

Issued Each Week—only One Dollar a Year

VOL. XXIX.

NUMBER 2.

# FARM AND DAIRY

## RURAL HOME

PETERBORO, ONT.

JANUARY 1910.

U.S.



A REAR VIEW OF THE BUILDINGS ON A FIRST PRIZE FARM

Riverside Farm, Caledonia, Ont., the home of Mr. J. W. Richardson, some 16 miles from Hamilton, is one of those farms of which every person who has visited it, speaks in praise. The farm consists of 450 acres. Over 100 acres of this area is devoted to growing alfalfa. The farm buildings, as illustrated above are not elaborate, but they are large and commodious and amply serve all requirements. The strong points of the Riverside Farm in comparison with those of other farms in the Dairy Farms Competition may be learned from a study of the scores, given in tabulated form on page 5 of this issue.

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is the separator you want. Never out of order, easy to clean, has a **Self-Balancing Bowl** which insures a satisfactory working capacity all the year round.

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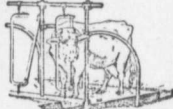
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### A GREAT IMPROVEMENT IN OUR DAIRY METHODS

The Past Year the Most Successful on Record. Dairy Products of Higher Quality Than Ever Before.

The key-note of the 33rd annual convention of the Eastern Ontario Dairymen's Association, held last week in Belleville, was that the dairy season of 1909, had shown more real, substantial dairy progress than at any other season in the long history of the association. Speaker after speaker emphasized this point. Close, behind it, however, came the announcement that we are still far behind our chief competitors, the Janes, and in some respects behind even the dairymen of New York State. By the adoption of improved methods, it was claimed that we can revolutionize our system of dairying and double and treble the average production of our cows and farms. Hon. J. S. Duff, Mr. C. C. James, Pres. G. C. Creelman, Mr. J. H. Grisdale all emphasized this point. Incidentally it was brought out by Dairy Commissioner Rueddick that our cheese industry has nothing to fear from the competition of the dairymen of New Zealand.

#### THE PROGRESS MADE

An opening note of encouragement was struck by Mr. G. G. Publow of Kingston. Mr. Publow is the chief dairy instructor and sanitary inspector for Eastern Ontario. Under his direction are some 26 dairy instructors whose duty it is to visit all the cheese and butter factories in Eastern Ontario. Mr. Publow himself, during the past season, visited all parts of the eastern half of the province and came in contact with thousands of farmers, cheese and butter makers and factorymen. When, therefore, Mr. Publow said—"We have just completed the most successful season in the history of our instruction work," it was recognized that progress had been made. Mr. Publow's report is published on page 12.

#### IMPROVEMENT CONFIRMED

Mr. H. A. Hodgson, of the well-known firm of Hodgson Bros. & Rowson, cheese and butter exporters, Montreal, confirmed the improvement that was noticeable during the year, when he said that from the Atlantic right through to Sarnia, Ontario, the quality of the cheese and butter manufactured during 1909 was higher than ever before. A warning was given by Mr. Hodgson, however, that further improvements are still needed, one of these being in the proper stenciling of the weights on boxes.

#### OFFICERS, 1910

The following officers were elected: President—Senator D. Derbyshire, Brockville; J. R. Dargavie, Elgin, both for life; Vice-Pres.—Henry Glendinning, Manilla, Ont. 1st Vice-Pres.—J. H. Singleton, Smith's Falls. 2nd Vice-Pres.—T. A. Thompson, Almonte. Sec.—R. G. Murphy, Brockville, Ont. Treas.—Jas. R. Anderson, Mountain View.

Auditor—John Kerr, Belleville; A. S. White, Sidney Crossing. Directors—John H. Singleton, Smith's Falls; Neil Fraser, Vankleek Hill; Edward Kidd, North Gower; W. H. Hirstead, Bearbrook; John McGregor, Alexandria; William Montgomery, Gravel Hill; J. T. Payne, Brinston; James A. Sanderson, Oxford Station; J. B. Wilson, Wilstead; T. A. Thompson, Almonte; Jos. MeGrath, Mount Chesney; Charles Anderson, Overton; James Whitton, Wellman's Corners; Alex. Hume, Menie; G. A. Gillespie, Peterboro; Henry Glendinning, Manilla; W. S. Blakely, Cherry Valley.

#### THE SEASON'S TRADE

The Honorary President, Senator D. Derbyshire of Brockville, who this year as usual, was the life of the convention, pointed out that the exports

of cheese for 1909, when present stocks go forward, will be about \$20,000,000, or practically the same as last year. The exports of butter will be about \$508,025, or some seven million dollars less than for 1906, the banner export year. Senator Derbyshire showed that this decrease in exports does not mean that there has been any decline in our dairy industry. The butter that we formerly exported is now being consumed in Canada as a result of our increased population, over 10 million people having come to Canada during the past few years. "When you consider the milk, cream, butter and cheese consumed by our cities, towns and villages," said Senator Derbyshire, "you will find that an immense increase in consumption has taken place compared with only three years ago, and our home market can be easily extended. Produce fine clean milk and cream and we can double our business."

#### OUR HOME MARKET

Hon. J. S. Duff, Minister of Agriculture for Ontario, surprised his audience when he stated that slightly over one-third of the population of Manitoba lives in the city of Winnipeg, which means that considerably over one-third of the people of Manitoba are not producing anything and therefore have to depend on the farmers for their supply. Mr. Duff ventured the opinion that the proportion of city to rural population is equally large in Ontario. The great increase that is taking place in the population of our cities and towns is developing a home market the importance of which can hardly be over-estimated.

#### BETTER WEALTH DISTRIBUTION

Mr. C. C. James, Deputy Minister of Agriculture for Ontario, who last summer visited several European countries, stated that we need to learn in Canada how to distribute our wealth, so that an undue proportion of it will not flow into the hands of a comparatively few people. He stated that he had seen recently in a Montreal paper that Montreal now has over 100 millionaires. The ideal conditions in a country are not those which make it possible for a few men to get immensely wealthy while many are in absolute poverty. What we should aim for is to create conditions under which it will be possible for all the people to prosper in common. Under existing conditions it is possible for people in cities like Toronto to derive great wealth through the efforts of the farmers of the country, whose productive work it is that builds up the cities. While in Denmark and Sweden the farmers found the people prosperous and contented, although such a personage as a millionaire was practically unknown.

Mr. James thought that agriculture is not receiving the attention in Canada that it deserves. The Dominion Government, for instance, does not hesitate to vote \$10,000,000 to build a bridge across the St. Lawrence, although a suggestion to spend such an amount for agricultural purposes, direct would receive scant consideration. Anything that helps to increase the prosperity of a country helps to benefit the whole community. If it were this rightly understood, our governments, including the provincial as well as the dominion, would be ready to spend more for agriculture.

Mr. James claimed that the farmers of Ontario do not realize the possibilities of the soil. Many farmers are rushing out to the west, when if they only knew it, there are numerous openings in Ontario, including Prince Edward, which produce wheat in three times as much wealth per acre as can be obtained on western lands.

Hon. Mr. Duff said that if our farms were properly looked after and

(Continued on page 4)

Issued  
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&

## RURAL HOME

Only \$1.00  
a Year

Vol. XXIX.

FOR WEEK ENDING JANUARY 13, 1910.

No. 2

### IMPRESSIONS GAINED FROM JUDGING DAIRY FARMS IN WESTERN ONTARIO

Mr. Henry Glendinning, the Judge of the Dairy Farms in Districts Nos. 3 and 4, Talks About Some Features of the Competing Farms that Came Under His Inspection

"GOOD buildings, good stock, good farms and these for the most part well managed!" Such were the comments made by Mr. Henry Glendinning of Manila, while discussing the merits of those farms in Western Ontario competing in the Prize Farms Competition that was conducted during the past year by Farm and Dairy. "Good as these farms were," said Mr. Glendinning, who was the judge, "none of them were perfect. Those scoring high in one particular were invariably low on some other point. There is room for improvement on all of the competing farms notwithstanding the fact that individually and collectively they rank much above the average farms of this province, or of the Dominion.

"The character of the dwellings and of the stables on the competing farms are particularly worthy of note. Many of the houses were exceptionally good. These were well furnished. Many of them were supplied with water on tap. Barns, almost without exception, were supplied with water right in the stables where the stock could help themselves at will. These barns were large and commodious, well lighted, and many were painted. Cement floors and mangers were commonly found. The majority of the stables were white-washed and were kept neat and clean.

#### LACK OF VENTILATION

"But, good as these stables were in these respects," continued Mr. Glendinning, "with one or two exceptions all could be greatly improved as regards ventilation. It would appear that this matter of ventilation is the weakest point in the dairy barns of Ontario. Any attempt at ventilation in the majority of instances was by means of the windows, by tile in the walls and by feed-

ing chutes, systems, which while better than none, are far from adequate.

"Save in one instance, all the competitors were making an attempt to practise a rotation of crops. Fields had been enlarged so as to better permit of a suitable rotation and to economize in the matter of labor and time through the use of large implements hauled by three or four horse teams. The best results in the way of crops were evident on those farms that practised a short rotation. The three year rotation, which is clover, roots or corn, and then grain seeded down, had given distinct results on the farms where it had been practised. The four year rotation was perhaps the most popular although some practised a five or a six year rotation.

#### AN UNFAVORABLE YEAR

"The year 1909 was not the most favorable one for crops and for that reason it was a bad season for many to show just what they can do with crops. It will be remembered that it was wet late in the spring, that being followed by extremely dry weather. Crops, therefore, did not show up to advantage. Especially was this true of those farms in the neighborhood of Brampton. They suffered much from the dry weather. Further west there was more rain at this season. They were caught by drought, however, later in the season when in the more easterly districts there was plenty of rain.

"It was not difficult to distinguish between those farms that had been under-drained and those where drainage was lacking. More or less tile draining was a part of almost every competing farm. Some competitors had many miles of drains and on these farms invariably were to be found, the best crops. Where the drains

were, the crops were found to be the best on the lowest land, whereas in nearby fields, land, equally as low, was almost unproductive owing to the lack of underdrainage which drainage was vitally essential in a season like the one just past.

#### GROWING COW FEED ONLY

"The suitability of the crops grown on these competing farms is worthy of note. Those who stood the highest, for the most part grew only cow feed. Some sold a part of their grain and replaced it with mill-feeds, brewer's grains and oil-cake. Brewer's grains were especially popular in the neighborhood of Toronto. The most successful farmers and those who stand at the top or near the top in the final score, were those farmers that are feeding corn silage and alfalfa hay. Some of the competitors could considerably increase the productiveness of their farms by paying more attention to this matter of suitable crops and by working clover into their rotation in such a way that it would be on the land more frequently or having shorter intervals between one clover crop and the next. Several of the competitors were feeding all the grain and fodder produced upon their farms. These were the men that were reaping the best results.

"The question of general farm improvement had not been overlooked, although some of the competitors were far ahead of others in respect to modern conveniences, labor saving contrivances, neatness of buildings and surroundings. Fences, especially, had received much attention. On some of the farms, rail and stump fences had been practically given place completely to modern woven-wire fences. It was really wonderful to note the manner in which many of the farms had been cleaned up for this competition. Piles of stuff in some instances had been gathered up and had been disposed of, which material had for years been an eye-sore to the place.

"Good dairy stock was the main feature of the



High Scoring Barns, Owned by Mr. Isaac Holland, Brownsville, Ont., is the Dairy Farms Competition

Many fine barns were among those on the farms entered in the Dairy Farms Competition that was conducted over Ontario last year by Farm and Dairy. The barn illustrated took a high score, as will be seen from the table on another page of this issue. Read the article on this page which gives the impressions gained by Mr. Hy. Glendinning, the judge of those farms in Western Ontario, from his two inspections of those farms. A number of the leading farms will compete this year to determine the best dairy farms in the province.

leading farms. With the exception of two or three cases, the competitors had been working into dairy stock. Rarely was it but that the stock kept was a distinct credit to the farms, though in a few instances, great improvement could be brought about. Much of the stock was pure bred and many of these individuals were being worked into the Record of Performance.

There were a few competitors who as yet have overlooked the matter of keeping individual records of their dairy cows. This lack in their management was invariably evident in the class of stock kept, those having the best stock having brought it to their present state of excellency through judicious selection based on actual production at the pail. A few competitors, even whose dairy stock is pure bred had overlooked this vital necessity of knowing what each cow was producing.

#### A TREAT IN STORE

"There were many outstanding features of individual farms which are difficult to describe in a general interview like this," concluded Mr. Glendinning. "Farm and Dairy readers may look forward with pleasure to the satisfaction of getting in touch with the modern practices on these competing farms through the essays, three of which each prize winner has yet to submit upon some phase of his farm practice, as called for by the judges and which will be published in Farm and Dairy throughout the coming weeks."

### Secure a Maximum Production\*

C. F. Whitely, Ottawa, Ont.

The consumption of milk and its products is steadily on the increase and the demand for good cows is not falling off, so that with increasing population no "over production" bogey need scare us. Ontario has seven cows for every 100 acres of cleared land; with suitable crop rotation ensuring abundance of succulent feed, there could easily be four times as many cows. A great railway magnate has predicted that the United States will soon have to import wheat! We need seriously to enquire if our methods tend towards an increasing revenue per acre, from better seed, better methods, bigger crops. Our cows must be fed; bread and cheese is still demanded in England and fancy butter here.

A low average return holds back real progress and cheats men out of genuine success. Such good averages as 8,000 lbs. milk from 50 cows, as obtained by a man near Ottawa, should help to instill ambition in other minds. This maxim might well be heralded to every farm. Don't figure on how little profit you can "get along with," but "how much profit" can you make. Get the utmost possible from each cow.

#### TOO MUCH SPARE TIME

The total yield of milk is largely influenced by the training to a lengthy milking period. This naturally begins with the first season of the young stock. Our records show a very large proportion of cows dry in eight and a half or nine months, they could easily work another six weeks. Many that calve in March are just dribbling along in September and go dry in October. Can any business stand that proportion of spare time? Could a store, usually open 10 hours a day, Monday to Saturday, afford to remain closed a day and a half, and not open for customers till one o'clock Tuesday afternoon instead of 8 o'clock, a.m., Monday?

The very fact that pasture may be scarce in August should lead the unobservant dairyman to provide other feed. Shrinkage in milk yield and smaller factory cheques can be largely prevented. Good records around Ingersoll, Ont., were made on a farm where there was no pasture after the middle of July, but where forehandness had the summer silo stocked, where alfalfa, corn and oil cake played an important part.

\* Extract from an address delivered at the Eastern Ontario Dairyman's Association last week.

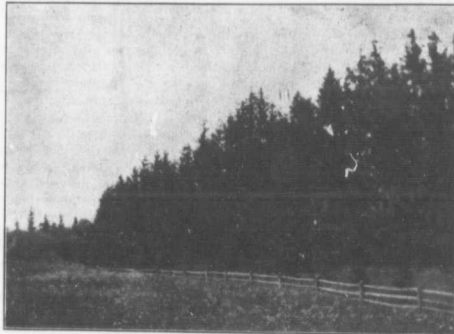
Some Ontario records showed cows giving 1,000 lbs. of milk in September, but only 460 in October; or again 520 lbs. in September and actually dry in October; while in contrast to this some Quebec records noted a positive increase in September milk over August of 63 per cent.

#### THE DUFFERFUL VS. GALLONS

We need to digest the fact that cows all round us are being educated to give 8,000, 10,000, 12,000 lbs. of milk and upwards; we have been contented too long with a dipperful when we should have gallons.

How much profit per day do your cows earn? There are hundreds that do not earn one cent a day; even allowing only \$25 for cost of feed, some have to be fed seven or eight days to pay one cent profit over cost of feed. Roughage and grain cost perhaps five cents, plus five cents for maintenance and the cow just exists, yielding scarcely 5,500 lbs. milk; but if her individuality and dairy characteristics warrant it, she may have an extra eight cents worth of feed and be coaxed up to an annual yield of 300 or 400 lbs. of fat. Some cows, it is proved, have had \$20 worth more grain and have given \$40 worth more milk.

Feed, therefore, to tip the scale of profit well down, don't try just to balance the beam. To keep 15 or 20 cows just alive, but, dead to any ambition of productiveness, is not profitable; bet-



A Shelter Break on a First Prize Farm

A Norway Spruce windbreak as illustrated protects the north and west sides of Mr. E. Terrill's farm buildings and orchard. These trees are 35 years old from the seed. When mature, Norway Spruce for windbreaks should be 24 feet apart. It is well to plant them 12 feet apart and then cut over every other one, when such seems advisable. Mr. Terrill's farm won first prize in district No. 2 in the Dairy Farms Competition.

ter by far only keep 10, each one a hummer. We need cows that are blessings not calamities. Their conversion depends largely on watching records.

### Bright Future for the Draft Horse

T. Baker, Durham Co., Ont.

There is not another branch of farming operation that is, and will continue to be for years to come, more profitable than raising and finishing for sale pure-bred, high class draft horses. My advice to any farmer who is a horseman is buy a good, registered draft mare of the draft type. Then mate her to the best draft stallion available. If the fee is \$20, don't hesitate about paying it. It may mean a colt worth \$50 or more than a foal from a cheap stallion.

It is impossible to accurately prophesy for the future, but the indications are that good draft horses with quality and weight will bring very remunerative prices for years to come. The development of Canada during the last 10 years has attracted the attention of the world. The development during the next decade will be so marvellous as to exceed the predictions of the most optimistic. The rapid growth of our towns

and cities, the gigantic construction of railways, the large increase in mining, road building, freighting, and the settling and development of the enormous clay belt in Northern Ontario, with the almost unlimited area yet untouched in our great West, means that there will be a strong persistent demand at high prices for all draft horses that will be produced for many years to come.

Many transportation companies in the large cities across the line after giving auto trucks a trial, are abandoning them and going back to horses, as they find them more reliable and less expensive. Good draft horses were never selling as high as now and the outlook for breeding is never brighter.

While the writer has nothing to say against any of the draft breeds, he hereafter, Belgian or Clydesdale, it is a great blunder to breed a Clydesdale mare to any but a Clyde stallion. We have kinds enough now without trying to evolve any more types by intermingling the different draft breeds.

### How to Store Ice

Fred Dean, Creamery Instructor, Guelph

Every dairy farmer who is a patron of a creamery should provide a supply of ice, and then make use of it in cooling his cream. It will pay him large interest on money invested, also give him big remuneration for time spent in building the ice house and in putting up the ice.

The majority of ice houses built by patrons have been very simple and cheap. The main point in construction is to have good drainage under the ice. This can be obtained by having three or four inches of cinders scattered around on the site for the ice house; then rails on top of cinders, with five or six inches of sawdust on top of the rails. Eight posts five feet apart each way and placed three feet in the ground will provide the skeleton for a building ten feet square. It can be made as high as necessary, depending upon the number of cows kept and the ice required.

The posts can be fixed so as to support a shanty roof, made of boards, these to overlap about one or two inches. The sides and ends can be built of rough lumber nailed on the inside of posts to keep the sawdust in. The gable ends should be left open and not boarded; this to allow the air to circulate above the sawdust. It is preferable to have the gables on the east and west ends.

The first ice of the season is always the best and there is with it besides the least risk of having to do without ice.

It should be cut as square as possible. Pack it tightly. Fill the chinks with chipped ice. This prevents the air getting in, and makes it much easier to remove. Leave a space at the sides and ends of about one foot next to the boards, this space to be packed with sawdust after the ice is in, or fill as the ice is packed.

Always keep the sawdust well tramped and examine it every few weeks after the ice is in and see to it that none of the ice is left on top. Do not put sawdust between layers of ice, this makes it much harder to get out and the ice is then always dirty.

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Caring for Milk in New York State

"We have all been very much interested in the experiments of Mr. Barr in connection with the preservation of milk, and it seems to me that this question of clean milk is the one which must decide the future of the dairy industry," said Dr. C. A. Publow, of Cornell University, N.Y., in addressing the Dairymen's convention at Belleville last week. "The farmers of Ontario as a rule are doing much toward this end, but in the methods of caring for milk the farmers of New York State are much ahead. In that state one seldom sees an open milk stand located close to a barn yard, hog-pen, wharf or road-side. As much or more attention is given to cleanliness to cooling. In other words, we believe in keeping the dirt out of milk altogether; then we do not have to worry about cold or other methods of preservation, because if the dirt once gets in, no method of cooling will ever restore the purity which has been lost. With this end in view, we find our stables being rapidly cleaned up and whitewashed. The cows and milkers are clean, and not by any means the least is the use of the small top milking pail. Practically every dairyman has his little milk house where milk only is kept, and practically every farmer has a supply of ice or cold water to be used in connection with the Star milk cooler which is now used.

"This is really the strongest feature of dairy work in New York while in Ontario I believe it is the weakest. Apparently New York farmers have been quicker to realize the unequalled value of care and cleanliness in the handling of the raw material in this respect.

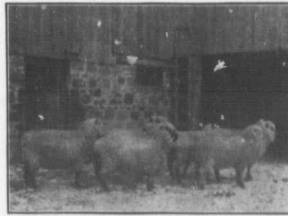
"Why should Ontario with the best factories, the best makers and the best system of dairy instruction in the world, be behind in this great yet simple detail? How long will our Ontario patrons continue to place the cans of fresh milk upon an open stand close to the roadside where the polluted dust may enter in clouds, or in close proximity to the barn yard, stable, hog pen or wharf barrel, all of which give to milk its most odors? Why not have a neat covered milk house with convenient cooling facilities, and why not have a clean whitewashed, well lighted and well ventilated stable, and use a milk pail that will keep out at least three-quarters of the con-

tamination? Does not the business deserve it? You and I are not in this business 'or a day, or a year, but for life, and it will go on after we are gone. Then why shouldn't we get fitted up, to make the best of our greatest industry and the greatest source of maintenance and profit."

Sheep at Our Agricultural Colleges

R. H. Harding, Middlesex Co., Ont.

The matter of keeping only a couple of breeds of sheep at our Agricultural Colleges is not in the best interests of the students nor the sheep



"Weed Eaters" on an Ontario Farm

The illustration shows a part of the flock of Shropes kept by Mr. Geo. Stewart at Dirham County. It is generally recognized that these farmers who keep a few sheep expect less trouble than their neighbours without sheep in keeping weeds in check.

breeding industry of Canada. I do not blame anyone for this condition of affairs.

What is the first impression that the student, inexperienced in sheep, is likely to form when he enters the sheep fold at a college for the first time? Is it not that the breeds represented are the principal breeds? I care not what breed or breeds he may find there it is quite natural that he should expect that they were the best.

It has often been said that it is next to impossible to keep a breeding flock in which are representatives of all the mutton breeds on one farm with any degree of success. With this I heartily agree. But is there no other plan that could be worked out so that the students would have an opportunity of studying the characteristics of each breed, so that they could go into

a contest, such as was held a few weeks ago at Chicago among the Agricultural Colleges, upon at least an even footing with the other College teams? This latter alone, would be of great value to this banner sheep breeding ground of North America. It would also be a great help to our professors who are most capable of teaching, if we put the material in their hands to teach from.

Allow me to formulate a plan, crude though it may be, whereby the object sought could be gained. We have nine distinct mutton breeds in this province. Suppose each college selects five typical lambs of each breed, either ewes or wethers, each year and keeps them until they are yearlings off. This would mean that there would be 90 head in each flock during the part of the year after the first year. Representatives of each breed could be used in the class room for the students' benefit, also for the farmers' short courses in judging and they would be of untold benefit to the many thousand excursionists who visit the Colleges during June.

In order that they might make the best impression on excursionists the breeds should be kept separate during June, as all varieties of sheep in one group have a mottled appearance no matter how good the individuals. Ten acres of good pasture fenced into nine parts temporarily would be sufficient for the occasion.

After the yearlings had been used in the class room they could be marketed as seemed best. If ewes were selected they could be sold in time for mating, if wethers, they could be slaughtered at the Winter Fair for comparison (not for competition) or probably it would be better to slaughter a few of each head and keep the remainder for the short course in January and then send them to an abattoir and have them reported upon. The report from the College as to cost of maintenance should be educative as well. Or, the sheep could be slaughtered for the College dining room and thereby would be cultivated an appetite for good wholesome meat that would be a good thing for Ontario.

I have no objection to losing out to increasing the number of head to be kept as suggested. I would like to have a free and friendly discussion upon the principle laid down, to find out what the farmers, students and professors really think is the best thing to do in this connection.

The Extended Scores of the First Eight Prize Winners in each District in the Dairy Farms Competition

DISTRICT NO. ONE

Table with columns for House 150, Buildings 150, Live Stock 200, Crops 200, Management 150, and Machinery 75. Lists names of winners and their scores across various categories.

DISTRICT NO. TWO

Table with columns for House 150, Buildings 150, Live Stock 200, Crops 200, Management 150, and Machinery 75. Lists names of winners and their scores across various categories.

DISTRICT NO. THREE

Table with columns for House 150, Buildings 150, Live Stock 200, Crops 200, Management 150, and Machinery 75. Lists names of winners and their scores across various categories.

DISTRICT NO. FOUR

Table with columns for House 150, Buildings 150, Live Stock 200, Crops 200, Management 150, and Machinery 75. Lists names of winners and their scores across various categories.

## HOLSTEINS

## MAPLE LEAF STOCK FARM

GORDON H. MANHARD

Manhارد, Ontario  
Breeder of Choice Holstein-Friesian Cattle.  
At present I will sell 20 young cows, due to freshen in the early part of the winter. Also a few young bulls. B-11-310

**FOR SALE, HOLSTEIN BULL CALF**  
Born, Dec. 5. Dam's official record of three years old. 66 lbs. of milk and 2 lbs. of butter. Bull's calf, born March 18th, dam Canadian cow, 35 lbs. of milk and official record at two years 134 lbs. of milk and 20 lbs. of butter. E. F.

DAVID GAUGHAN, Yarmouth Centre, Ont.

## RIVERVIEW HERD

**FOR SALE, 2 Bull Calves**, sired by Sir Apple Boats Regis, son of King Regis, world's greatest 5 year old sire, dam Apple's Lady Pieterie Paul, champion Jr. 4 year old cow 25.6 lbs butter 7 days. Dam of calves a 20 lb. 2 year old, and 23 lb. 4 year old. Price reasonable considering breeding. E-10-10

P. J. BALLEE, Lachine Rapids, Que.

## LAKEVIEW HOLSTEINS

Here headed by Count Hengerveld De Kol, son of Pieterie Hengerveld Count De Kol, who has five daughters averaging over 20 lbs butter in 7 days and whose dam (25.30 lbs in 7 days) and whose wife with a record of over 35 lbs butter in 7 days. Five bull calves, from 9 months old down, from this sire for sale. G. R. E. and Hamilton Road, near Lake Simcoe. Visitors met by appointment. E. F.

E. F. OSLER, Bronte, Ont.

## HOLSTEINS

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

A. D. FOSTER, Bloomfield, Ont.

Hallowell Sta. C.O.R.R.

## LYNDALE HOLSTEINS

Head your Herd with a son of Sara Hengerveld Korolyk who has won 28 prizes for his 2000 lbs. dam's 5 nearest dams average 26.12 lbs butter in 7 days. Only 2 of his sons left. We still have a few cows of Count DeKol Pieterie Paul, and a number of Heifers on sale. E-27-10

BROWN BROS., LYON, Ont.

## HOME-BRED AND IMPORTED HOLSTEINS

We must sell at least 25 cows and heifers at once, to make room for the natural increase of our herd. This is a chance of a lifetime, get a good bargain; we also have a few young milk cows, Friesian, Holstein, Imp. and Hengerveld DeKol, world's greatest sire, head of "herd".  
H. E. GEORGE, CRAMPTON, Ont.  
Putnam Sta., 1½ miles, C.P.R. E-24-10

## HOLSTEIN CATTLE

If you are thinking of buying a choice young cow or heifer in calf, come and see our herd. Will sell anything, come and see our herd. Have a dozen beautiful heifers safe in calf to Sauser Hill, Choice Goods (Imp.), who has five sisters averaging 27½ lbs butter in 7 days and one sister that has a world record as 4 year old with 31.50 lbs butter. Write us what you want, we will guarantee everything just as described. Visit our met at Hamilton by appointment.  
D. C. FLATT & SON, Millgrove, Ont.  
L. D. Telephone 2471, Hamilton

## HOLSTEINS

## WINNERS IN THE RING

Gold Medal Herd at Ottawa Fair

and

## WINNERS AT THE PAIL

See Our A.R.O. Records

Just think what they will want. They combine

CONFORMATION

and

PRODUCTION

Bull and Heifer Calf for Sale from Our Winners

## "LES CHEVAUX FARMS"

Vaudreuil, Que.

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

## AVONDALE HOLSTEINS

Offers for sale high class Holsteins, all age. Herd headed by Prince Hengerveld Pielitz, a son of Pieltz End's Woodroff. Last-out of Princess Hengerveld, a daughter of Hengerveld De Kol with record of 20.34 lbs. butter at 23 months. We also offer some fine young Yorkshire pigs of choice breeding. E.T.F.

ARTHUR C. HARDY, Brockville, Ont.

## AYRSHIRES

## SPRINGBROOK AYRSHIRES

Are large producers of milk, testing high in butter fat. Young stock for sale. Order by catalogue or write for prices. We also offer some fine young Yorkshire pigs of choice breeding. E.T.F.

P. W. F. STEPHEN, Huntingdon, Que.

3-24-10

AYRSHIRES.—Record of Performance work a specialty; young bulls from E. of F. cows, and cows that will go on at next freshening. Milk reports of dams, for everything.

JAMES REGO, Box 88, St. Thomas

## "La Bois de la Roche's" Stock Farm

Here are kept the choicest strains of AYRSHIRES, imported and home bred. Yorkshire, and the best bacon types. WHITE SPRINGTOWN, "LA-BOIS DE LA ROCHE" and BARRÉ ROCK POLY. HOLLAND, J. FORDEY, J. A. BIDEAU, Manager

E-5-5-10

St. Anne de Bellevue, Que.

## SPRINGHILL AYRSHIRES

Imported and home bred stock of a

large fine bred pedigree stock. Leading

test shows this fall. Write for prices.

ROBT. HUNTER &amp; SONS, Naville, Ont. E-7-1-10

Long Distance Phone.

## SUNNYSIDE AYRSHIRES

Imported and home bred, are of the choicest breeding, of good type and have been selected for production. THREE young bulls dropped this fall sired by "Nether Hill Good-time" 26.4-4-4 (Imp.) as well as a few females of various ages for sale. Write or come and see. (Phone in house.) E-4-19-10

DANIEL WATT OR TO HON. W. OWENS, Proprietor,

Riverside Farm, Montebello, Que.

E-9-19-10

## STONEHOUSE STOCK FARM

Is the home of most of the coveted honors at the leading eastern Exhibitions, including first prize old and young herd.

FOR SALE a few Choice Young Cows, also Bull Calves.

E-8-8-10

HECTOR GORDON, Howick, Ont.

## IMPORTED AYRSHIRES

Having just landed with 50 head of choice AYRSHIRES purchased at the great Barchesse sale, I am prepared to fill orders for the best quality selected from the best dairy herds in Scotland; 12 feet for service to choose from. Also show female calves and cows with milk records up to 70 lbs. per day. Write and let me know your wants. Long distance phone. E-8-15-10

R. NESS, Howick, Que.

## RAVENSDALE STOCK FARM

Ayrshires, Gleydesdale and Yorkshires

If in need of good stock, write for prices which are always reasonable. W. F. KAY, Philadelphia, Ont.

E-10-10

## MISCELLANEOUS

TAMWORTH AND BERSHIRE SWINE

Boars and sows for sale J. W. Todd, Corinth, Ont. Maple Leaf Stock Farm.

## WILLOWDALE STOCK FARM

LENOXVILLE, QUE.

Breeds Gleydesdale hogs, Shorthorn and Ayrshire cattle for sale. Chester White swine, all of choice breeding. Young stock for sale. Also several of the standard breeds American poultry and Peking ducks. Settings for sale. E-4-21-10

J. H. M. PARKER

## A Great Improvement in Our Dairy Methods

(Continued from page 9)

manured they could produce double what they do to-day. Farmers sometimes talk about the richness of the soil when the land was first cleared. The fact is, that the farms that have been properly cared for are richer to-day than they were 100 years ago.

## THEY ARE BEATING US

In an exceptionally able address, which was conceded by all who heard it to have been the feature of the convention, Mr. J. H. Grisdale, of the Experimental Farm, Ottawa, while speaking of the feeding of the dairy cow, claimed that it is our own fault that the people of Denmark are beating us in the markets of Great Britain. That they are beating us is shown by the fact that the average production of milk per cow on Denmark is three or four thousand pounds a year greater than it is in Canada. Mr. C. F. Whitley, Superintendent of the Cow Testing Associations, bore out Grisdale's statements.

Mr. Grisdale claimed that the reason we are not doing better is because we are not attempting to do nearly as well as we might. Our cows should be better fed during the dry summer season as well as during the winter. We ought to feed the cows a better balanced ration. In the growing of our crops more seed should be sown to the acre, so that the effort would be required on our part to enable us to revolutionize our dairy methods. We have a great advantage over the Danes, owing to the fact that we are able to grow corn, whereas they are not. A report of Mr. Grisdale's as well as of Mr. Whitley's addresses on cow testing will be published in full.

## A WARNING

President J. R. Dargavel, who is a member of the Board of the Ontario appointed last year by the Ontario Government, and who has been looking into conditions affecting the production of milk in both the United States and Canada, in his report of warning: "I can assure you," said Mr. Dargavel, "that we are a long way behind where we should be in the production of milk. We must have a higher ideal and work towards it, or we might as well go out of the business. I do not wish to forecast what the report of the Milk Commission will be, but I would be wanting in my duty as your president if I did not warn you now that better things will be expected from everybody engaged in this business than have been in the past."

## AHEAD IN NEW YORK STATE

Dr. C. A. Publow, of Cornell University, New York, who is the son of Chief Instructor G. G. Publow, of Kingston, New York, while in the number of respects we are behind the dairymen of New York State, they are far ahead of us in the care they take of their milk. The great majority of the dairymen in New York, as a regular supply and cool their milk. They milk into small topped pails, and thus help to keep out the dirt. Their milk reaches the factory and cities in better condition than does the milk produced on our average Ontario farm.

## OTHER ADDRESSES

Most of the addresses to which reference has been made are published in full or in part in the issues of the following issues of Farm and Dairy. These include the addresses of Messrs. Whitley, Dr. Publow and Mr. Grisdale. The excellent addresses of Messrs. George H. Barr, Chief of the Dairy Division, on "Further Experiments in the Care of Milk for Cheese-making"; of Instructor Frank Singleton, on "Creamery Work in Eastern Ontario, with reference to improvement"; of Dairy Commissioner J. A. Ruddick on "Is the Cheese Industry in Canada in Danger?" and of Dr. W. T. Conell, of the Kingston Dairy School, are either published

elsewhere in this issue, or will be in following issues.

## TREASURER'S REPORT

The treasurer's report was as follows:

Receipts	.....	\$ 227 10
Balance from 1908	.....	100 00
Grant from town of Prescott	.....	100 00
Grant from Leeds and Grenville	.....	200 00
Ontario Government grant	.....	1666 00
Membership fees	.....	161 00
Advs. in official program	.....	175 00
Received in fines for milk adulteration	.....	1207 34
The total received	.....	3751 19

The total expenditures were \$3817.

The chief expenditures were for prosecutions for milk adulteration, holding and advertising district dairy meetings and directors' expenses.

## CONVENTION NOTES

The addresses delivered at the convention were unusually instructive and interesting. Unfortunately they were not admitted of their being discussed. A whole session might easily have been spent in the discussion of any one such address as those given by Messrs. Grisdale, Barr, Whitley or Singleton.

A feature of the convention was the presentation by Mr. G. E. Henderson, of the Canadian Salt Company, Windsor, and advertising district dairy to Messrs. James R. Anderson of Mountain View, and Alex. Hume of Mountain View, of the prizes they won in the Dairy Farm competition conducted by the Farm and Dairy. Great praise was given the Farm and Dairy for inaugurating such a competition as well as upon its success.

The retiring president, Mr. J. R. Dargavel, Elgin, who has been connected with the association for 17 years, was presented by the officers with a gold headed cane, clock and writing service.

## Dairy Herd Competition

The winners in the dairy herd competition conducted last summer throughout Eastern Ontario, were announced at the recent convention of the association in Belleville. They are as follows:

District No. 1:  
1.—J. Gordon Mann, of Bridgeport, 8 cows averaged 5,961½ lbs. per cow, for 6 months.  
2.—William Whitten, Menie, 11 cows, average 5,140 4/11 lbs.  
3.—Thomas McCoy, of Cooper, 12 cows, average 5,600 1/3 lbs.  
4.—William Smith, Lakeport, 8 cows, average 4,495 1/2 lbs. District No. 2:

One entry, J. W. Duffett, of Adolphus, 10 cows, average 6,168 lbs. This is the highest average on any level.

District No. 3: Two entries.

1.—Andrew Henderson, 30 cows, average 4,875 lbs.

2.—A. M. Ferguson, 21 cows, average 4,825 lbs.

District No. 4: One entry.

Henry Davidson, Prescott, 14 cows, average 4,074 1/4 lbs.

District No. 5: One entry.

D. H. McDermid, Avonmore, 9 cows, average 4,800 lbs.

Dr James W. Robertson has resigned from the principalship of the Macdonald College, St. Anne de Bellevue, to take up his work on the Commission for the Conservation of the Canadian Sea Coast. He sails on January 27th from Halifax for England on the steamship Corsican. He will visit Great Britain, France, Switzerland, Denmark and other European countries. The doctor will when abroad take advantage of his opportunity of giving public gatherings information regarding the vast extent, resources and rapid advancement of the dairy industry in Europe. He will come back to Canada for a few months of the summer and after a period in Newfoundland, will go to Australia, South Africa and India.

**The Feeders' Corner**

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

**Horse Feeding Problems in Saskatchewan**

We have a good deal of trouble in this part of the country to keep our horses in good condition during winter because we have no work for them and although we let them out every day they are not allowed to stock as they are scarce we use oat straw and oats and it seems very difficult to fatten horses so that without their stocking up. It is all gone work the amount of straw we feed, as people have no proper way of weighing the straw here, so we give them all they want twice a day and let them out in the middle of the day. We feed two gallons of oats to each horse. The oats weigh 40 lbs. to the bushel, the horses weigh about 1,400 lbs. I may say our oats are worth 25 cents a bushel, bran 61 cents a bushel, so we do not buy any hay. Some people advise feeding more oats and a little saltpeper but I do not know how to do it. I do not water and plenty of rock salt in the mangers. The horses do not care very much for straw so I do not think it is too much of it.—C.C.V.R., Bradwell, Sask.

It is evident that your horses require some food other than what you are giving them. The best thing I can suggest of oats and purchasing with the proceeds some bran and flax seed meal or oil cake meal, whichever may happen to be available. The bran takes 600 lbs. of oats, 20 lbs. of bran and 100 lbs. flax seed meal or oil cake and mix together thoroughly. Feed at the rate at which you have been doing in the past. As a little exerciser if the horses will stand it. If the horses show any signs of stocking it would be well to let them have a little more exercise, in fact to compel them to move around quite briskly for a few minutes each day.

The straw is not doing them any harm, but is rather hard on them for the reason that it is not very nutritious and the horse is not provided with a very large stomach to enable it to digest readily such coarse forage. I would suggest that another year if you do not find it possible to grow hay or secure any in your district you cut a certain part of your oat field when the oats are still very dry, say just as the oat is in the milk stage, leave in shock all dry and preserve as hay. The horses will eat this very much better than they will the dry oat straw, and it will take the place of hay.

As to the advisability of feeding the saltpetre you should not do it very frequently. The dose for a horse is about two tablespoonfuls of finely powdered material. Do not heap the spoonfuls, but fill a little more than levelful.

An occasional dose of raw lised oil, say a pint about once a week would do your horses good and help keep them right, and it makes them do better on the feed you are giving them.—J. H. Grisdale, Agriculturist, C.E.F., Ottawa.

**Feeds for Beef Cattle**

Could you tell me the proportions in which to mix the following for the best cattle? I have straw, good wheat and oat—only of corn in the stock, mangels and turnips, and chopped wheat, oat and barley. I thought I would cut the straw and corn in the proportion of one bushel of straw, one bushel of corn and two bushels pulped turnips, giving each one bushel of the mixture to the cow three times a day with meal on top. Would that be right? If not, give me the proportions in which to mix feed to get the best result.—H.E.T. Co.

The mixture of roughage proposed that is four of straw, one of cut corn and two of pulped turnips might prove satisfactory depending on how the straw was measured. It is very easy to make a bushel of cut straw weigh three or four times as much at one time as at another by the simple process of packing.

It would suggest the following as a good proportion in which to mix your

roughage materials. Cut oat straw 10 lbs. cut stock corn, 10 lbs., pulped roots 50 lbs. O this mixture about 60 lbs. a day would be sufficient for a mature cow. To this it would of course be necessary to add what meal it was found needful to keep the cow or other animal in good shape. In the case of a mature cow it would probably require about 2 1/2 lbs. per diem, with heifers somewhat less.

The meal had better be fed sprinkled on the roughage. If the feed is prepared a day or two ahead and does not become moderately damp before feeding it would be well to sprinkle a few gallons of water over the straw, etc., when mixing.

Grind the grain finely. Feed twice a day rather than three times. Just as good results may be anticipated at less labor necessary.—J. H. Grisdale.

**Ration for Cows in B. C.**

Will you advise us how to feed for profit from the following available foods: Timothy hay, \$20 a ton; second crop (poor), at \$20; white clover and best, \$10 a ton; bran, \$30; oat and barley chop, \$25 a ton; shorts, \$25 a ton; middlings, at 20 c; waste cabbage free, and some pasture until snow comes. Cows are stabled at night all time but

**Another Evidence**

of what Farm and Dairy can do for the advertiser. Read below. We can do the same for you: Messrs. Farm and Dairy:

Dear Sir,— For the past two years we have occasionally used your paper for advertising our Feed and Litter Carriers, Cow Stalls, and Hay Tools, and particularly for the past year we have been impressed with its value as an advertising medium. We have been pleased to notice lately that every advertisement is bringing its results. You can understand, therefore, that we wish to continue advertising with you.

We might also say that we have appreciated the courteous treatment we have received from you. We are, yours, very truly,

THE Louden Machinery Co.  
Per H. Ralph Steele,  
Sales Manager.

fed in the morning a little poor hay, and let out to pasture and help themselves to cabbages, turnip tops and water. At night a little good hay, one gill bran and two quart chop each daily.—C. E. W., Kelowna, B. C.

For cows producing milk as you indicate yours are doing, I would suggest the following as a suitable ration:

- Timothy hay ..... 10 lbs
- Carrots or beets..... 10 to 20 lbs.
- Bran ..... 3 lbs.
- Oat and barley chop ..... 2 lbs.

The cows might be allowed to eat what cabbage leaves they wished in addition to the above. I would suggest as a better meal ration if you could get the materials, four to five pounds a day of a mixture of bran 200 lbs.; oat and barley chop 100 lbs.; oil cake meal 200 lbs. You will find it most profitable to feed about one pound of meal to about four pounds of milk produced per diem, if your hay is of very inferior quality it might be advisable to feed some what freely of the meal ration.—J. H. Grisdale.

Further efforts are to be put forth to secure more favorable legislation for the protection of sheep from dogs. The question of marketing wool may also be taken up by the Association in the near future.



**Walls and Ceiling For the Kitchen**

It is impossible to keep the ordinary kitchen walls clean—smoke discolors them—dirt and grease sticks and stains so readily—very unsanitary, a regular breeding place for vermin. Why not have a bright, clean kitchen—cover the walls and ceiling with

**METALLIC**

It is both sanitary and artistic. Metallic is the ideal ceiling and wall covering for the kitchen—does not fall in the food—no vermin, keeps out the rats and mice, and is always fresh and clean. Our free booklet "Interior Decorations in Metal" tells you all about ceiling and walls, write for it now. Phone Parkdale 500.



Agents Wanted in Some Sections. Write for Particulars

**An Eye-Opener for Dairymen.**

Comparisons of the quarter best and the quarter poorest out of 524 cows and 80 heads in 22 Ontario associations were given by Mr. Whitley who had charge of the Cow Testing Associations for the Province, at the Eastern Ontario Dairymen's Convention held at Belleville last week. The table gives these comparisons, and the comments on these by Mr. Whitley follow.

Average yield, 5,870 lb. milk, 3.5 test, 206.4 lb. fat.	131 BEST COWS
Average yield .....	18 POOREST COWS
Average yield .....	7,803 lb. milk
Average yield .....	282.6 lb. fat
Gross Receipts (fat 24 cents) \$67.68	
Cost of feed .....	34.00
Profit per cow .....	33.68

Total profit .....	\$4,412.00
25 cows made as much profit as 1,950 poor cows. It took 456 cows to make the profit of \$12.9 a day.	
Average yield .....	4,197 lb. milk
Average yield .....	145 lb. fat
Cost of feed .....	34.00

Profit per cow .....	.80
Total profit .....	\$104.80

This chart presents some facts in a somewhat new light. Taking 524 cows and leaving out half of them, those that come nearest to the average, the remaining half is divided again so as to compare the quarter best and the quarter poorest. It will be noticed that in the fairly satisfactory average yield of 5,870 lbs. milk the poorest cows are included but they give only 4,197 lbs. or in other words they are credited with 1,673 lbs. more than they actually gave.

This again shows where averages are likely to be quite deceptive. Taking simply the value of product and the cost of feed it is seen that the poor cows are only 50 cents net profit on their year's work, while the best cows gave over \$33.00 net profit.

Calculating it another way, a herd of 25 selected cows made as much profit as 1,950 of the kind that are allowed to present themselves to the unsuspecting owner. This is the kind we cannot afford to keep—no one can, one would have the colossal task of handling 456 of such calibre to make the astounding profit of only one dollar a day. This must surely open men's eyes to the absurdity of permitting such harpies to prey upon them.

Young grass is much richer in albumin and contains a smaller proportion of indigestible fibre than older grass, and is, consequently, more nourishing.—Prof. R. Harcourt, Ontario Agricultural College, Guelph, Ont.

**Goes Like Sixty**

Sells like Sixty  
Sells for Sixty-five  
A perfect engine for pumping, drilling, sawing wood, coring, shelling, churning, washing, mashing and all farming purposes. Larger sizes for feed cutting, tire, also filling and all heavy farm work.

**GILSON GAS AND ENGINE**

FREE TRIAL—WRITE FOR CATALOG—ALL BEERS  
Gibson Mfg. Co., Ltd.  
2 York St., Windsor, Ont., Canada

**WINDMILLS**

Towers, Girtd every five feet apart and double braced

Grain Grinders  
Pumps  
Tanks  
Gas and Gasoline Engines  
Concrete Mixers

Write for Catalogue  
**GOULD, SHAPLEY & MUIR CO., LIMITED**  
BRANTFORD, CANADA

**PIGS. PIGS. PIGS.**

Pigs Given Away

Any standard breed you like.  
For a few hours' work

Send us 7 New Yearly Subscriptions for Farm and Dairy at \$1 each.

Write Circulation Department  
**FARM AND DAIRY**  
PETERBORO - ONT.

## HORTICULTURE

### [Pruning Peaches and Apples

J. O. Duke, Essex Co., Ont.

In my opinion fruit growers will have to change their ideas of pruning in order to meet the changed conditions. The old way of pruning about the centre of the trees to let the sunlight in has resulted in many orchards, apple especially, becoming too tall for the care that a tree now has to receive.

My methods are very different from those usually advocated and I am reasonably successful in getting good crops of good fruit and have healthy trees. Instead of heading back young peach trees, as is always recommended by horticulturists, I let them grow just pruning enough to keep the young tree well balanced and to correct excessive growth in one direction but after the tree gets six or eight years old I begin to head back.

When peach trees have attained a size that necessitates a ladder in picking the fruit, I begin to prune and keep the fruit producing wood close to the ground. Keep the trees low so that they can be readily sprayed without any great difficulty to get at the topmost branches. I find my trees are hardy and I have a good sample of fruit from trees handled thus.

I am applying this same principle to apple trees, thinning out from the top and leaving those limbs in the centre of the tree that are usually removed. I find that my trees are bearing a good crop throughout the tree and not on the outside which is usually the case with apples.

The fruit that is grown in the interior of the tree is not so liable to blow off as if it were allowed to grow on long branches and the fruit is more easily sprayed and the trees more easily picked.

### Winter-Killing of Swollen Buds

W. T. Macoun, Central Experimental Farm, Ottawa

During the latter part of winter when the sun begins to get strong and when some days are quite warm there is often a premature swelling of buds, especially of the cherry, plum and peach. This warm spell may be followed by cold weather and there may be several such changes before spring. The buds being swollen and more or less active are more subject to injury from frost and changes than the dormant buds and the result is that they are killed. Great injury is often caused in the peach districts by the killing of swollen buds, and in the province of Quebec injury to the plum and cherry is no doubt done when they are in this condition.

It was thought that if the ground could be kept frozen about the trees it would prevent the buds from swelling as the roots would thus be kept in an inactive condition, but it has been proved over and over again that ice has no effect whatever in delaying the swelling of the buds. The expanding of the willow buds in our swamps before ice is gone is a good example of how buds will develop while the roots may yet be in a frozen condition. There is sufficient sap in the tree to supply the buds and even the leaves when they first expand and when the temperature about the top of the tree is high enough, growth begins.

Swelling of buds can be prevented by bending over the trees as suggested (in a previous issue) to prevent the falling of dormant buds, but this could not very well be done on a large scale.

A few years ago experiments were conducted at the Missouri Station to determine if whitewashing the trees

would retard the buds, the principle being used that white surfaces do not absorb heat as readily as darker ones. It was found that the whitewashing did retard the buds and in the case of peaches would sometimes prevent injury from frost. An experiment was tried at Ottawa in whitewashing plums and cherries, and it was found that it retards the buds and in the case of peaches. This means of prevention is not, however, a very practicable one as it is difficult to get the whitewash over the branches well for a long period. After further investigation at the Missouri Station it was found that the buds of varieties of peaches having the lightest colored twigs received the highest temperatures to cause them to swell than those with darker colored twigs, and the former suffered less from killing than the latter. Not having in these lighter-twigged varieties the kinds of peaches required for commercial purposes the Missouri Station is now at work breeding good varieties with light colored twigs.

### A New Disease of the Apple

Benjamin W. Douglass, the entomologist of Indiana, makes the following excellent suggestions on spraying:

"If the farmers in every community will band together to buy a power sprayer it will mean better fruit and more money. There are a great many new diseases to cause apprehension but as often as new disease appears a way to combat it can be found, so that on the whole there is nothing to be discovered by every farmer. I think, knows that if a good crop of fruit is to be expected, he must give his tree some attention.

Early in the summer one of my inspectors sent specimens of apples which were disfigured by a curious and uncommon disease. The first specimens sent in resembled to a certain extent early stages of the apple scab, but a microscope examination and further study revealed that we had a new disease of the apple—new, at least, to Indiana horticulturists.

"The first makes its appearance on the fruit in the shape of small, light brown blotches which consist of lines running from a common centre in a radiant fashion, like the spokes of a wheel. The entire spot has the effect of having been splattered or splashed upon the apple. The size varies. As a rule the blotch seems larger on red varieties than on the yellow ones, though frequently a spot will increase in size if the apple is kept in storage. As the disease progresses the blotch will become sunken and will eventually crack, exposing the flesh of the fruit to a considerable extent.

"The disease is a fungous disease and like most of that type is best combated by spraying with the Bordeaux mixture. Four sprays are recommended, the first one three or four weeks after the petals have fallen, the second two weeks later, and the third and fourth at intervals of three weeks. Success will of course depend upon the thoroughness with which it is done."

### Spraying Trees and Cost of Outfits

Many enquiries in regard to the lime-sulphur wash, the kind of spraying apparatus to use and cost of the same have been sent to the Pennsylvania Department of Agriculture. The following reply by Professor E. A. Surface, state zoologist, will be of interest to every person owning fruit trees, whether few or many—

"You can evaporate your own lime-sulphur solution and destroy the scale by its use, making this material by boiling together the lime and sulphur or you can buy it ready made from the chemist. The former is ready to dilute with eight times its bulk of water, and spray on the trees and

kill the scale. It is cheaper to make it, but where you have only a few trees, it is more troublesome. Either form will kill the scale if applied strong enough and neither will hurt the trees if applied as strong as whatever. The home-boiled lime-sulphur is made by boiling four pounds of sulphur (either flowers or flour) with five and one-half pounds of quick lime, and water enough to boil them, and afterward add enough water to make the total bulk not more than twelve gallons. Strain this well. The straining is very important. Clog-

### Pin His Faith To It

I am much interested in Farm and Dairy. It is great. I pin my faith to it and follow it in every way that I can.—C. E. Bent, Cumberland Co., N.S.

ging of nozzles and sloppy work is generally due to lack of proper straining. The best way to strain is to use brass wire cloth thirty meshes to the inch, setting it at an angle across the funnel, or built as a cone with the point standing upright in the strainer funnel.

"Spray the lime-sulphur wash (either home-made or commercial) directly over the trees at any time after the leaves are off, giving them two good coats, one from each side. Take advantage of an opposite wind to spray the opposite side of the tree. Repeat this in the spring when the buds are swelling.

"You can buy most seedsmen inexpensive spraying apparatus. For such trees as you have at present a complete outfit, costing not more than five dollars, would serve the purpose. Nearly all manufacturers of spraying material make these small

and cheaper sprayers, which are generally in the form of hand sprayers, bucket sprayers, compressed air tanks or knapsack sprayers. The highest price that they should cost should not be more than ten dollars, and from some manufacturers a cheap outfit can be bought for one-third this amount. Every person growing even a few trees and shrubs should have his own spraying apparatus of the size and power adapted to his needs.

"You can not expect to keep your trees free from scale by preventive means, but you can try to destroy them when they are infested, and thus keep the scale under control. There is really no need of spraying for scale at a time when it is not present. A quantity of the lime-sulphur solution to be prepared, as given above, is for the owner of a few trees. In regular orchard work, it is preferable to make less than a 50-gallon quantity at one time, when the proportions of materials used are 17 lbs. of sulphur and 22 lbs. of lime, boiled as stated above. One hour of thorough boiling is necessary."

I have been a planter of trees since 1864 when I planted an orchard on my father's farm. The following year I planted forest trees for a wind-break and I have planted trees of some kind every year since. These are a benefit and a blessing to others as well as to myself.—W. J. Stevenson, Ontario Co., Ont.

One of the heaviest shipments of vegetables that were ever sent from Newcastle, Ont., was last fall forwarded to Toronto, when 30,000 cabbages raised by Mr. Harry Douglas on three acres of land was forwarded to a Toronto firm. The crop realised some \$600.

## Potash Means Profit

Every Farmer, Market Gardener and Fruit Grower, who has not already done so, should test the truth of this statement by using Potash this year. No better resolution can be made for the New Year.

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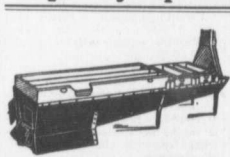
If there is no dealer in your locality who handles Fertilizers, write us and we shall advise you where you can get supplies. For the benefit of dealers and others requiring Potash in Car Load Lots, we would mention that our Head Office has established a Sales Agency at Baltimore which will sell such quantities at Considerably Reduced Prices.

Write us for particulars and Free Copies of our Bulletins including:—"Fertilizers: their Nature and Use," "Fertilizing Orchard and Garden," "The Potato Crop in Canada," "The Farmer's Companion," etc., etc.

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**POULTRY YARD**

**What Grains to Feed**

What grain can I feed to my hens with profit this year? I can get oats and buckwheat, but no wheat. There is a car of corn coming in at \$1.40 per 100 lbs. Can I do better than that? Can corn and wheat be obtained? How much more would you pay for the whole grain than for the screenings?

Corn at \$1.40 is reasonable, providing it is good corn, and I think for the winter this should make a good proportion of your feed. We are buying buckwheat at \$1.25 a cwt., which at that price is cheap, and we are feeding considerable of it. Our feed wheat costs \$1.75 in Montreal, and I have on that account not fed as much of it as usual. I do not know where you can get corn and wheat screenings. I have never been able to buy any of it with satisfaction.—F.C.E.

**Feeding Value of Sunflower Seeds**

Tell me what is the feeding value of sunflower seed, and how best to feed same, whole or ground, and amount to feed.—J. H. Halton Co., Ont.

Sunflower seed is a very valuable food for poultry, especially at moulting time. Corn has 10.4 parts protein in 100; sunflower has 13 parts and wheat, 11.9; buckwheat, 10. The sunflowers are also very rich in carbohydrates and fat, and if you have much of the sunflower seed it would be well to mix it with the other grains. If you are feeding a mixed dry mash in a hopper you might put in about 10 per cent of ground sunflower, or it can be fed whole with the other grains in the litter. Hens are very fond of it, either way. If you mix it with your grain ration you might put in one-quarter to one-sixth of it.—F.C.E.

**Dressed Poultry at Ottawa**

Among the special prizes for poultry at the Live Stock and Poultry Show to be held at Ottawa, January 17th to 21st, is \$10.00 for best case of 12 fatted cockers as per select grade, P.P.A., donated by Poultry Producers' Association of Eastern Canada; \$10 for best collection of dressed poultry donated by Poultry Yards of Canada, Limited., Pembroke. Goods value \$5 for second best collection of dressed poultry.

For the benefit of those wishing to compete for the Poultry Producers' special, the following information is given: The select grade to consist of specially fattened chickens, extra well finished, and of superior finish and appearance, unbroken skin, without blemish, straight breast bone, and neatly packed in packages that hold one dozen birds; the package shall be made after the plan recommended by the Department of Agriculture and illustrated in bulletin No. 7. One package shall include only birds of uniform size and color of flesh and legs.

The package referred to is a case made of  $\frac{1}{2}$  inch to  $\frac{3}{4}$  inch basswood or spruce. For chicks weighing from  $\frac{3}{4}$  to 4 pounds each the boxes should be inside measurement 28 $\frac{1}{2}$  inches x 16 $\frac{1}{2}$  inches x 4 $\frac{1}{2}$ . For chicks weighing from 4 to 4 $\frac{1}{2}$  pounds it will be necessary to have the boxes 24 $\frac{1}{2}$  x 17 $\frac{1}{2}$  x 4 $\frac{1}{2}$  and larger birds weighing from 4 $\frac{1}{2}$  pounds to 5 $\frac{1}{2}$  or 6 pounds the boxes should be 26 $\frac{1}{2}$  x 18 x 5 $\frac{1}{2}$  inches.

The chicks shall be killed by dislocation of the tibiae in the mouth, dry plucked and cooled. If preferred a shaping board may be used. They should be tightly packed in this case. Only a few feathers should be left at the neck. Take all the feathers off the hocks and the wings. Line the box with parchment paper and in packing the birds put them either breast or backs up which is preferred. If the backs are well covered with flesh they will present a better appearance this way than with feet up.

**Poultry at the Amherst Fair**

As usual, the poultry department at the Maritime Winter Fair drew the crowd, and well it might. There were about 1,000 birds cooped; the quality was good, and in some classes the competition was decidedly keen. In the open classes, judged by A. C. Smith, Waltham, Mass., the Barred Rocks and White Wyandottes were best represented. The utility classes and double breeds were also well worked of placing the awards, contained some good birds. The White Wyandottes took the lead, the Barred Rocks and B. Orpingtons also making strong classes. The utility classes were shown in pairs and pens. The cockerel and the pullets were shown separately. The showing in pairs, however, is not fair for either the judge or the exhibitor. As an illustration of how it acts, the best cockerel in the Barred Rock class was not placed at all, as his mate was a very inferior specimen. This was also the case in the White Wyandottes. The turkeys were a good showing, the geese and ducks fair.

The dressed poultry was not so large an exhibit as was being shown, but the quality was up to the mark. The entire exhibit was bought by Mr. Henry Gatehouse of Montreal. In the dressed exhibit a very interesting feature was the judging contest. The women of Amherst and vicinity, who are members of the Hospital Aid, provide meals for the fair visitors and do noble work at the fair. By their efforts they raise about \$1,000 each year for the hospital. Every year there has been given a handsome silver service to the woman who can place most correctly three chickens, three turkeys, three ducks, and three geese. Each contestant must give reasons for the placing of the chickens, etc. This year three prizes were also given to women who were not members of the society. Some of the judging was very close, and showed that the women of Amherst were becoming interested in judging dressed poultry. The first place in the members' contest was awarded to Mrs. Alice Christie, of Amherst. In the non-member class the three prizes were won by—1st, Miss Arkinton, an automobile coat; 2nd, Mrs. Wheatley, a suit case; 3rd, Mrs. Arkinton, set of dishes.—F. C. Elford, Macdonald College, Que.

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AND RURAL HOME

Published by The Rural Publishing Company, Limited.

FARM AND DAIRY is published every Thursday. It is the official organ of the British Columbia, Manitoba, Eastern and Western Ontario, and Red River District, Quebec, Dairyman's Associations, and of the Canadian Hotel, Ayrshire, and Jersey Cattle Breeders' Associations.

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## FARM AND DAIRY

PETERBORO, ONT.

### DEMAND JUSTICE FOR RICH CREAM

It has been shown that the practice of using the pipette, for making the Babcock test as followed largely in creameries, is wrong. Dairy authorities and creamery instructors have for years preached for a richer cream. Yet it is generally conceded that the patron who sends rich cream is the loser, that his cream does not get justice, save where the scales—not the pipette—are used in measuring the samples for the Babcock test.

Creamery men have been aware for years of the error made in the test where the pipette is used. Some of them have resented efforts to inform patrons on this question. The truth has come out, however, and now many patrons realize that their rich cream does not get justice with the pipette and as a result they have not sought to produce rich cream, rather the reverse.

The question has reached that point where it is a matter of which the Government should take notice. Several of the States in the American union have passed laws seeking to enforce the accurate determination of

the amount of fat in cream. These appear to have worked out to the benefit of the business.

We know that the weighing of samples of cream gives more accurate results than using the pipette. This fact alone is sufficient reason why the weighing method should be used.

Patrons would do well to demand that the scales be used, rather than the pipette, when their cream is tested. Since the experience of those men who have used the scales is that where a proper balance is used, it is not really any more difficult to weigh the samples than to measure them with the pipette, and a rich cream, when properly tested, is directly in the interests of all concerned in the creamery business, as such rich cream should be encouraged. The creamery adopting the scales, however, is bound to suffer in competition with the creamery using the pipette, hence the need of considering the adoption of legislation on this point that would require all to adopt the use of the scales in making the Babcock test. We can easily have too much legislation. There are certain matters however, as the history of our dairy industry proves, concerning which wise legislation affords the only means of improvement.

### SAVE ALL WOOD ASHES

The ash dealer who makes his rounds through the country bartering soap for ashes should not be encouraged. Ashes that are valuable to him, would be worth much more on the farm where they were produced. Unleached wood ashes contain a large percentage of potash. This potash furthermore is in a soluble form and, therefore, quite available to plant roots. Wood ashes contain anywhere from five to ten per cent. of potash; perhaps an average of ten per cent. Many farmers do not recognize the value of this fertilizer, else they would never allow it to be wasted, as is often the case, or to be sold from the farm.

Experiments conducted by the Ontario Agricultural College have shown that an application of potash to the soil has given marked beneficial results. Various authorities on agricultural chemistry recommend wood ashes as one of the chief correctives for soil acidity. Several experiments at the Ontario Agricultural College have shown wood ashes to almost double the crop on swamp lands.

Besides the potash contained, good wood ashes will also contain from one to two per cent. of phosphoric acid, which is also of great value, particularly as this constituent influences the maturity of the plant and the production of seed or grain. Lime is also a constituent of wood ashes, the percentage of which will vary, but, perhaps, on an average, wood ashes will contain somewhere about ten per cent. The market price for potash and phosphoric acid is about five cents a pound. From these figures, anyone may estimate fairly closely the value per bushel of wood ashes. It is readily apparent that it is highly desirable that wood ashes should be retained on the farm.

Our soils cannot afford to lose the enormous quantities of valuable wood ashes that are annually gathered and exported from this country. While much is exported, probably as great a quantity is wasted. We should recognize the cash value of wood ashes to the farm, and take all precautions to preserve and apply them where they will produce the best results.

### THE CHEESE MAKERS' WAGES

Dairy Commissioner Ruddick sounded a timely note of warning in his address at the Eastern Ontario Dairy-men's Convention in Belleville last week, when he drew attention to the fact that a large proportion of the cheese and buttermakers, after a few years' work, drift into some other occupation that offers greater attractions. It is a distinct loss to the dairy industry that a large number of experienced men should leave the business each year. It is in the best interests of the business as Farm and Dairy has repeatedly pointed out to retain these men.

There is no gaining say the fact that cheesemakers have received a remuneration short of what their capabilities and responsibilities would receive in some other business making equal demands upon them. As Mr. Ruddick says, there is no good reason why a business that has been so prosperous and has done so much for the country should not offer sufficient inducement to a larger number of men so that they will make it a life's work.

### INSTRUCTION IS APPRECIATED

The marked success of the annual cheese factory meetings throughout the counties of Peterboro and Victoria which were addressed by Mr. Geo. H. Barr, who gave his illustrated talk on "The Care of Milk for Cheese Making," emphasizes the fact that the annual meeting is the place where instruction can best be given to patrons. A decided improvement was noted in the milk supply from those districts this past year where Mr. Barr gave this lecture the year before. Our dairy industry will greatly profit through the continuance and the extension of this means of imparting information to the men who produce the milk. Factory proprietors, cheese makers and those who are directly interested in the condition of the milk as supplied at their factories should put forth efforts seeking to have appropriate instruction given at their next annual meeting.

The dairy instructors may well use their influence towards having expert lecturers for their annual factory meetings, as Mr. D. J. Cameron, the instructor for the Lindsay group, did last year towards having Mr. Barr at the annual meetings of factories in that district. That this form of instruction is popular is well shown from the fact that in spite of unfavorable weather at the time the meetings were held in the Lindsay district, the attendance at any one meeting was not less than 40 and reached upwards of 75. It is safe to predict that the influence of the information

imparted to the patrons at these meetings will be evident next year in the improved quality of the output from these factories.

### The Value of an Idea

(The Globe)

A forty-acre orchard, with 1,200 winter apple trees in it, has just been sold in the township of Woodhouse, county of Norfolk, for \$17,000. Eighteen years ago it changed hands for \$2,750, ten years ago for \$4,500, and six years ago for \$10,000. The purchaser who bought it at \$17,000 was Mr. James E. Johnson, Manager of the Norfolk Fruit-growers' Association, and he credits himself with having got a bargain. The increased value is in a large measure owing to the operations of the Association of which Mr. Johnson is the Manager.

The members of the Association recently received their checks for the season's crop, and reports of returns run in some cases as high as \$300 an acre. One case is mentioned of a grower in Charlotteville who has thirty-five trees. Until the establishment of the Association the trees were regarded as practically valueless, but this year he has a check for \$360 for the product of thirty-five trees which had hitherto been regarded as merely ornamental.

And this has all arisen from an idea, the only thing that counts in this world. Some man had the idea that the apple-growing business in Norfolk county could be made much more remunerative if it were better organized and conducted on more scientific lines. As a result of that man's thought the apple-bearing lands of a whole county became greatly appreciated in value, and the bank accounts of many persons grow in consequence. Nor should we lose sight of the greater satisfaction which the intelligent prosecution of one's calling brings to whoever undertakes to learn and apply.

### Agricultural Pessimists

(Kemptonville Advocate)

The pessimist is a pest wherever you find him. He never did nor never will do any industry or business any good. He is a clog on the wheels of progress, pulling back when "go ahead" is the only thing to do. There are the pessimists in Canada; men who profess to be leaders in the field. Everything they say or write is saturated with a pestiferous pessimism that knocks the bottom out of the thing they intend to help. Above all other callings Canadian agriculture has no room for the pessimist. Grievances the farmer has, to be sure, many of them. They never will or can be righted by the pessimist. Nothing can be accomplished by belittling the cause one represents. It is the fellow who justifies his calling and shows its importance to the community who gains the ear of the governments when there are grievances to be remedied. Let us get rid of the pessimist in Canadian agriculture. There is an effective way of doing it. Sit on him good and hard when he begins to exploit his pessimistic ideas before the public. Give him to understand

that neither he nor his vicious teaching is wanted. He will soon find his level, which is at the foot of the procession that is making for progress and prosperity.

**Creamery Department**

Butter makers are invited to send contributions to this department to ask questions on matters relating to butter making. It is suggested that they send their Address letters to Creamery Department.

**Errors in Cream Testing\***

J. F. Singleton, Kingston, Ont.

Many patrons of creameries are either dissatisfied with the business, or indifferent to it. The dissatisfaction is largely over the testing of the cream and this is a problem which creamerymen must consider before long. In fact the trouble has become quite acute in some sections and one prominent creameryman has said that this is the most difficult problem with which creamerymen have to deal.

There is no uniformity among the different creameries in methods of testing. Some use the 17.6 c.c. pipette and do not rinse it after taking the sample; others rinse it after taking the sample and add the rinse water to the test bottle; others use the 18 c.c. pipette either rinsed or not. None are using the scales to weigh the sample. The difference between using a 17.6 c.c. pipette not rinsed and an 18 c.c. pipette rinsed, with the rinse water added to the test bottle, will make a marked difference in the reading of the same sample of cream.

**TWO EVILS**

This lack of uniformity, and this inaccuracy in testing has two evils. First, a correct comparison cannot be made between the price per pound of fat paid at different creameries, and secondly, any method of testing by means of a pipette will not do justice to the different patrons.

The creamery using the 17.6 c.c. pipette and not rinsing it does not credit the patrons with the fat in the water they deliver, consequently a higher over-run is obtained and an abnormally and fictitiously high average price per pound of fat is paid. The neighboring creamery may be using an 18 c.c. pipette and rinsing it after taking the sample. The over-run is not so high, neither is the price per pound of fat, but the patrons get as much money, other things being equal, in that they are credited with more pounds of fat. This causes dissatisfaction among patrons of both creameries, in the first creamery over the lowness of the test, and in the second creamery over the lowness of the price.

**TEST BASED ON WEIGHTS**

The Babcock test is based on weights and it is simply for convenience that we use a pipette in testing milk. Milk is fairly constant in weight so we can use the pipette in testing milk and get accurate results. But with cream we have an entirely different proposition, for it may vary in fat content from 11 per cent. to 60 per cent. or even higher. As fat is the lightest constituent of cream, the more fat cream contains the less will a given volume of cream weigh. This explains the inaccuracy of any pipette in testing cream. An 18 c.c. pipette rinsed and the rinse water added to the test bottle, will with a 27 per cent. cream deliver the correct weight into the test bottle. As the percentage of fat increases the sample becomes lighter and the test is too low, while as the percentage of fat decreases, the sample becomes too heavy, giving too high a test. This is used in doing the testing, the man sending rich cream does not get paid for all the fat he sends, while the

man sending cream containing less fat than 27 per cent. will get paid for more fat than he sends, and the greater the extremes the greater will be the error be.

**PREMIUM ON THIN CREAM**

The patron is advised by creamery men and instructors to get the test up somewhere between 30 per cent. and 35 per cent., and this has many advantages, yet the testing is done in such a way as to put a premium on low testing cream. The remedy for this is to use the scales and weigh each sample into the test bottle and each patron will get paid for what he sends. The use of the scales in cream testing will do away with much of the friction with and dissatisfaction among creamery patrons.

The sampling is usually quite accurately done by the hauler, but the samples do not in some cases receive the attention they should at the creamery. The samples should be warmed up occasionally and the preservative mixed with the fresh cream. They should also be kept well cooked for if left uncooked, moisture evaporates, leaving the test too high. This has no doubt been responsible for some low over-runs.

**Export Cream to United States**

J. A. Ruddleick, Dairy Commissioner, Ottawa

The export of cream to the United States, made possible by the reduction of the duty to five cents a gallon under the new tariff as against the former duty of two cents a pound, deserves special mention, for here we have a real menace to our cheese trade as far as it affects the volume of the exports. Every gallon of cream that is exported, under present conditions in our export dairy trade, practically means just that much less cheese for export, and the indications are that this cream trade may grow to large proportions. The figures are available only up to the end of November, but they show a surprisingly rapid growth. Month by month they are as follows,— August, 16,569 lbs.; September, 121,692 lbs.; October, 300,993 lbs.; November, 700,599 lbs.; total 1,229,703 lbs.

It seems quite probable that the total shipments up to the end of the year will not be less than 2,000,000 pounds of cream. As this cream is made of very rich and averages over 40 per cent. fat, it represents somewhere about 1,000,000 pounds of butter. How long this may continue I do not know. Well informed people in the United States, with whom I have discussed the matter, say the tariff will not be changed during the term of

\*Extract from an address delivered at the E.O.D.A. at Belleville last week.



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the present administration. It must be dealt with by Congress, and I understand that there is great reluctance to having the tariff question opened up.

I do not see that the producers need worry over the matter so long as they receive good prices for the cream, but there is one feature of this development which is to be regretted. I refer to the closing of cheese factories and creameries by the purchase of cream direct from the farmers. The owners of these factories will lose both their business and their investment and when the time comes, as it most likely will, sooner or later, the disorganization that has occurred will be awkward.

**A Successful Year**

The Sidney Cheese and Butter Factory, Limited, has closed a very successful year. Milk received was 3,198,800 lbs., the cheese made was 290,800 lbs.,—27.86 per standard yield \$10.90. The company is now putting in cold storage. They pasteurize the whey. With these added improvements, the factory stands second to none in the Province.

Bay Side paid \$27.60 and Acme, another factory in the west, we understand paid \$27.70. These three factories make up the milk of the three front concessions of Sidney township, Hastings Co., Ont.—J.K.

**Renew your subscription now.**

Your Last Opportunity of Sharing in the

DISRUPTION OF "O.A.C. No. 21" BARLEY

is now before you. This is the last time that this advertisement will appear. If you wish to share in the distribution of "O. A. C. No. 21," on the conditions stated, write FARM AND DAIRY at once to that effect. A limited quantity only of this seed is available. If you want "O. A. C. No. 21," that great barley, which as Prof. C. A. Zavitz has said, is bound to become generally grown over Ontario and which has yielded as high as eight bushels an acre more than the common Mandscheuri barley, then take advantage of this offer:

Two Bushels of "O.A.C. No. 21" for only  
Four New Subscriptions to Farm and Dairy  
One Bushel for Two New Subscriptions

Subscriptions to be taken at \$1.00 each in both cases. The barley will be delivered f.a.b. Brantford, Ont.

Write us if you want to share in this great premium offer. It is your last opportunity. So canvass your friends at once and get them to subscribe to FARM AND DAIRY and send in their subscriptions to:

CIRCULATION DEPT. FARM AND DAIRY PETERBORO, ONT.

\*Extract from an address delivered at the E.O.D.A. Convention in Belleville last week.

## Cheese Department

Makers are invited to send contributions to this department, to ask questions on matters relating to cheese-making and suggest subjects for discussion. Address letters to The Cheese Making Department.

### Is the Canadian Cheese Trade in danger?\*

J. A. Buddick, Dairy Commissioner.

If we were to judge of this matter by the comments which have appeared in the press during the last year, or so, we might readily come to the conclusion that the Canadian cheese trade was in a serious danger of being wiped out. "Canada is Losing Her Cheese Trade," "The Cheese Industry a Declining One," "A Great Chance has come over the export cheese trade of Canada within the past few years, owing to the competition which has sprung up from New Zealand." "The only hope for Canadian cheese in the British market lies in the possibility of New Zealand turning to the manufacture of butter." These are some of the headlines and passages which have appeared in the Canadian press during the past year.

Personally, I do not share these pessimistic views. Not a single box of Canadian cheese has been displaced on the Old Country market by New Zealand cheese. As a matter of fact, the increase in New Zealand shipments is wholly the result of the decrease in Canadian shipments and not the cause of that decrease. I am personally familiar with the situation in New Zealand and I speak with confidence on that point. Had it not been for the falling off in the Canadian exports, which resulted in a higher relative price for cheese as compared with butter, and thus encouraged the New Zealand factories to make cheese instead of butter, the New Zealand shipments of cheese would have shown very little increase during the last five years. The Dairy Commissioner for New Zealand appreciates the situation when he refers to the decrease in Canadian shipments in his last annual report, he winds up with the statement, "It falls to New Zealand's lot to endeavor to supply the home market this shortage in Canadian exports."

#### A COMPARISON OF EXPORTS

In 1904, the Canadian exports reached the maximum, in round figures, of 233,000,000 pounds. In 1909, the quantity exported was 164,000,000 pounds, or a decrease of 69,000,000 pounds. In 1904, the New Zealand exports were 9,000,000 pounds, there having been little or no permanent increase for about 10 years. In 1908-09 the exports from New Zealand to Great Britain had risen to 37,000,000 pounds, an increase of 28,000,000 pounds. It sounds rather alarming to say that the New Zealand shipments have been quadrupled in four or five years, but the actual amount of the increase is considerably less than half the decrease in the shipments from Canada. It will be seen, therefore, that the total of the imports of cheese into Great Britain from both countries is now smaller by 42,000,000 pounds than it was in 1904. It is difficult to see where there is any serious menace to the Canadian cheese trade in these figures. It is worthy to note also that the increase in Canadian shipments for the season of 1909 over those of 1908 will probably be greater than the increase in the shipments from New Zealand for the same period and yet this fact scarcely receives a comment which the New Zealand increase has been harped on continually.

I do not mean to say that the increased shipments from New Zealand are a net, if the Canadian shipments had

would have had no effect on the market maintained at their maximum. But then, as I have already pointed out, if the Canadian shipments had been maintained, New Zealand shipments would not have shown any increase.

If there is any menace to the Canadian cheese trade in the New Zealand shipments it is not in the mere volume of these shipments, but in certain qualities which the cheese possess and some other things which I shall refer to later. Over-production alone, with the inevitable lower scale of prices, would work its own cure, for in that event the New Zealand cheese at once declines and is replaced by butter. There are other aspects of the situation, however, which should give us more concern. We must not overlook the sentimental effect of a new supply on the market and when the supply presents such features as the New Zealand cheese does at present, it offers rather a good field for the operation of bearish speculation.

Let me give you a calculation which may serve the purpose of impressing you with the magnitude of the industry in which you are engaged. I have computed the value of our exports of butter and cheese from 1880 up to the end of last fiscal year and I find that they total \$359,707,012 for cheese and \$62,399,931 for butter. If we add the value of the consumption of milk, butter and cheese for the same period at \$10 a head, we have the unthinkable amount of \$1,885,980,793. Now, just think, if you can, of the enormous volume of milk which has been produced to be worth that much money, at \$1 per 100 lbs. It would make a lake approximately eight miles long, one mile wide and 15 feet deep and it would supply you stream 10 feet wide and one foot deep, running at the rate of three miles an hour, for two years and two months.

### Report of Instruction, Eastern Ontario\*

G. G. Pablow, Kingston, Ont.

The total output of cheese from May 1st to Nov. 1st was 40,178,874 lbs., the average amount of milk required to make a pound of cheese being 10.76 lbs. This is an increase of 4,369,965 lbs. for the six months from 6,000 cows less than last year, which at the average selling price of cheese for the season amounts to \$697,754.35. The testing of milk for adulteration was conducted by the instructors; 41,412 samples were tested by lactometer and Babcock tests, and of this number 141 gave indications of having been tampered with. After a thorough investigation had been made 107 cases were handed over to be dealt with by the official prosecutors engaged by the E.O.D.A.

#### CONVICTIONS FOR ADULTERATION

Convictions were obtained in all cases and fines were imposed on the convicted parties of from \$5 to \$50 and costs, amounting in all to \$2,405. Of this amount \$1,267 was paid over to the treasury of the E.O.D.A. and \$1,137.66 to the treasurers of factories in which the offences were committed.

The number of factories paying for the milk according to test is only 86 or one less than last season.

It is very gratifying to note the continued improvement in the factory buildings and surroundings. Of the 1951 factories under the direct supervision, 844 were kept in a good sanitary condition throughout the season. The foul smelling, dilapidated buildings, which used to be so common, will evidently soon be a thing of the past, as factorymen are making the required improvements about as quickly as the profits from their business will warrant.

Twenty-seven new factories were inspected. The report of the Chief Dairy Instructor and Sanitary Inspector, as delivered in Belleville last week.

built this season and 493 made improvements in buildings or plant. The estimated expenditure including new buildings, amounted to \$136,542.00 which is \$2,847.00 more than the amount expended last year in this way.

#### FACTORY IMPROVEMENTS

The weaker point in the factories, as a rule is the lack of good facilities for controlling the temperature of the curing rooms throughout the different months of the year. It is to be hoped that this matter will soon come to realize its benefits to be derived from having a uniform low temperature for the curing of their cheese, and that they will co-operate with the manufacturers in providing the proper facilities.

The manufacture of butter from the whey is on the increase. The number of factories engaged in it this year was 119 compared with 63 last year. The yield of butter showed a wide variation of from three and a half to seven and a half pounds a ton of whey, the increased yield being obtained when the milk was delivered in an over-ripe and gassy condition. The great bulk of this butter, is used by the factory patrons, the price paid being about the same as for creamery butter. The majority of patrons express themselves as being fairly well satisfied with the quality.

#### PASTEURIZING WHEY

The number of factories that practise the pasteurizing of whey has increased, there being 63 doing so, as compared with 26 last season. When the whey is to be returned to the farms in the cans in which the milk has been delivered to the factory, pasteurizing, when properly done has much to commend it. There are many benefits to be derived from it. The whey is returned in a much sweeter condition, there is a more even distribution of the fat, the cans are much more easily cleaned, and it prevents whey tanks at the factory becoming the seething centre for many undesirable fermentations. It has also been proven to be one of the best methods we have tried for keeping the whey tanks in a more sanitary condition.

The average quality of the cheese has been of an exceptionally high standard, and although the makers met with a good deal of difficulty, fewer rejections were reported than in any previous year. The most common defects in the cheese complained of were openness of make and flavor not clean. Very few complaints were made regarding acidity cheese, and the improvement in this respect has been very marked. Some complaints were made regarding the finish and the appearance and uniformity in the size of their cheese, and this defect is not excusable as it is entirely under the control of the maker.

# 10 to 1

## They Dare Not Do It



Simple, sanitary, easy to clean, Sharpley Dairy Tubular Cream Separators probably replace more milk and other costly separators every year than any other maker of such machines sells. Common separator makers use absurd pictures and statements to mislead you into believing that is the other way around—that their machines are replacing the Tubulars. We offer the only chance to dispute the facts:

Let any one of them print the names and addresses of all persons who have—for any reason whatever—exchanged a Tubular for his machine during 1909. We guarantee to print a list of LEAST TEN TIMES AS MANY as those who have discarded his class machines for Tubulars during 1909.

These makers dare not accept the offer. The facts would end their business. This should decide you to let the Tubulars be "The World's Best" and no other. Sales are good, most, if not all, others combined.

30 Write for Catalog No. 253  
Jrs

**THE SHARPLEY SEPARATOR CO.**  
Toronto, Ont., Winnipeg, Man.

The efforts we have been putting forth to put the dairy business on a more substantial and prosperous basis in Eastern Ontario, are beginning to show very encouraging results. Among the factorymen we find a greater enthusiasm and confidence in the work than ever before. The new factories they have erected have an

(Continued on page 15)

## Purity Salt

Is all the name implies, as near pure as it is possible to make salt—about 99%.

"Purity" Salt goes further and does better work than ordinary grades of salt.

For Samples and Prices, Write:

**THE WESTERN SALT CO., LIMITED**  
"DEPT. A" MOORETOWN, ONTARIO

## PERFECT STEEL CHEESE VAT

Our 180 Steel Vat is going to be just a little better than the best before. Can't improve much over last year—it was a dandy. The tin lining in this year's vat will be 20 gauge—the heaviest ever used—causing heavier than your local tinmith uses. The outside frame will be all galvanized—no painted iron.

Patented August 14, 1909

Write for new catalogue with prices reduced. It will interest you.

**THE STEEL TROUGH AND MACHINE CO., Limited**  
TWEED, ONT.

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



THE most precious things in the world are those which cannot be bought—the tender touch of a little child's fingers, the light of a woman's eyes, and the love in a woman's heart.

## "A MAN'S CASTLE"

By Emily Calvin Blake  
(Concluded from last week)

SO the next evening at the first opportunity, Leonard put the question to his wife, and waited anxiously for her answer.

"But, Len, dear," she protested, "Mother and Father would be so lonely if we came upstairs after dinner. And Mother is so sensitive, and she might think that we did not care for her company."

All resistance seemed to leave the husband. He did not attempt to argue.

"Very well," he assented listlessly; "just as you please."

Helen came and sat on the arm of his chair, leaning her head lovingly against his.

"Dear boy," she said; "don't we owe something to others?"

"Indeed we do, Helen," he answered promptly, "but I want you all alone."

A puzzled frown lay between Helen's eyes as she replied:

"Now you want me all alone," she echoed; "when we are married!"

Leonard gave a quick, impatient sigh.

"I cannot discuss it with you, Helen," he confessed, "because I don't quite understand the situation or my own longings. I was perfectly willing to live here with your parents for the first year, but—"

"Aren't my parents good to you?" inquired Helen softly.

"They are," the young man admitted; "but sometimes I want to feel that I am everything to you as you are to me. Don't you understand that, little girl?"

"I'm sorry, dear," Helen said; "but I don't understand why we can't be everything to each other and still live here. My Mother is so much to me; I couldn't bear the thought of leaving her."

Suddenly Leonard sat up and, taking the girl's hand, looked earnestly at her.

"If your Mother is everything to you, why did you marry me?"

"Oh, Len, Len," the girl cried, a sob catching at her throat, "how can you ask such a question? You know that I love you."

In a moment Leonard was all contrition. He too cher fondly into his arms and stroked her hair.

"There, there, Helen, we'll not talk of it any more," he promised. "I am selfish."

Nothing more was said at the time and yet the talk did not serve to satisfy the questions that besetged the young man.

And, soon the inevitable happened. Leonard became a frequent visitor at the club. The first night he went there he left at midnight. He ex-

perienced a little sinking of the heart as he opened the front door of his home. What would Helen say? But Helen was asleep with a little smile on her lips, and just as he entered the room the white haired mother emerged therefrom. She held up a warning finger.

"Be very quiet, Len," she murmured. "Helen does not sleep soundly upon first going to bed. I've just tucked her in."

A muttered imprecation rose to Leonard's lips. Not one word from wife or mother regarding his absence. True, he had telephoned that he would not be there for dinner, but that was no reason for them to conclude that he would remain all evening.

I have been receiving Farm and Dairy for several weeks past and I regard it as an admirably edited paper and a weekly repository of interesting matter and profit to all in the community.—Rev. J. P. Black, Peterborough, Co., Ont.

With unhappiness tagging at his bewildered heart, he retired.

The next day Helen telephoned to him.

"Shall you be at home to-night, Len?" she asked. "If so, be prepared to go to a box party with the Herberts."

"That's the first I've heard of a box party," Len growled abruptly; "I don't think I before."

Helen admitted, sweetly, "but if you'd rather not go—"

"I'd rather not," Leonard answered abruptly; "I'm sorry," he added somewhat contritely.

"It doesn't matter at all," Helen assured him, innocently; "Mother is going."

"All right," her husband responded. "I hope that you'll enjoy yourself."

He hung up the receiver and turned to his desk. What was the end to be, he wondered. Helen seemingly had no need of him. That was the secret, he believed, bitter.

Then a resolution formed quickly in his mind. Nearly a year had elapsed since his marriage. He would broach the subject of a home of their own. His face brightened as pleasant thoughts present themselves to dispel the gloomy ones.

How wonderful it would seem. Helen walking to the station to meet him; the little dining-room table at which he might sit and watch her sweet face, unobserved by other eyes than his. He would be glad to have Helen's mother visit them in his home, the home that he had prepared for his wife. And then the long evenings together. He would

insist upon a lamp in the sitting-room. Helen would sit on one side of it and he on the other. He would read his paper and perhaps Helen would sew. He had never seen her sew, he now remembered.

Dearest of all was the thought that she would come to him for everything. That she might ask his opinion and consult his wishes.

Unconsciously he found himself whistling, and he felt happier than he had since his marriage.

That night he waited impatiently until Helen returned from the theatre. He remained in their room until she came upstairs. He had learned to wince when the mother advised him not to talk too long to Helen as she was sleepy, or to be careful that she was warmly covered. He felt that alone he could see to all that. Did not the girl belong to him?

Hastily he put the crowding thoughts from his eye entered the door. She came in, a vision in fairy white.

"Oh, Len," she exclaimed, "You are at home, I am so tired!"

"Are you, sweetheart?" he answered lovingly. "Let me loosen your coat."

She came to him and held her face up while he fumbled with the hook.

Then, when the fastening fell apart, Len lifted the dimpled chin of his wife and looked longingly into her eyes.

"You are tired, little girl, I know," he commenced; "but I can't wait. Helen, the year is nearly up. Shall we go to a home of our own?"

He waited breathlessly for her answer.

Helen drew away petulantly.

"Oh, Len," she protested; "not yet; I am so happy here with Mother. And she would love so."

"Very well," Leonard answered, at once; then he added hastily: "I was a fool forever consenting to live here."

Helen's face paled, but she did not speak at once. Then as she removed

alrupt announcement:

"I am going away!"

Helen let her eyes seek his for a second before replying.

"Permanently?" then she asked. A peculiar expression crossed the man's face.

"Oh, think so—I hope so," he said.

"Oh, Helen," the mother spoke: "why do you say that? Are you not happy here? And you would not take Helen away?"

"No," he assented with a short laugh; "I would never care to go with me. I shall leave her—with you."

"When do you go?" Helen's tones were calm, yet they set the man on edge.

"As soon as I can arrange," he answered without looking at her. His brain seemed bursting with the many thoughts that surged madly through him. The old question rose uppermost. What was it all about, anyway? What had begun it?

The mother looked from one young face to the other. She could not understand. Had they not treated Leonard as a son?

Suddenly the man turned away.

"I'm tired," he said, "good night." Helen put down her book.

"It is late," she admitted; "I think I'll retire too."

She went swiftly to her mother, and kissed her loving on each cheek.

"Come upstairs, dear," she requested, softly; "I don't want you to stay down here alone."

The mother put the girl's clinging arms gently from her.

"Go with Len, Helen," she said quietly; "I'll sit here for a little while."

Helen lingered for a moment, then followed her husband.

Left alone, the mother seemed to be able to grasp but one thought. Her daughter was to be separated from her husband.

Tears rose to her eyes; then her mind went back to the early years of her married life. She and her husband had been poor.

They had lived in four small rooms, yet they had been happy. She, therefore, possessed no experience to guide her and show her that the year of adjustment should be spent alone.

Then, motherhood with its train of blessings had come to her. How happy she had been. She had had no helper of any kind. But it had been joy to her when she and her husband had dressed the child together; when he, in loving helpfulness, had wiped the dishes and perhaps dusted the ornaments in that little kingdom of their own.

The words echoed in her heart: "the little kingdom of their own!" Where she had reigned mistress and he master, at times very pale and thin, still continued her unceasing round of gaiety.

Then one day Leonard overheard a conversation which quickened his desire to change domestic affairs as they now stood. The new man, who desired to send a man to another state to open new offices.

"We would offer the position to Reynolds," Leonard heard the president say; "but his mother is ill."

Almost without thought, Leonard made up his mind to ask for this position. He would have spoken then, but the chance did not present itself. He felt confident that the position would be given to him should he desire it.

As usual he spent the evening at the club. It was after midnight when he arrived home.

Contrary to the usual custom, Helen was not asleep when her husband came in. She sat near the lamp in the library room, and her eyes would never retire until Helen had done so, sat near, idly turning the pages of a magazine. Both women looked up as Leonard entered. Helen smiled absently at him, and immediately resumed her reading.

Walking to the table near which his wife sat, the young man made an

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Then, at once, the motherhood that dwelt within her, ennobled her. Resolutely she turned from the picture. Her duty lay straight before her and she would not shrink it.

One last, lingering look she gave to the baby Helen. Then, quietly mounting the stairs she passed down the long hall leading to her daughter's room. She knocked with a steady hand. Helen answered.

The mother turned the handle of the door and stepped bravely. Her eyes followed the dim light till she discerned the figure of her daughter seated near the window. Leonard was not there.

"He is in the spare-room," Helen vouchsafed the information dully.

She did not seem surprised to see her mother. An apathy seemed to have fallen upon her. She was groping dully among the facts which she could summon to her aid. One thought only stood out clearly. Leonard was going away. He had not asked her to wait for him and she knew that she could not go if he had.

Something in her mother's face arrested her attention. The light that lay in her dear eyes, the smile that transfigured her sweet lips, touched Helen keenly.

"Has anything happened, Mother?" she asked.

"Yes, Helen, something has happened," the mother replied.

Then she drew the girl to a seat on the wide couch, and folded the slight figure to her.

"You must go with Leonard," she began. "No, do not draw away, little girl." She paused. "I have created you out of too much happiness."

The girl shivered.

"I can't understand, Mother—" she said, just as she had spoken to her husband.

"You will not understand, Helen," the mother's voice trembled and caught in her words, "you will not understand until you have risen to the height of sacrifice. When you have worked for Len, when you have shared his troubles, then you will understand."

The girl listened intently.

"I have learned my lesson late," the mother continued, "but not too late. You shall go with your husband and take your place at his side. No, do not think of me," she went on, as Helen protested; "think of him."

"Are you willing to let me go—?" Helen asked wistfully.

"I am anxious to have you go," the mother answered bravely. "Do not refuse, dearest, for I am sending you to true happiness."

The door opened suddenly. Leonard stood on the threshold. At sight of the two women his face hardened into bitter lines. Why was the mother here? Could she then so easily take his place? Then his eyes caught and rested on Helen's white face. She leaned forward as if to beckon to him. At once, he went to her, urged by something within him. The great love that he bore her came forward and found utterance in hasty words.

"Helen," he cried, "I've thought it all out. I have been cruel and selfish. Can you forgive me? We shall stay here and you shall do as you please. That empty room in there has taught me that nothing matters so that we are together."

Helen leaped forward, impelled by the birth of something within her heart.

"Listen, dear boy," she whispered, softly. "Mother has opened my eyes. They are not wide awake yet, but she finished laughingly, yet with a treacherous sob in her throat, "but Mother says—"

He looked up wonderingly as she passed. It was the white-haired woman who answered the look in his eyes.

"Mother says," she murmured, taking up her daughter's words; "Mother says that you two children are to

begin life together now in your own little home."

Leonard caught her hand in his. With the instinct that it sometimes gives to man, he caught the trembling renunciation in his voice. He carried her hand reverently to his lips.

"Mother," he said softly, "I shall love you always."

And the silence that followed was ripe with the promise of many things.

### The Home on a Prize Farm

Mrs. J. W. Richardson, Caledonia Ont.

Our house was built seventeen years ago. It was the latest that it sometimes gives to man, he caught the trembling renunciation in his voice. He carried her hand reverently to his lips.

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way. The rain water runs off the roof into this tank, but in times of shortage water can be pumped up by a windmill from a soft water cistern at the barn. We have both hot and cold water taps. The hot water is heated by a range in the kitchen at little or no expense.

The bathroom is properly fitted up, and plumbing was done by a qualified plumber, several years ago at a cost of a little over \$100.

All sewage from the house is conducted with a 4 inch tile, which empties about 40 rods from the house. All pipes emptying into the sewer are properly fitted with traps, preventing any odor from escaping.

We find the bathroom very convenient and would not like to do without



Prize Winning Home, owned by J. W. Richardson, Haldimand Co., Ont.

Some of the features regarding this home and how they assisted in making it one of the prize farms, are set forth in the article in this issue by Mrs. Richardson.

it, as it saves many steps in cases of sickness."

#### EXTERIOR ATTRIBUTIONS

We have a cement walk three feet wide from the barn to the house, which saves bringing in of a great deal of dust, etc. We also have cement walks three feet to four and five feet all around the house. Between the walks up to the house steps, are the flower beds. We took more pains with these this year, also our lawn I think was better attended to and same in better order than previous years.

#### OUR FRUIT ORCHARD

Our fruit and vegetable garden is at the back of our house and is protected on two sides by a high cedar hedge. It is laid out in rows so that much of the labor can be done with horse cultivator. We have a variety of all small fruits, suitable for growing on our soil and have always an abundant supply of fresh fruit in season for the table and canning for winter use. Our vegetable garden is arranged and worked the same way. Our orchard is mostly winter fruit with a few select varieties of harvest and fall fruit.

#### READING MATTER

As to educational matters we have coming in our home every week, a daily paper, a semi-weekly, four church papers, two ladies' journals, three children's magazines, our own local papers and the three best agricultural papers, including Farm and Dairy, which is fast filling a place in the farm home and should be taken by every wide awake farmer and dairyman. Especially is the Household Department of Farm and Dairy including the Upward Look, of interest and value to both young and old.

#### A NEW FEATURE

In a new feature in our farm, since the Farms Competition, is the erection of a two story house with cellar under all, with a good supply of hard and soft water, for the accommodation of farm help. This house is

large enough and so arranged that it can be used either as a single or double house. This we hope will, to a great extent, lessen our labor over the farm help in our home.

### Storing of Groceries

Flour comes packed both in barrels and in bags, and the form in which it shall be purchased and kept is of importance to the housewife. Bags have certain advantages over the barrel for both producer and consumer; they pack into freight cars with no waste of space, and the cloth for 8 bags costs less than one barrel; for the consumer, also, it is often convenient to buy in small quantities. But, on the other hand, the flour is too often very flimsy in texture, so that it allows our to sift out, and is also easily soiled by contact with a damp or dirty floor. The purchaser may well require that the bags be made of good material, so that the flour which may be protected from dust and dirt.

Aside from accidental contamination, the chief destructive agencies in stored flour and similar materials are fungi and bacteria. The fungi or molds break down chiefly the starches of the flour, forming organic acids which make the flour sour.

The various prepared or "self-raising" flours are more expensive than the mixture that the housewife can easily make by adding the requisite amount of baking powder to flour and sifting it several times. It is a convenience and a saving of time to keep this mixture on hand, as one sifting provides enough for a month's use in cakes and muffins.

The fact that many breakfast cereals that were once sold only in bulk can be bought in packages is a great advantage from a sanitary point of view. The contents of these packages, if bought fresh and if well cared for, will remain in good condition for months. If made in clean factories, such goods have had little chance for contamination from dust and dirt.

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

Don't Throw It Away

**MENDETS**

They mend all leaks in all climates—oil, brass, copper, galvanized, hot water bags, etc. They mend all leaks in all climates—oil, brass, copper, galvanized, hot water bags, etc. They mend all leaks in all climates—oil, brass, copper, galvanized, hot water bags, etc. They mend all leaks in all climates—oil, brass, copper, galvanized, hot water bags, etc.

### Easy Churning

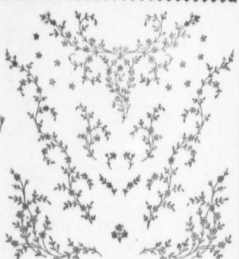
No more tired arms and aching back when churning, when you get your "Favorite" Churn. You can churn by hand, by foot or both. Easiest running churn you ever saw. Easy to clean. Churns best quality of butter. Strong, rigid frame—roller bearings—light cover. 8 sizes, to churn from 1/2 to 30 gallons of cream.

"Champion" High Speed is the new Momentum Balance Wheel Washing Machine.

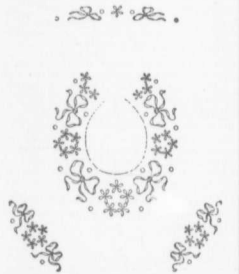
If your dealer does not handle them, write us. DAVID MAXWELL & SONS, - ST. MARTIN'S, ONT.

### 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.



417 Design for Embroidering Sprays of Forget-Me-Not. Suitable for a lingerie waist or for any object for which small flowers are appropriate. Patterns for eleven aprons and ten separate flowers are given.



446 Design for Embroidering a Round Yoke, Collar and Sleeves of a Blouse or Princess Gown. The flowers, ribbons and dots are designed to be worked in solid embroidery, or the ribbon and dots in solid embroidery, the flowers as eyelets.



465 Design for Embroidering a High Turned-Over Collar and Cuffs.



457 Design for Embroidering a Cushion Cover or Pillow Top 17 inches sq. Get one of our Fountain Pens.

### The Upward Look

#### Asking

If ye, being evil, know how to give good gifts unto your children, how much more shall your heavenly Father give the Holy Spirit to them that ask Him.—Luke 11.13.

When we ask God for the gift of His Holy Spirit it does not matter how earnestly we ask, or how much we may long for it, if the motive which prompts us is not a worthy one. God reads our minds, and knows our thoughts better than we do ourselves. The devil is terribly ingenious and deceitful in the devices he adopts to accomplish our downfall. He often cloaks his designs with that appear to be righteous motives. That is why we are told that "The heart is deceitful above all things, and desperately wicked, who can know it? I, the Lord, search the heart, I try the reins, even to give every man according to his ways, and according to the fruit of his doings.—(Jeremiah 17.9, 10).

When, therefore, we ask God for this, the great blessing, we must make sure that the motive which impels us is one that will be pleasing to God. We should ask ourselves earnestly why we desire it. "One of the subtlest and most dangerous snares into which Satan leads us, is that where we are seeking the Holy Spirit, this most solemn of all gifts, for our own ends."

A minister who desires the gift of the Holy Spirit so that he may convert a large number of people in order that the church membership may be increased and the church become a larger and more prosperous one than some others, as well as the man who desires the gift of the Holy Spirit in order that others may see and admire the piety and influence of His spirit, are both acting from unworthy motives. God will not listen to them.

Our one and only desire must be to go live and act that God will be glorified by all that we do. We must be willing and even anxious to sink our own identity out of sight. Many are unwilling to do this and for that reason God does not answer their prayers. If we find that our desires are unworthy ones then we should ask God to forgive us the thoughts of our hearts and to enable us to see how we need it for His glory, so that we will desire it for that end. We must be willing to act merely as the channel through which God's spirit shall flow. There is still another step that we must take. This will be discussed next week.—H. N.

House cats are known to have had diphtheria and to have communicated it to children.

### THE COOK'S CORNER

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

Our New Cook Book free for only two new subscriptions.

#### BAKED MUTTON

Cut the chops from a shoulder of mutton, heat 2 tablespoonsful of fat taken from the top of a bowl of stock, and saute it in an onion, sliced thin, then the chops. Put them into a covered baking-dish upon a bed of chopped turnips, carrots, onion and celery; rinse the frying-pan with a cupful of stock and pour over the chops. Cover closely and cook about 1 1/2 hrs., then turn the chops and season with salt and pepper; add 3 medium-sized potatoes previously cut in quarters, and parboiled in salted water. Add more broth, if necessary; cover closely, and cook 30 minutes, or until tender. Remove the cover, brown nicely and serve at once in the dish in which they were cooked.

#### COFFEE BLANC-MANGE

Heat 1 1/2 cupfuls coffee in a double boiler and add a pinch of salt. Beat an egg very light in a bowl, and to it add the following ingredients, beating thoroughly: 1/4 cupful milk, 6 tablespoonfuls sugar, and 2 tablespoonfuls corn-starch. Stir slowly into the hot coffee and season until it thickens. Pour into individual molds, and serve very cold, with whipped or plain cream flavored with vanilla.

#### BREAD PUDDING

To 1 qt sweet milk add 2 cups fine, dry breadcrumbs, yolks of 3 eggs, 1/2 cup sugar, and 1 tablesp butter. Soak the crumbs in the milk for 1/2 hour, then stir in beaten yolks, butter and sugar, and flavor with a teasp lemon extract or 1/2 teasp grated nutmeg, and 1/2 teasp salt. Stir all well together. Bake in moderate oven until custard is set, or about 1/2 hour. When done, spread over the top a meringue made of the whites of 3 eggs beaten stiff with 3 tablesp sugar, and flavor to taste. Return to oven and brown lightly.

#### FRENCH FRIED POTATOES

Pare the potatoes, and throw into ice water for at least an hour. Cut in slices, blocks, balls or any fancy shape, and dry them on a towel. Drop quickly into hot fat and brown, skim into a draining basket and put in the oven to keep warm until ready to serve.

I have found that most ginger cookies are better if the dough is allowed to stand a little while before baking.

### The Sewing Room

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

#### GIRL'S PRINCESS DRESS 6534



Princess dresses are among the prettiest possible frocks for little girls. This one can be made simple or dainty as suits the material and the occasion. It can be made with high neck and short sleeves, or with long neck and plain long sleeves.

Material required for medium size is 8 yds 24 or 27, 3/4 yds 24 in wide with 3/4 yds 44 in wide with 3/4 yds insertion, 2 1/2 yds of ribbon.

The pattern is cut for girls of 2, 4, 6 and 8 yrs., and will be mailed on receipt of 10 cts.

#### WORK APRON 6537



A protective apron like this is needed by every woman whose occupation or pleasure may mean soil to her gown. Checked or striped aprons of linen with bands of white makes the one illustrated but ginghams and percales, lawns and all similar sturdy materials are also appropriate.

Material required for medium size is 10 yds 24 or 27, 3/4 yds 26 in wide with 1/2 yd 27 in wide for bands.

The pattern is cut in 3 sizes, small 32 or 34, medium 36 or 38, large 40 or 42 in bust, and will be mailed to any address on receipt of 10 cts.

#### MISSSES' WAIST 6532



Waists with trimming portions of contrasting materials are very pretty and attractive. It includes the narrow deep chemise and can be made either with or without the sleeve puffs.

The waist is made with a fitted lining, which is optional. It is tucked becomingly and the trimming portion is arranged over it.

Material required for the 16 yr size is 2 1/2 yds 24 or 24, 1/2 yds 24 in wide with 1/2 yd 44 in wide of chemise and deep cuffs, and 1/2 yd 44 in wide for the 16 yr size.

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

#### SURPLICE WAIST 6457

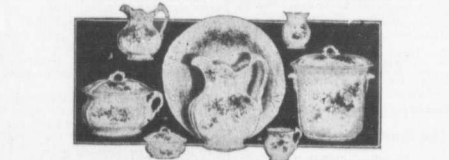


Surplice waists are among latest developments. This one is graceful and will be found adapted to all the pretty soft materials that were to be so much worn this season.

Material required for medium size is 5 1/2 yds 21 or 24, 4 yds 32 or 3 1/2 yds 44 in wide with 3/4 yd 18 in wide for the 50's and souchae according to design to make as illustrated: 3/4 yds 21 or 24, 2 1/2 yds 32, 1 1/2 yds 44 in wide to make with plain sleeve and centre portions.

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

## A USEFUL PREMIUM SURE TO PLEASE ANY WOMAN



Our 10-piece Toilet Set is made of absolutely the best grade English semi-porcelain ware. All pieces are large, full size. The decoration consists of wild flowers, prettily entwined with foliage.

We can furnish it in dark blue, pink or peacock blue. Given for 5 new yearly subscriptions to Farm and Dairy Shop Jar with cane handle, to match above set for 2 additional subscriptions. Address:

CIRCULATION DEPT. FARM AND DAIRY PETERBORO, ONT.

## Dairy Farms Competition

R. R. Ness, Judge in the Eastern Districts

I have just finished a very pleasant second tour of inspection of those farms of Eastern Ontario, that were entered in the competition conducted by Farm and Dairy to determine the best dairy farms. There was in many cases a showing of improvement in care and handling of stock in winter quarters over summer conditions. In most cases I found good, spacious barns, fairly well lighted; much improvement, however, could be made along this line.

### VENTILATION

In most of the barns examined some plan of ventilation was used, and in a few cases good lessons were to be learned from the plans in use. There is much room, however, for more improvement in this matter of ventilation in most stables. Light and ventilation are very essential things in keeping healthy herds of cows, particularly dairy cows. While endeavoring to have the stable comfortable for their cows many are apt to close up the stables and forget about ventilating.

Watering systems of various plans are to be found in most of the barns, thus adding to the comforts of the cows; and this is one of the comforts that should be in every stable, where

ther turning cattle out for exercise is practised or not.

### SILOS

The silo has now become one of the main buildings on the farm of almost every dairy farmer, as well it should be; those who have not already a silo contemplate building one as soon as they can. With silage, a little grain, comfortable, convenient, well-lighted stabling, and the creamery, the dairyman can make to-day a good profit on his cows, after the cheese season is over. At the same time, through extra feeding, when all-year dairying is practised the cows are in very much better condition to start work in the Spring.

After all, notwithstanding breeds, feed plays its part in making a success of any breed, and in giving a profit to the dairyman or the feeder. In too few cases was summer feeding practised. There is a profit to be had by feeding a little grain all the year round, and when July and August, with their dry pastures and flies come along, we should increase the grain, and feed something in the line of green feed.

### HOUSES

I was pleased to find some of the houses with modern fixings, and with all the conveniences of a city house. More of this kind of thing should be found on the farm. The greatest drawback to dairy farming to-day is the

comparative impossibility of getting hired help for the house work. This being so, let every farmer spend a few dollars in making the house convenient, so that he can do the house work. It is certain that there is no better way of stirring farmers up to improve, beautify and keep their farms and homes in better condition, and making the farm more convenient for the young people, than by means of such a competition.

Some of those farmers whose farms were competing, were not aware of the competition until it was too late to compete, and quite as good farms as those competing often were to be seen in driving through some sections. I would entreat farmers to take hold and compete, and make a little special effort to win out in competitions of this kind. They will improve conditions at home, and help the community at large.

## Report of Instruction, Eastern Ontario

(Continued from page 12)

appearance of permanency about them and the improvements made in the various ways go to show that they feel confident that the future of the industry warrants the expenditure made.

Among the patrons we find equally encouraging results. Driving through the country, one cannot fail to notice the great improvement in the farm buildings and the provisions that have been made for a better housing and feeding of the stock. It would appear that these improvements are being made with a more specialising in the production of dairy products. As an evidence of this, during the past summer alone 1,070 silos were erected, and I doubt if there were ever so many new stands, with facilities for cooling the milk, erected in one season. Greater attention is being given also to the selection and care of the dairy herds and everything points to an increase in interest and further improvements on the part of those who furnish the raw material.

## Dairying in Alberta, 1909

O. Marker, Dairy Commissioner

From a climatic point of view the first half of the past summer season was very favorable to dairy operations. Frequent showers and warm weather kept the pastures in fine growing condition. In fact, up to the middle of July it was thought the dairy production for the season would reach, if not exceed, that of 1906, the largest in the history of the Province. After the latter part of July, however, the rainfall became very light indeed and, as a consequence, the bright warm weather dried up the pastures much earlier than usual, causing a heavy shrinkage in the milk yield week by week.

The farmers who had the foresight and good judgment to provide green succulent feed to help out their pastures kept their cows in good flow of milk and reaped their reward in the higher prices that they received for their butter during the latter part of the season.

On the other hand, the majority still depend almost entirely upon the native pastures for the sustenance of their dairy cows during the summer, and have to be satisfied with not only a shorter milking season but also with a smaller revenue from their dairy because the great bulk of their production is of necessity put upon the market when prices are lowest.

A demand for better dairy stock has become evident. Several local breeders of dairy cattle have during the past year shipped into the Pro-

vince from eastern Canada several car loads of Ayrshires, Jerseys and Holsteins which they have afterwards disposed of by auction or by private sale at comparatively good figures. Now that this movement has commenced it would appear that we have here a promising market for not only the local breeders of dairy cattle but also for the breeders in eastern Canada who may be looking for an outlet for their surplus stock.

In this connection I may add that the Provincial Government set aside this year a sum of \$1,000 to be used for the purpose of assisting farmers to bring in pure bred dairy cattle from the eastern province. The purchaser makes his own terms for payment. When a sufficient number of animals to make up a car load have been reported the Department of Agriculture undertakes to collect and deliver them from the nearest railway station of the purchaser at the uniform rate of \$5.00 a head.

## FOR SALE AND WANT ADVERTISING

TWO CENTS A WORD CASH WITH ORDER

A FINE CHEESE and whey butter factory for sale or to rent. Apply to B. Mettler, Odessa, Ont.

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

BARRED ROCKS—Winners at the leading shows of Canada. High grade stock at bargain prices. Write your wants—Leslie Kerne, Freeman, Ont.

FOR SALE—Good cheese factory in Perth County. Make over to sons. House and lot adjoining. Convenient to school, church and town. Good locality. Box 6, Farm and Dairy.

WANTED—CHEMISTRY—An experienced creamery man of good financial standing seeks information regarding a country that might prove a suitable location for a creamery. Address, Box 5, Farm and Dairy.

FOR SALE—Creamery for \$2600. Good building, increasing business. Very light opposition; make a maker. Western Ontario. About 200 patrons. Don't write unless you want to buy. Box D, Farm & Dairy, Peterboro, Ont.

WANTED—Sickness in the family having forced the writer to leave his farm, of which he had made a great success, is open to accept a position as Farm Manager. See of references. Box 25, Farm and Dairy, Peterboro, Ont.

## They Like This




Women deserve consideration. Their days are long enough, full enough and hard enough under the best conditions. They appreciate anything that lightens their work. They like the simple, sanitary Sharple's Dairy Tubular Cream Separator because it is a remarkable labour saver. The Dairy Tubular bowl is so free from iron parts, so light so easy to wash thoroughly clean. The accompanying picture shows all there is to it, as light, simple and easy as a 100 lb. sack. In the young woman's right hand is the bowl itself, as smooth inside as the outside, on the left hand is the tiny dividing wall—a smooth, instantly removable piece that slips into the upper end of the bowl and is used merely to guide the cream to the cream outlet—the only piece that goes inside the bowl, between the thumb and finger of her left hand is the bowl bottom, which screws into, and thus closes the lower end of the bowl. A child can clean the entire bowl perfectly in three minutes.

The handsome 1910 Catalogue of the Sharple's Separator Co. explains the principles back of the invention of Tubular Separators and describes how this remarkably simple bowl easily and thoroughly skimming force to do the work required of it. You may see this catalogue and mention this paper. Address—The Sharple's Separator Co., Toronto, Canada, Winnipeg, Canada.

# Here Are the Two Strongest Fence Locks Ever Made

The Frost Woven Fence Lock is the strongest and most secure Lock known. It will not work loose or slip. One reason is because it possesses more inches and weight of Wire than any other Lock. The principal reason is because the knot is tied in this most practical.



Note the peculiar, powerful knot. Then see the wonderful triple "Wrap" with its ends cut close. (These closely-cut ends prevent springing.) This triple "Wrap" makes the Frost Lock doubly secure.

The picture, alone, of the Frost Lock should prove that no other Lock on earth is so secure.

### Lateral Not Kinked

The Lateral is never early where Fence is kinked. This weakens it. And when subjected to great strain it snaps! It goes. Because all contraction-strain falls on the Lateral.

No other Fence Maker can make this Lock. We own the patent. And we build our Machines in our own Machine Shops.

So, you see, this wonderful Frost Lock cannot be duplicated—even imitated.

### Frost Metal Lock

The Frost Field-Erected Fence Lock permits the use of No. 7 Hard Steel Stays (or any size larger and heavier than the Lightest used in Woven Fence). These are immovably bound to unkninked coils of Lateral.

The Lock on the best other Fence made is about 60 per cent. weaker than the Wire-Frost.


But the Frost Lock is the strongest part of the Frost Field-Built Fence. Fallen trees, and other unusual tests, which have smashed other Fences to smithereens, have left the Frost un injured.

This Frost Lock is the safest Field-Built Fence Lock ever made. It is the only secure Lock which will not injure the Wire in a Field-Erected Fence.

### Make Our Own Wire

There are extreme weathering changes in certain sections of the country which mean a mighty short life to most Wire Fence.

Very little Wire is made to fight off the rust of the sun. Such Wire might do the bill in some climates, but it's simply unsafe in most conditions.



Heretofore we used ready-made Wire ourselves. But we had to make our own. We had to make our own specifications. It always gave good satisfaction, but it wanted better. The only way was to make our own. So that's what we're now doing.

We've engaged a Wire Expert with 25 years' experience behind him. And we've built special Wire-Making and Galvanizing Mills, and installed the most modern machinery made.

Through scientific Annealing, all Frost Wire is even in temper. It will stand against Canadian weather, no matter how severe.

### Two-Thirds of Its Life

Two-thirds of the life of a Wire Fence depends upon its Galvanizing. When this two-thirds is killed—out away by rust—the other third is as good as dead.

Yet nearly all Wire is Galvanized too thin, And, besides, it's merely "coated." That's a hold get it was to make it ourselves. (We pay the highest price for Zinc, and we get the best.)

But Frost Wire is Galvanized doubly thick. And it is not merely "coated," either. The Zinc goes down into the Wire, making the Galvanizing a part of the Wire itself. This prevents Frost Wire from scaling.

This is possible only by the Frost "Pickling" and "Cleaning" process. It simply soaks Frost Wire of every particle of grease and scale, leaving it as clean as a pin.

Frost Galvanizing will now stick to the Wire thick and thin. No Galvanizing comes off when you try to twist the Fence will last 12 to 15 years longer than most others.

Send for Free Booklet and Samples.

The Frost Wire Fence Co., Limited  
Hamilton, Ontario

Agents Wanted in Open Districts

# "Frost" Fence

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



**OUR FARMERS' CLUB**  
Contributions Invited.

**QUEBEC**  
L'ISLET CO., QUE.

**L'ISLET**—Never since many years was so much fall plowing done as last year. Threshing is all finished. There was much straw but below average of grain and this was of poor quality due to the wet season. We saw signs of discouragement among farmers here and several young men are looking to the west for next spring. There is sufficient food for stock and some stock is in good condition. Farmers of this county are proud to have elected the first Minister of Agriculture in this province who is a real farmer, the Hon. J. E. Caron. We hope this precedent will be followed in future. Pork worth 11c; pork, 10c; beef 7 to 8c; butter 25c; bran \$1.40. Hauling in stone wood is the work of the day. Since two weeks ago the weather has been very cold from 0 to 12 below.—A. F.

**ONTARIO**

**GREENVILLE**—Butcher cattle are scarce and almost any kind of beef sells for a fair price. The general opinion of the farmers here is that cattle will be very high in the spring and some are thinking of disposing of their herds. Timothy hay, \$15 to \$16 a ton; oats 40c a bus.; corn, 75c a bus.; straw, \$2 a ton; fresh eggs 40 to 45c a doz.; butter 25 to 30c a lb.; turnips 30c a bus.; potatoes, 50c a bus.; milk cows, 75c a lb.; calves, 10c a lb.; chickens 15 to 16c a lb.; hides 10c a lb.

**HASTINGS CO., ONT.**

**CHAPMAN**—The weather has taken a sudden change for the worse and as a result wood is in good demand at \$4.50 to \$5.00 a cord. Seed clover is turning out a fair crop and of fair quality. The amount on hand is not large but it gives promise of bringing a fair price. Straw is in good demand at \$1.50 a ton, and beef cattle sell for good prices. Hogs continue at 8c a lb. and are very scarce.—H. T.

**PETERBORO CO., ONT.**

**SMITH TOWNSHIP**—A very successful dairy meeting was held in Zion School House on Dec. 27, towards the formation of a Farmers' Club in this vicinity. Mr. J. H. Garbutt, president of the West Peterboro Farmers' Institute and others pointed out the object and benefits of the club in a very interesting manner. The following officers were elected: President, Henry Stuber; vice-president, J. H. Garbutt; sec-treas., G. N. Milburn. Directors—O. Graham, G. Mann. Auditors—B. Mann and H. Allan. The next meeting will be held on Jan. 20, when Mr. Duff of Norwood will be present. Mr. Gordon Mann and J. H. Garbutt will also address the meeting. The club has a membership of 25.

**DURHAM CO., ONT.**

**SOLINA**—Stock is wintering well and selling high. Hogs at \$8.75; lambs 65c; fat cattle \$9.00 to \$10.00 a cwt. The horse market is fairly active. Distemper is very prevalent amongst the horses, some having died from the effects and others from other causes as astoria, colic, etc., while there is a general complaint of brood mares not being in foal. Bowmanville held a very creditable Christmas Fair, \$100 being given in prizes. Clover seed sold here at \$9.10 a bus., but has dropped from \$8 to \$8.50.—J. B.

**FLEETWOOD**—We are having great sleighing in this vicinity now, threshing is about completed with the exception of some clover seed. The farmers have been exceptionally well owing to the good price of cheese and a number of our shrewd farmers have been from 10 to 15 bushels of clover seed, which will help add to their bank account. Good heavy horses are in great demand, and the prices paid are very large. Fodder is going to hold out well, owing to the late fall, and to having taken care of it.—A. G.

**BRANT CO., ONT.**

**FALKLAND**—The weather has been quite cold lately with strong winds and some storms. There has been fair sleighing for some time and this makes it easy to get around, especially for those who have teamsing to do. The demand for live hogs is good, \$8.25 being the price offered by buyers. The trade here has been exceptionally good. Fine, clear water, first-class sleighing and good prices for farm products all combined to give

merchants in town the best Christmas trade of several years. There was an abundance of poultry supplies and towards the close of the Christmas market prices fell off, turkeys dropping from 25 to 18c a lb. and other fowl in proportion. While \$1.00, bran 55c, middlings 55c; hay \$13 a ton; a bag; butter 25c; eggs 35c and scarce.—T.

**ELGIN CO., ONT.**

**YARMOUTH CENTRE**—The writer met in the person of Mr. Wm. Rockey, of this place the greatest enthusiast on the subject of deep plowing. He has at any other time run across. Mr. Rockey says, "I got right down eight inches every time, and then the gold mine, and I always get splendid results from deep plowing. There are many more farmers like myself around here, that are out and out advocates of deep plowing. We believe in going down among the angle worms for they know where the rich land is."—I

**A Great Premium Offer**

For a number of weeks Farm and Dairy has offered through its advertising columns seed of the "O.A.C. No. 21" barley in return for new subscriptions taken each at only \$1.00 a year. The response has been so great that the offer has been gratifying. In the offer has been gratifying. In a retail way seed of this good barley readily realizes \$1.25 a bushel. The substantial nature of this premium is evident and explains in part its popularity.

The stock from which the seed offered was grown, came direct from the Experiment Department of the Ontario Agricultural College in the spring of 1907. A fair sample of the seed offered by Farm and Dairy was exhibited at the Guelph Winter Fair last month where it won a high place. It took third. Had it been threshed more closely experts said it would have won a higher place.

The returns from a two bushel lot of "O.A.C. No. 21," as offered elsewhere in this issue would probably next season all the seed barley required on the average farm and could leave considerable for sale. Figure out what an increased return you would get from the acreage that you devote annually to barley if you grow this variety, which has yielded as high as eight bushels per acre more than the Mandschouri variety. Then ask yourself if you can afford to be without it!

It would require but little effort to get four of your neighbors to subscribe to Farm and Dairy. You could then possess yourself of seed of this great barley. It is offered as a premium this week for the last time. If you would secure your share prompt action is necessary. Orders will be filled until the supply is exhausted.

ventured to remark that some authorities recommend shallow plowing in many cases. He replied "I have no patience with any theory of that kind. For instance I plowed my corn ground deep, and got from nine acres 900 bushels of splendid corn. I had it tumbled by the Indians and paid them \$45.00 so there is no mistake about the quantity. Had also fine oats and all other grain was good. So my motto is plow deep and don't consider your seeding done until you have at least gone seven times over the land with different implements." Mr. Rockey plowed with three horses and turns the land over first. He also rolls his land with a roller. He recommends rolling fall plowing, thinking it better to neck it thus, than having it run together by storms of rain and snow.—J.E.O.

**BRUCE CO., ONT.**

**WALKERTON**—The holiday season being over we are getting down to work once more. Quite a number are hauling out manure, the snow being only about

**LIVE HOGS**

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

THIS WEEK'S PRICES FOR HOGS DELIVERED AT FACTORY

**\$8.25 a Cwt.**  
FOR HOGS WEIGHING 160 TO 220 LBS.

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

a foot deep. Despite the fact of coarse grains being high in price most farmers are feeding a number of cattle for export. As high as 5c a lb. is being paid for butchers' cattle for present delivery. Hogs are \$6.00 a cwt, butter 25c; eggs 25c; potatoes 40c a bag; hay \$10.00 a ton; oats 40c a bus. Live stock of all kinds are in good healthy condition and there is plenty of fodder to carry them through till the month of May.—A. L.

**R. B. MARTIN'S HOLSTEIN SALE**

The unreserved dispersion auction sale of 30 pure bred Holstein cattle on Friday, December 31st, held at the Beaver Meadow Stock Farm, Elmira, was quite successful and proved satisfactory to the proprietor, Mr. R. B. Martin. The cattle sold, buyers and prices follow:

Cows—Queen's Daisy Bell, W. Rife, Hepler, \$112.50; Lily F. Bagg, Weston, \$82.50; Duchess Irene De Kol, C. G. Gies, Heidelberg, \$75; Beauty of Beaver Meadow, O. R. Gies, \$65; Verma May De Kol, W. T. Whislo, Galdston, \$125; Winnie E's Countess, C. R. Gies, \$177.50. Heifers—Maid of the Meadow, J. Bagg, Weston, \$115; Fletjerte Helen 2nd, Thomas Marshall, Pontland, \$92.50; Black Rose Clothilde T. Trebilcock, The Grove, \$100; Good De Kol, Bert, J. Markie, Hepler, \$100; Lady Lizzie Abbecker, Andrew M. Zellar, New Hamburg, \$75; Lilly Diotme, F. Bagg, Weston, \$57; Fatton Lassie, Jas.

Meyers, St. Clements, \$47.50. Heifer calves—Lady Elmira, Abbecker, W. Rife, Hepler, \$47.50; Matchless Abbecker, Chas. Martin, Clifford, \$47.50; Lady Abbecker Diotme, W. Shado, Listowel, \$25.

Bull—Diotme Sir Abbecker, J. J. Fox, Morden, \$70. Calves—Queen's Diotme De Kol, W. T. Hamby, Drayton, \$30; Sir Hengerfeld Payne De Kol 2nd, Chas. Martin, Oxford, \$30; Prince Abbecker Diotme De Kol, Peter Kines, Listowel, \$18; Lord of Patton, Jos. Furwell, St. Clements, \$16.

**PLEASED WITH THEIR FIGS**

I received the pig which you sent me for securing seven new subscriptions to your valuable paper. The pig was sent to me by Mr. Joshua Lawrence of Oxford Centre, and I am much pleased with it, and feel well paid for my efforts. Geo. Thompson, Bruce Co., Ont.  
I received the pig which you sent me for securing seven new subscriptions to Farm and Dairy. The pig came from Messrs. Featherston & Son, Streetsville, Ont., and must say I am well satisfied with it.—F. H. Richards, York Co., Ont.  
I received the pig yesterday, for securing seven new subscriptions for Farm and Dairy and am well pleased with it. The pig was shipped to me by Mr. Joshua Lawrence, Oxford Centre, Ont. Please accept thanks.—Willie L. Sweet, Essex, Ont.

**START RIGHT NEXT SPRING**

**USE THE HAMILTON**

**Elastic Cultivator**

The easiest working, most satisfactory and successful Cultivator made.

**Leader Drill**

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

See Nearest Agent

**THE PETER HAMILTON CO., Limited**  
PETERBOROUGH, ONT.



FARM AND DAIRY

MARKET REVIEW AND FORECAST

Toronto, Monday, January 10.—The reduction in the Bank of England rate from 4 1/2 per cent. to 4 per cent., means that there is likely to be a money market for some time to come and that funds will be easier to obtain for speculative purposes...

In New York there has been some uncertainty in regard to the outcome of the President's message, which has had an unsettling effect on certain stocks and bonds. In Canada signs are multiplying that the coming season will witness a wide expansion in all branches of commerce...

WHEAT

The Argentine seems to act as a pendulum in the wheat market. So long as that pendulum works smoothly everything goes well, but the least irregular movement causes a quiver to run through the world's exchanges...

COARSE GRAINS

Oats show a slight tendency to higher prices: No. 2 westerns selling at 40 1/2c on track, and No. 3 at 39 1/2c; Ontarios are quoted at 36c to 37 1/2c for No. 2 quality at point of shipment...

Do you trap or buy Fur? Lam Canada's Fur Sales Dept. I pay highest prices, your nation's solicited. I pay mail and express charges sent free. BeesHides, Sheepskins, etc. Quotations and shipping table free.

JOHN HALLAM, TORONTO

DISPERSION SALE OF OVER 40 HEAD HOLSTEIN-FRIESIAN CATTLE AT MADOC, MARCH 25th, 1910

Including the great bull, SARA JEWEL HENGERVELD'S SON, whose dam has an A.R.G. butt record: In 7 days of 20.12 lbs. In 30 days of 10.18 lbs.

and the only cow in Canada that ever produced in official test one hundred pounds of milk in one day. All the females old enough to breed are in calf to this great bull, and by the time of the sale there will be 29 calves sired by him.

Catalogues will be ready by March 1, 1910. Positively no reserve. Further particulars later.

J. A. CASKEY - Madoc, Ont.

In Montreal the market is quiet in these cereals, prices being for wheat 30 1/2c for rye, 6 1/2c for 70 and peas, 9c to 11.15, according to quality.

HAY AND STRAW

The market is very light both in Toronto and Montreal but a fair price is being maintained. There is no change in the farmers' market as prices varying from 81c to 82 1/2c and wholesale in car lots at 81c to 81 1/2c, first quality.

In Montreal prices prevail: Clover hay, 39 to 41c, lucerne, 38 to 39c. In Montreal prices run firm, 110 to 113.50 according to quality. Straw on the local market sells at 37.50 to 38 a ton in car lots...

POTATOES AND BEANS

There is no change in prices of last week's quotations, for both of these commodities. The 45c to 50c bag in car lots on the track, and 45c to 50c out of store. On the farmers' market potatoes sell at 50c to 60c per bag.

EGGS AND POULTRY

Prices are getting easier all the time and eggs are now quoted on the local market at 36c in case lots and 35c to 40c a dozen for strictly new laid. On the local farmers' market eggs are quoted at 40c to 45c for new laid and 30c to 35c for storing to the market.

FRUITS

As stated last week the trade is practically at a standstill in most qualities of fruit. English buyers are still lamenting the bad state in which a quantity of last season's apples have been presented on shipments have arrived in good order but the prices have been affected by the condition of the earlier shipments.

On the local market the following quotations are given: Apples, a bbl., 25.50 to 33.50; winter apples a bbl., 32 to 25.50. On the farmers' market apples are quoted at 15.50 to 25.50.

DAIRY PRODUCTS

There is a movement on foot in New York...

York press for the lowering of the duties on Canadian dairy products, in order to take advantage of the present abundance in this country. If this is realized, there are good times ahead for the Canadian dealers in these specialties. The local wholesale market for butter is steady and the demand for butter is active.

SEEDS

Outside quotations for seeds are: Alsike, 85.25 to 86.25, and red clover, 55.50 to 58.25, according to quality; timothy, 18.40 to 18.60.

FEDS

The market continues firm at last week's quotations. Manitoba shorts at 82 1/2 to 84 a ton on track; Ontario bran at 82 a ton and shorts at 84, bags included. In Montreal and Toronto shorts at 82 to 84 a ton on track; live and dressed at 83 a ton on track.

HORSE MARKET

Sales are going briskly in the local market, the Northwest claiming the greater shares of purchases. Nearly 300 more horses were sold at the Depository during 1909 than in the preceding year. Prices rule at about the same figures as last week. Express horses 815 to 825 and 1810; farm horses, 815 to 820; and serviceable sound horses, 810 to 875.

LIVE STOCK

Trade has not been very brisk in cattle the past week, and prices asked are higher than many buyers care to pay. There has been no shortage of offerings, as on Thursday and Friday, 151 car lots and lambs, 124 calves and 1200 sheep and calves. Butchers' cattle went as high as 85 cents per pound for steers and feeders, prices made for stockers and feeders, prices ranging from 22.50 to 35.50. Following are the quotations: Exporters, medium to heavy, 45 to 65; bulls, 35.50 to 45; butchering cattle, 22.50 to 35.50; heavy feeders, 22.50 to 35.50; stockers, 22.50 to 35.50; medium to heavy, 45 to 65; bulls, 35.50 to 45; butchering cattle, 22.50 to 35.50; heavy feeders, 22.50 to 35.50; stockers, 22.50 to 35.50.

MONTREAL HOG MARKET

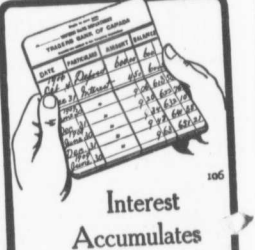
Montreal, Saturday, January 8th.—The market here for live hogs opened increased an easier feeling, and prices were increased during the first part of the week, but there was no actual decline in prices, sales being 1425 at 14 1/2c. The Trade Bulletin's market cable says: 'The arrivals and a fairly even demand. It only needed a big import and large stockings to send down quotations. Finest unchanged, Canadian bacon, 61c to 62c.'

PETROBORO HOG MARKET

Peterboro, Monday, January 10th.—Demand for hogs in England last week were 22,000. The demand for bacon is only fair. The deliveries of hogs at the local market are very light. The Geo. Matthews Co. quote the following prices for this week's shipments: f. o. b. country points, 32.5c a cwt.; dressed off cars, 36.00 a cwt.; delivered abattoir, 48.25 a cwt.

EXPORT BUTTER AND CHEESE

Montreal, Saturday, January 8th.—The tone of the market here for cheese is decidedly improved. The demand for cheese has been of sufficient proportions during the past few days to clear up all the Quebec and Township cheese offering in this market at from 11c to 11 1/2c in a lb. for twins.



Interest Accumulates

every hour, day and night, on your deposits in the Savings Bank Department of the Traders Bank. In time the interest amounts to as much as the original savings, thus doubling your saving power.

The money is not tied up either, for you can draw out what you want at any time without delay or bother. A Bank Pass-Book is a first-class start on the road to independence, if not wealth.

THE TRADERS BANK OF CANADA

Capital and Surplus \$6,350,000

Whatever there is left here unused of this class of goods is being held for more money. Finest Ontarios are firmly held, quotations on this class of goods ranging from 11 1/2c to 14c. Holders have been looking forward confidently to a renewal of activity with the advent of the New Year and the active demand for this class of goods has encouraged them to put prices up on the balance of their stocks, which consists almost entirely now of Ontario cheese.

The stocks of cheese in store in Montreal at the beginning of the year amounted to about 175,000 lbs., the quantity being practically unchanged from that in store here at the close of navigation, as the shipments during the month of December were very light, and practically the same as the receipts into the city. The total stock in all Canada is estimated to be a little under a quarter of a million boxes. Stocks on the whole are encouraged by a substantial reduction during the month, the total stock

You Can't Cut Out A BOB SAVIN, PUFF OF THOROUGHPIN, but ABSORBINE

will clean them off permanently, and you won't be horse same time. It's the best blotter or eraser in the world. It will tell you more if you write, 50c per bottle. The name is ABSORBINE, JR., for marks. It's the best blotter or eraser in the world. It will tell you more if you write, 50c per bottle. The name is ABSORBINE, JR., for marks. It's the best blotter or eraser in the world. It will tell you more if you write, 50c per bottle. The name is ABSORBINE, JR., for marks.

FOR SALE AND WANT ADVERTISING TWO CENTS A WORD CASH WITH ORDER AGENTS make big money selling 'Vni Peak' Granite Cement. Mendos Hols. Granite ware, iron, Agate, Tinware, etc. Mendos a hole in one minute. Every household buyer. Greatest seller on the market. Agents make over 100 per cent profits.—M. Magie, Westmont, Que.

in store in the three great centres, London, Liverpool and Bristol, being estimated at 300,000 boxes.

The market for butter this week is steady with prices unchanged from last week. There is a good demand from all sources, except for export, the demand from the United States having fallen off during the past two or three days, owing to the decline in prices current there for creamery. The stocks in Europe are being steadily reduced, the demand being chiefly for finest June and September made goods, and the supply of fresh made is dwindling very rapidly.

Fancy June made creamery is selling at 35c a lb. in solids, prices commencing September 1st, and is quoted at 35½c with a small quantity of fresh receipts offering at 25c a lb. Dairy butter is quoted all the way from 19c to 21c, according to quality.

The Directors will meet in the parlor of the Walker House on Tuesday, January 25th, at 10 o'clock a.m.

Please allow us to remind you that the annual member's fee for 1910 is now due. A prompt remittance to the Accountant, National Live Stock Records, Ottawa, Ont., or to the secretary-treasurer, will be esteemed a favor. May we ask those who have not yet paid the member's fee for 1909, to kindly remit at once.

As the manager of the Walker House has extended us the use of the parlor free of charge, we ask that breeders put up at this hotel, if possible.

W. W. HALLANTYNE, President, Stratford, Ont.  
W. F. STEPHEN, Secy.-Treas., Huntingdon, Que.

**CENTRAL SMITH FARMERS' CLUB**  
The Central Smith Farmers' Club will hold their next meeting on Monday evening and C. A. Zavitz of the Ontario Agricultural College, Guelph, will be present and address the gathering. The meeting is for farmers and farmers' sons. Ladies will be invited to the meeting in February at which time poultry subjects will be dealt with.

**ANOTHER HOLSTEIN DISPERSION SALE**  
Mr. J. A. Caskey announces in this issue a dispersion sale of 40 head of Holstein-Friesian cattle, on March 25, 1910. The great bull, Sarah Jewel Hougervold's son, whose dam has an A. R. O. butter record for seven days of 32.12 lbs. and 110.18 lbs.

in 30 days, is included in the offering. Anyone wishing to secure foundation stock or to add to their stock of Holsteins should keep the date in view and attend Mr. Caskey's sale.

The dates for the annual meetings of British Columbia Live Stock Associations, Agricultural and Dairymen's Associations, have been announced. The Agricultural Association meets on January 31st. A representative from each agricultural society in the province will be a delegate at this meeting. The Central Farmers' Institute is to meet in Victoria on February 1 and 2; the Dairymen's Association, February 3; and the Live Stock Breeders' Association on February 4, making in all a good week of agricultural meetings.

**HOLSTEIN-FRIESIAN BREEDERS' ASSOCIATION ANNUAL MEETING.**  
St. George, Jan. 8, 1910.  
The annual meeting of the Canadian Holstein-Friesian Association will be held in the Temple Building, Toronto, on Thursday, February 10th, 1910, at 9 o'clock a.m.—G. W. Clemons, Secretary.

**AYRSHIRE NEWS**  
Farm and Dairy is the official organ of The Canadian Ayrshire Breeders' Association all of whose members are readers of the paper. Members of the Association are invited to send items of interest to Ayrshire breeders for publication in this column.

General sympathy will be felt by Ayrshire breeders and by the many friends of Mr. W. F. Stephen, both in Canada and the United States, over the death of Mrs. Stephen, which occurred last week.

**CANADIAN AYRSHIRE BREEDERS' ASSOCIATION ANNUAL MEETING**  
The annual meeting of the Canadian Ayrshire Breeders' Association will be held in the parlor of the Walker House, Toronto, Ont., on Wednesday, January 26th, at 10 a.m., to hear reports of the president, secretary-treasurer, registrar, Record of Performance, Test work, and of committees; also for election of officers, and for transaction of any other business that may properly come before the meeting. All interested in the breeding of Ayrshire cattle are cordially invited to attend as matters of deep concern to Ayrshire breeders will be under consideration. We beg to give notice that amendments to the constitution may be considered and adopted.



**ROCK SALT for Horses and cattle, in tons and carloads.**  
Toronto Salt Works, Toronto.  
G. J. CLIFF, Manager

**LAKEVIEW STOCK FARM**  
WANTED.—A few fresh Holstein cows or heifers coming in shortly. State breeding in first instance and price.

**R. F. OSLER**  
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**SEED PEAS**  
Being one of the largest growers of seed peas in Canada I am desirous of placing seed in good pen-growing sections free from Weevil or Fly Bug, at 1 supply the seed and contract with farmers for the product, during the season supplied when crops delivered. Prefer growing in places where a crop-by-crop of seed could be placed. For particulars, address:

**W. P. NILES, Wellington, Ont.**

**Dr. Bell's Veterinary Medical Wonder** cures all kinds of ailments of dogs, cats and horses. The only country wonder. Agents wanted everywhere. Write for a free trial bottle. This offer only good for 30 days. Limited to 500 bottles.

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

# EATON'S

## JANUARY AND FEBRUARY SALE

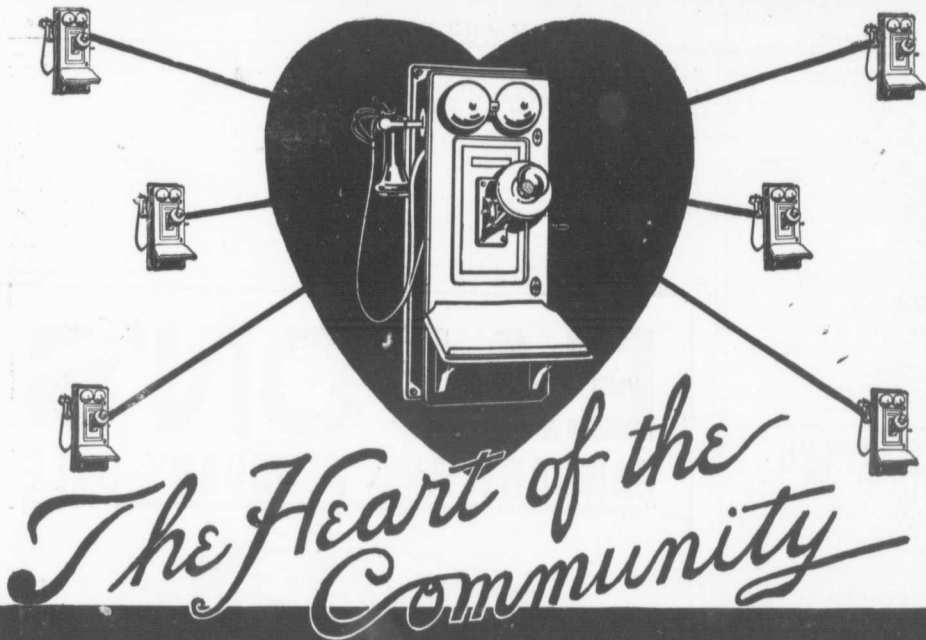
**OUR JANUARY AND FEBRUARY SALE** is the greatest value-giving event in our history. Every item will interest you. Every style will please you. Every price will surprise you. Get a copy of our Catalogue at once as this Great Sale will positively end on February 28th.

**Satisfaction Guaranteed**  
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# The Heart of the Community

## OUT OF 259,000 PHONES IN USE IN CANADA, 250,000 ARE MADE BY US

**D**ON'T you think that fact almost speaks for itself? There hardly seems to be much left to say. No better evidence could be demanded—or given—of the absolute perfection of every instrument turned out by us. For a long time past we have had our best engineers at work on the problem of designing a more powerful Farmers' Line Telephone. And now we have it. The work was completed months ago, although it is only now that we are offering it to you. The interval has been devoted to "trying out" these new sets under the most exacting conditions it would be necessary to meet anytime—anywhere.



### SEND FOR OUR FREE BOOK

**A**LL you have to do is to ask for Bulletin No. 1516 and we will mail you FREE, at once, the full story of farm telephones. Asking for the book places you under no obligation—don't hesitate to tell us you want it. We are anxious that you should be posted on the value and economy of farm telephones. A post card will bring it.

Watch for the other advertisements of this series. They have a story to tell you.

represents the attainment of perfection in telephone construction. Go over it point by point—prove it for yourself by comparison with any other instrument you like.

Take the transmitter—into which you talk—you will find it the standard long-distance type.

Then there is the receiver—the earpiece: it is simply perfect—never will you be bothered by local noises to spoil transmission. The result of long and careful study, it is the best possible construction and combination for the purpose.

The generator has also been well worked out—so well, in fact that this generator is stronger than any other telephone generator on the market. Observe how easily it turns. It will ring more telephones on a longer line than any other 6-bar generator made today. Thousands of these generators are now operating on lines more than 30 miles long with as many as 40 telephones on the same line.

The ringers and gongs are unusually efficient. Our new type 38 ringer is not only very sensitive, but very strong and operates on from only one-third to one-fourth the current ordinarily required. The extra large brass gongs produce a volume of noise fully half as great again as gongs on other sets. You'll never fail to hear this telephone when it rings. The switch hook makes all contacts on the best grade of platinum points—that makes for efficiency.

Taken as a whole Set No. 1317 is an extremely handsome instrument. The woodwork is of quarter-sawn oak of finest quality and handsome finish. And in point of service this telephone is unsurpassed—more than \$10,000 was put into it in engineering expense alone before the first instrument was made. Would you like to know more about it? The space here won't permit us to tell you, but if you will write, we'll gladly give you any information you may desire.

### OUR NEWLY DESIGNED NO. 1317 TYPE TELEPHONE SET

# THE NORTHERN ELECTRIC AND MANUFACTURING CO. LIMITED

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

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