She stood with speechless hands over Bessie, and shrieked such a noise that it was soon the neighborhood rocked to the spot. Father had drowned himself, and his body was taken from under the beautiful water. Bessie's mother was a raving maniac for the moment she uttered the first heart-rending



# The Upward Look

## The New Year

What has the new year in store for each of us? Will the full of joy and gladness or will it be overcast with pain and sorrow? Will we spend the moments and the days of which it is composed, for our own pleasure and profit only or will we use them so that one year from now we will feel that we are stronger and better boys and girls and men and women than we are now? How natural it is for us to entertain and ponder over these thoughts during this, the new year season. This being the case, I hope that the readers of this little corner of Farm and Dairy will bear with me if I ask you to hold over for one week the consideration of the subjects we have been dealing with in order that we may think on these things.

How solemn is the thought that some of us may never see another new year season on earth. The call from earth to heaven may come as unexpectedly as it did to the rich man who said, "And I will say to my soul, Soul, thou hast much goods laid up for many years; take thine ease, eat, drink and be merry: for God said unto him, Thou fool, this night thy soul shall be required of thee." (Luke 12: 19, 20). We, none of us can tell how suddenly we may be called home and while thinking of the days to come we should bear this thought in mind for Christ Himself warned us to "Watch therefore: for ye know not the day nor the hour wherein the Son of man cometh." (Matt. 25: 13). Let us, therefore, resolve to strive to so live that each day will find us ready for the call should it come.

Our good resolutions take different forms. It may be that we decide to give up some bad habit; or, we determine to strive to be more kind and considerate of others; to make the most of our time, to cultivate our minds and to improve ourselves in many ways. Possibly we make these resolutions with a secret feeling of misgiving born of the fact that we have often made them before and that invariably they have ended in failure after a few hours or days or weeks of effort on our part. What we ask, is there in our making good resolutions only to break them?

There are two different ways of making resolutions. Success or failure is determined by the method we adopt. If we rely upon our own will power and determination to enable us to remove some sin from our lives or to improve our character then failure is certain. We are no more able to change ourselves than we are to lift ourselves by our boot heels. Sin is natural within us and cannot be removed by anything we can do.

If, however, we ask God to help us carry out our good intentions, if we pray to Him frequently for the strength we need, if we put our trust in Him, then success is assured and the coming year will be the happiest we have ever known. A power greater than any we possess must come into our lives before we can gain the victory over sin. This power can be obtained only from God and it is ours for the asking.

Unless we are on our guard it is easy for us to overlook the fact that every moment of every day Satan is watching for an opportunity to lead us into sin. The Evil One is stronger than we are. That is why, when we rely on our own strength to overcome sin, we are sure to fail. That is why, also, we are told to, "Put on the whole armour of God, that ye may be able to stand against the wiles of the devil. For we wrestle not against flesh and blood, but against principalities, against powers,

against the rulers of the darkness of this world, against spiritual wickedness in high places." (Ephesians 6; 11, 12). When, however, we put on the whole armour of God and ask Him to give us the strength and faith that we need we will not be disappointed for Christ has said: "If ye abide in me, (that is, trust in God) and my words abide in you, ye shall ask what ye will, and it shall be done unto you." (John 15; 7). Is not that a glorious promise? Accept it! Believe it! Act upon it!

One thing more. Have faith. Do not be discouraged by apparent defeat. Look upon each day (not only the first day in January) as the beginning of a new year. Be content to receive only enough strength for each day's needs and each day ask for a fresh supply. Then will you learn the secret of right living and the year 1910 will be the happiest that you have ever known.—I.H.N.

## Improved Ironing-Board

The ordinary ironing-board may be made much handier for ironing garments of all descriptions, but especially skirts and shirts, by the use of a



saw, plane and square. Notches are made near the ends, to allow the tips of two chairs to pass through, while a clothes-basket or some heavy object is placed on one of the chairs to hold it.

If the cheese is too dry to serve with the apple pie, grate it and spread a layer over the pie while it is still warm (not hot), as this would melt the cheese and make it tough.

## A Prayer

Let me do my work each day and if the Darkening hours of despair overcome me, May I not forget the strength that comforted me In the desolation of other times.

May I Still remember the bright hours that found me Walking over the silent hills of my childhood Or dreaming on the margin of the quiet river, When a light glowed within me, And I promised my early God to have Courage amid the temptations of the changing years. Spare me from the bitterness and sharp passion Of unguarded moments. May I not forget That poverty and riches are of the spirit. Though the world knows me not, May my thoughts and actions be such As shall keep me friendly with myself.

Lift my eyes from the earth and let me Not forget the uses of the stars Forbid that I should judge Others lest I condemn myself Let me not feel the glamour of the world, But walk calmly in my path. Give me A few friends that will love me for what I am; And keep ever burning before my vagrant steps

The kindly light of hope, and though Age and infirmity overtake me, and I Come not within sight of the castle of my dreams, Teach me still to be thankful for life, And for time's olden memories that are Good and sweet; and may the evening twilight Find me gentle still.

\*\*\* MAX EHRLMAN

Get one of our Fountain Pens.

## Hints for the Home

To beat the whites of eggs quickly, add a pinch of salt.

To brown pastry, make the crust just before putting it in the oven with sweet milk.

In making a crust of any kind do not melt the lard or butter into the flour or your crust will be spoiled. To make bread raspings with little trouble, crusts of bread should first be well browned in the oven and then passed through the mincer. Crumbs, whether dried or toasted, must always be kept in stoppered bottles.

The secret of an especially delicious omelet served in a certain home came out the other day. More yolks than whites are used and a little rich cream goes in when it is to be plain or is to be seasoned with cheese.

When using eggs, break just enough of the shell to admit the contents to come out, at the smaller end of the shell. After washing them out carefully, put them away till jelly making time. Fill with jelly and paste paper over the opening. This is a nice way to carry jelly on a picnic.

Cherries, raisins, figs and dates should be screened before using. Put them into a strainer over a steaming kettle. The sand will fall to the bottom of the kettle.

This hair wash is very strengthening. One ounce of tincture of cantharides, one ounce and a half of olive oil, one ounce of rosemary, shake all well together, and apply to the roots of the hair, with a small sponge once a week. Then rub the scalp with the finger tips till the grease has sunk into the skin.

## Caution in Ordering

We would ask all subscribers when sending in money for patterns, premiums or subscriptions to use great care in enclosing their full names and addresses. Several pattern orders are still holding, owing to no address being sent with the money. Several give no size when ordering patterns, and several fail to enclose money. All these things are necessary and essential for the filling of orders promptly and satisfactorily. Above all, send your name and address. These are the most essential of all.

# MUSIC FOLIOS FREE

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Look over the above list. See which folio you want. Send in your renewal to Farm and Dairy or One NEW Yearly Subscription, and we will send you your choice at once. Address:

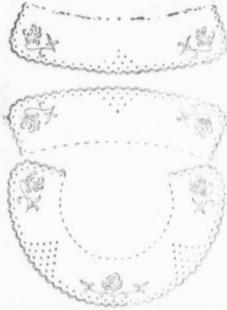
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## Embroidery Designs

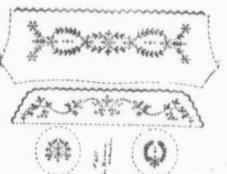
Designs illustrated in this column will be furnished for 10 cents each. Readers desiring any special pattern will confer a favor by writing Household Editor, asking for same. They will be published as soon as possible after request is received.



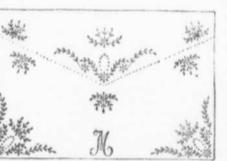
418 Design for Embroidering a Dutch Collar and Rolled-Over Cuffs for a Miss's House or Shirt Waist.



464 Design for Embroidering a Bodice Garniture.



451 Design for Embroidering Infants' Caps in Two Styles. Including Patterns for Caps.



466 Design for Embroidering an Envelope Case for Linenette. The Initial is not included in the design. Any preferred one can be used.

## OUR HOME CLUB

### READING ALONE IN THE HOME

The "Parson" in his interesting letter touched upon a subject of prime importance not only in farm house but every home where there are young people, namely the value of reading aloud.

The habit of reading aloud is a delightful feature in the life of many families and it may be a source of profit as well as pleasure to old and young.

The secret of perfect companionship between parents and children is a partnership of pleasure as well as work—the parents who would help their children fast, as they grow older must play with them. The practice of reading aloud is one way of keeping boys and girls of active, inquiring minds, at home.

We often fail to place the right or educational value of good books in the home. Familiarity with the best writers teaches children to use their own language with ease and accuracy. Schools can do a little but they cannot do much, children hear and learn from slowly habits of speaking at home. Children learn far more in the hourly intercourse of the home than they learn in the few hours during which they are committed to the teacher's care.

Of course if home reading is to be effective it must be interesting. Let children choose their subjects. The parents must use their mature knowledge and be the guides. If they want adventure, give them the very best. One evening a week devoted to reading aloud through interesting stories, travels, histories, biographies, popular books on nature study or science would, I am certain, add immensely to the attractiveness of many homes and prove a potent influence to protect our boys and girls from the fascination of pleasures less wholesome and stimulating.—"The Pastor's Wife."

### GIVE THE GIRLS A SHARE

When Farm and Dairy comes, the first thing I do is to look for Our Home Club and sometimes I am rather disappointed. Then again, there is a subject written on that makes me feel like taking up my pen and responding.

That was good regarding "Girls Getting Their Share," as well, or equal with the boys on the farm, and why should they not? They work as long hours, spend their time waiting on the boys, cooking, baking, laundry, scrubbing, while if they were out for themselves in office or profession, they would be earning and laying up for themselves. Most certainly, I maintain give the girls equal shares with the boys.—"Aunt Eva."

### HELPING WIVES AND HUSBANDS

As winter continues there seems to be a change from the work of the summer, but in many cases it cannot be said to lessen the work. As some might think, it is merely a case of from "Lad to horse." There are the numberless things to be stored for winter, storm doors and windows to hang, windows to put up, stoves to change, pipes to clean, etc. Then there is the sewing to be done for winter and the busy housewife often wonders when she will get through it all.

On the other hand, the husband is working early and late and thinking his lot is a hard one. Each does their work, perhaps not always uncomplainingly, but it never occurs to them that a little change once in a while would benefit both. Did you ever notice a farmer, perhaps a good one too, at work in the barn on a wet day when he could not get much and pass the coal bin or wood pile as the case may be. It would never enter his head that the wood box or

coal scuttle might be empty. Possibly the wife is churning and trying to take care of a cross baby at the same time. He could turn a fanning mill or pulper all day, but a churn that is woman's work. As for taking care of baby for an hour, well he has it so seldom he would likely think it was some stranger had come in and it would cry all the harder.

There are numberless things about the house that a man can do just as well as a woman, and very often they don't. It is the women's own fault they don't. They've got to never win. You may be sure if you have not courage to ask them they will never notice or at least, pretend not to. We too often forget that it is the many little kind acts done in the home that makes the "Happy Home" which we all long for.

It has been said every woman craves to be loved. However true this may be it is a very ungrateful wife who does not appreciate a kindness and in return there are so many little things she can do to help her husband over a hard place.

Some women draw the line when they are asked to go outside the house to do anything. This is folly. I do not approve of a woman going into the fields to work but there are times when a light job not lasting too long, is a benefit to a woman and a change from the regular routine of house work. She gets the fresh air and it gives her appetite for her meal. Very often by helping each other in this way, you may be able to spend a few hours talking to a neighbor. If we would only let go this selfish view of things and try to help each other more we would not have so many "cranks" that don't turn.—"Aunt Jane."

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### The Why of Charity

Question the kind of charity that does not let its left hand know what its right hand doeth; that suffereth long; that vaunteth itself; that leaves the ninety-and-nine for the one; rather than see whether wrestling with the dim brute power of fact followed by effective action, publishing of work done, might not have saved the ninety-and-nine where it saved but one. Real charity goes after the one only where there is a need, it will benefit the ninety-and-nine. Charity may be as selfishly studied as trade, but benefiting may be derived therefrom, but almsgiving is too often the charity of the selfish. Charity reaches the heart via the brain; charity teaches charity calls nothing common or unclean; charity uses the money of capitalists, the method of Lusiacy of the cripples, the method of the widow, the advertisement of success achieved. Charity fights to win. Let us in future see to it that our charity is of the kind that never fails.

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FARM AND DAIRY  
PETERBORO, ONT.

## The Sewing Room

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

### GIRL'S BLOUSE 6455



Such a blouse as this one belongs to every girl's wardrobe, whether she attends colleges or does not. It is simple and girlish, useful and practical, and is made in the extreme. It can be made from serge or from broadcloth or from similar material. It can be worn with a plaid skirt or to match or can be used separately and worn over an odd skirt, as liked.

Material required: For medium size is 2 1/2 yds 27, 2 1/2 yds 32 or 1 7/8 yds 44 in wide, with 3/4 yd 27 in wide for turned over portions of collar and cuffs, 7/8 yd 27, 1 1/4 yd 44 or 1 1/2 yd 44 in wide for facing for lower edge.

The pattern is cut for girls of 14, 16 and 18 yrs of age and will be mailed on receipt of 10 cts.

### BLOUSE OR SHIRT WAIST 6482

The shirt waist that is closed at the front in the double breasted style makes a novelty. The two plaits at each side of the collar provide becoming fullness.

Material required for medium size is 3 1/2 yds 24 or 27, 3 1/2 yds 32 or 3 1/2 yds 44 in wide with 3/4 yds of silk or velvet for collar.

The pattern is cut for a 32, 34, 36, 38, 40 and 42 in bust, and will be mailed on receipt of 10 cts to any address.

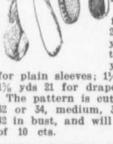


### PLAIN AND FANCY SLEEVES 6483

Here are three sleeve patterns and two fancy, that will be found invaluable both for new gowns and for remaking. The sleeve that is trimmed with braid is well adapted to two materials. The plain sleeve is simple and can be used with or without trimming while the third sleeve is novel in the extreme.

Material required for medium size is 2 1/2 yds 21 or 27, 1 1/2 yds 31 in wide for lined sleeves, 1 1/2 yds 21 or 27, 1 1/2 yds 41 for plain sleeves; 1 1/2 yds 18 in wide with 1 1/2 yds 21 for draped or fancy sleeves.

The pattern is cut in three sizes, small 32 or 34, medium, 36 or 38, large, 40 or 42 in bust, and will be mailed on receipt of 10 cts.



### CHILD'S DOUBLE BREASTED COAT 6531

The simple double breasted coat buttoned right up to the throat is with the most satisfactory for the small child. This is a fashion with a pretty turned over collar.

Material required for medium size (4 yrs.) is 3 1/2 yds 27, 2 yds 44 or 1 1/2 yds 51 in wide, with 3/4 yd of velvet.

The pattern is cut for children of 1, 2, 4 and 6 yrs of age and will be mailed to any address on receipt of 10 cts.



of 10 cts.

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

## OUR

CO

TRURO— for the past year has been very busy. The average 10 days a week, but about equaling the last three weeks there was but from little rain the present early growth in Lunenburg on so frequent the province have been better than any other county out the humid that various growth as a usually considerable the growth unsurpassed better turf of Scotland than in denials state has been free for frosts in Jersey, but in which affected in their present end of the until the in Crop River

H

CHAPMAN— which has been supplied with use this week. The institute were fairly while not in demand for good and satisfactory. and chickens are in good SIDNEY Y. cold. We for light on the grass and meadow frost is to 816 the 40c; barley 70c; bran, 80c; clover, 80c; milk cows, 87c; chickens, 60c. J. K. W.

WI

TROT— wife is fine. ing same at \$1.04 a at 12c; hay ton. Some manure to do. Well the neighbor

M

MELBOUR wintering 2 them will 1 the spring for them through more herds of grain cattle and nice a sight head of fine wool-to-do industry is a good feed is abundant. "Taking all prices, we





to, in 1880. From there he studied in New York, Buffalo and Pittsburg. He founded the Kingston Veterinary College, acting in the capacity of principal. The last position held by Dr. Bell was that of local Government Veterinary Inspector.

A great saving can be made when clearing land if modern explosives are used instead of chopping up stumps, dragging them out to the edge of the clearing stones by hand. Time is money on the farm. Even where property is cheap, it pays to own clear fields. A little money in blasting powder, such as is manufactured by the Hamilton Powder Co., as advertised elsewhere in this issue, will save much valuable time to those living in fields to clear. Before undertaking to clear land or take out stumps, write the Hamilton Powder Co., for their booklet giving detailed instructions about blasting.

Being a farmer from a boy, I have enjoyed Farm and Dairy, and consider it of much value to the farmers. I place the copy I have at the disposal of my students and hope it will be of some value to them—J. L. Mitchener, B. A., Science Specialist, Caledonia, Ont.

COW TRANSFERS FOR NOVEMBER, 1909

(Continued from page 24)
Jacobina Emily De Kol, Walter M. Lea to J. M. Laird, Kelvin Grove.
Jennie Poch Corneil, Ira Nichols to W. A. Harwood, Woodstock, Ont.
Jessie White, Ira Nichols to W. A. Harwood, Woodstock, Ont.
Jewel De Kol Butler Girl, W. J. Trellis to Mrs. Annie Machin, Cowley, Alta.

Prize Farms Competition

The judges in the Prize Farms Competition were unable to complete their scores in time to make any announcement in this issue, as to the standing of the competitors. Some definite information as to when the definite results will be published will be given next week.

Jewel Dirkje, J. D. Truesdell to A. C. Hallman, Breslau, Ont.
Josephine Betty De Kol, W. W. Brown to F. E. Caine, Sault au Recollet, Que.
Jennie Corneil, F. Trotter to Rev. J. A. Lecnyer, Vermer, Ont.
Kitty of Pleasant View, D. G. Gooderham to George Forester, Gormley, Ont.
Kornelyde Natyve Queen, Ogden Stewart to F. E. Caine, Sault au Recollet, Que.
Kornelyde Triumph Princess, Trellis to Mrs. Annie Machin, Cowley, Alta.
Lilly Beatrice De Kol, George C. Gilling to T. E. N. McCullough, East Dunham, Que.
Lady Elgin, J. F. Lesson to H. W. Evans, Aylmer, Ont.
Lady Gem of Cherry Ridge, J. D. Truesdell to A. C. Hallman, Breslau, Ont.
Ladyship of Fairview, Holland Connor to Jacob Brown, Windsor, Ont.
Lily Woodcrest Paxton, Gordon H. Manhard to A. C. Hallman, Breslau, Ont.
Leora Grace De Kol, George C. Gilling to Gordon H. Manhard, Manhard, Ont.
Lucy Grace De Kol, George C. Gilling to Manhard to Wm. C. Stevens, Phillipville, Ont.
Lilly Kornelyde, Ogden Stewart to F. E. Caine, Sault au Recollet, Que.
Lilly Rideau, Hector Wood to R. H. Johnston, Tweed, Ont.
Lily White, Ira Nichols to J. M. Walton, Woodstock, Ont.
Lisbeth, Andrew Kennedy to Wm. Higginson, Inverman, Ont.
Lucie Kent Bessie F. Lesson to M. Armstrong, Tillsonburg, Ont.
Luzie Kent Abbecker, F. Lesson to Homer Smith, Winnipeg, Man.
Lucy Tessen De Kol, J. D. Truesdell to The Rev. David Gilling, Ont.
Lucy Tessen De Kol, Thomas Davidson to A. C. Hallman, Breslau, Ont.
Margie J. A. Fride De Kol, Lesson to Homer Smith, Winnipeg, Man.
Margie Poch, Ira Nichols to Thomas Pearce, Cornell, Ont.
Margie Poch 3rd, Ira Nichols to Wm. Kennedy, Tillsonburg, Ont.
Maggie Poch, Ira Nichols to Wm. Walton, Kelvin, Ont.
Malvina Pieterke Dunreath, J. M. Cline to Joseph Newell and Son, Springfield, Ont.
Maple Grove Belle De Kol, Albert to R. L. Hicks, Dalhousie Jet, N. B.
Maura Grace Lina, H. Albert to Clarence Bollett, Tavistock, Ont.
Maud of Evergreen, Andrew Kennedy to Wm. Higginson, Inverman, Ont.
Maud Simpke De Kol, D. C. Platt & Son to John Poch, Campbellford, Ont.
Merina, Fride De Kol, H. G. Benfield to Ezekiel Trent, Woodstock, Ont.
Meris Niessen De Kol, Truesdell to A. C. Hallman, Breslau, Ont.
Mortie Rue Niessen, J. D. Truesdell to A. C. Hallman, Breslau, Ont.

Midsummer Jewel, A. T. Walker to Walter Sons, Walkerville, Ont.
Miss M. A. Arden Peers to B. G. Cook, Ingersoll, Ont.
Modesty of Ormond, D. C. Platt & Son to Carl Smith, Arksia, Ont.
Mollie of Bayham Ind., W. F. Pound to Homer Smith, Winnipeg, Man.
Monie Grace Ind, George A. Ferguson to Robert McQueen, Courtyard, Ont.
Moulinette, A. C. Hallman, Breslau, Ont. & Son to Carl Smith, Arksia, Ont.
Moulinette, D. C. Platt & Son to T. J. Lowry, Highland Grove, Ont.
Mutual Thelma, G. A. Gilroy to Joseph Goodrich, Aylmer, Ont.
Nancy Lee De Kol, A. C. Hardy to G. A. Gilroy, Gilmour, Ont.
Netherlands King's Lass, C. J. Gilroy to C. H. Hyde, Lyle, Ont.
Netherlands Ind., Ira Nichols to Alfred Kirk, Currie, Ont.
Nim, Genn Lutsker, J. D. Truesdell to A. C. Hallman, Breslau, Ont.
Nudine Pieterke, H. E. George to S. W. Carson, West Lorne, Ont.
Ottile Hengerveld, W. W. Brown to Benj. Leavens, Bloomfield, Ont.
Pauline Butter Girl, Thomas Davidson to A. C. Hallman, Breslau, Ont.
Pernilla, J. B. Arnold to Edward Davis, Aylmer, Ont.
Pieterke, J. B. Arnold to Edward Davis, Aylmer, Que.
Pieterke Rose, Holland Connor to Jose Goodrich, Aylmer, Ont.
Pina, F. X. Trotter, to Rev. J. A. Lecnyer, Vermer, Ont.
Polly Jane Kornelyde, Ira N. Marshall to H. E. George, Crampton, Ont.
Pouch De Kol, G. A. Gilroy to Maurice G. Gilroy, Gilm. Belle, Ont.
Pouch De Kol, G. A. Gilroy to Maurice G. Gilroy, Gilm. Belle, Ont.
Princess Agnes De Kol Ind., H. A. Layton to W. Miller, Tremblay, Ont.
Princess Bonnie De Kol 3rd, J. D. Truesdell to A. C. Hallman, Breslau, Ont.
Princess Clothilde, J. Jones, Jr. to Jno. Robinson, Simlarville, Ont.
Princess Clothilde, F. X. Trotter to W. McGregor, Lanseater, Ont.
Princess Clothilde Calamity, Fred S. Ferguson to A. S. Maines, Sweet's Corners, Ont.
Princess Abbecker Wayne, Walburg Rivers to Wm. Cockburn, Waterdown, Ont.
Princess Calamity Albino, Fred S. Ferguson to A. S. Maines, Sweet's Corners, Ont.
Princess of Culloden, Arthur Rooke to Jas. Rooke, Culloden, Ont.
Princess of Culloden, Jas. Rooke to W. C. Pouch, Durham Centre, Ont.
Queen of Hartley, H. Manouze to Jas. Michell, Portage La Prairie, Man.
Queen of Hartley, H. Manouze to A. C. Hardy, Brockville, Ont.
Rhoda Butter Girl, Edward M. Bull to F. E. Malloy, Brockville, Ont.
Ries Lake Victoria, Robert Campbell to S. Macklin, Winnipeg, Man.
Romalind Poch, S. Macklin to F. A. Legge, Muferson, Ont.
Ruby Leone De Kol, Davidson to Gordon H. Manhard, Manhard, Ont.
Ruby Leone De Kol, Lesson to Homer Smith, Winnipeg, Man.
Sadie Rooke, Logan Bros. to J. D. Irving to A. C. Hallman, Breslau, Ont.
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Speckie, W. W. Brown to C. C. Hardy, Brockville, Ont.
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