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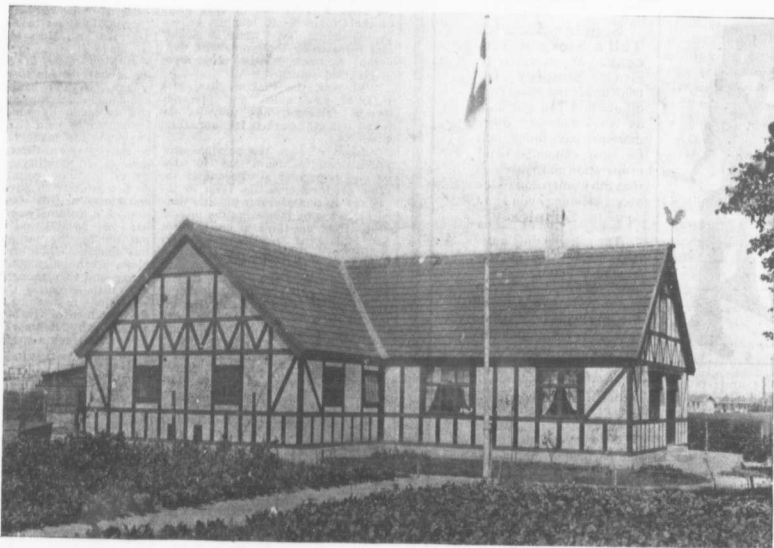
FARM AND DAIRY

AND

RURAL HOME

PETERBORO, ONT.

MARCH 11 1909



A MODEL FARM HOUSE IN A COUNTRY FOR WHICH CO-OPERATION HAS DONE MUCH
Co-operation has been extended to every line of agricultural effort in Denmark. There are co-operative cow-testing associations, co-operative breeding associations, co-operative creameries, co-operative butter-selling associations, co-operative egg export associations, co-operative pork packing associations, co-operative insurance associations, and numerous other organizations of a like nature. There are many lessons for Canadians in the successes of Danish methods.

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WE WANT AGENTS FOR A FEW UNREPRESENTED DISTRICTS

Good Roads Suggestions

The Ontario good roads system, the results it has produced, the cost of putting roads in proper shape, the machinery necessary to do the work at the least possible cost, these were some of the questions discussed at the Seventh Annual Meeting of the Ontario Good Roads Association held last week in Toronto. The meeting was honored by the presence of His Honor, the Lieut.-Governor, Hon. J. M. Gibson, who in the course of his address remarked that every mile of good roads constructed by municipalities is an object lesson to the other municipalities to do the same thing and thus give the people ideal highways.

In the course of a brief address on "What Country Roads Have Accomplished," Mr. A. W. Campbell, Deputy Minister of Public Works, said that the improvements in roads, bridges and culverts had been something marvellous. Mr. Campbell declared that there was too much taxation at the present for road improvement purposes. In his opinion there was a heap of carelessness and unnecessary waste, which comes from so many causes, in the expenditure of money for road improvement in some parts of the Province. He did not believe in expending large sums of money and threatening the people with dangerous taxation until they were given good returns.

"Whereas, the Province has, with a lavish hand, aided our privately owned railways which provide the long haul to market for our farm products;

"Resolved, that the province now provide more liberal aid for the equally important short haul of the same products from the farm to the highway by increasing the present grant from one-third to one-half the cost for good roads under county system."

This resolution was moved by Mr. J. F. Bean of Welland at the close of his address on "The True Solution of the Good Roads Problem." The resolution was carried.

"The first and foremost piece of machinery in road building is, in my estimation, a good, intelligent man, a man with brains," said A. J. Davidson, superintendent of streets, Galt. One of the most important features in good road work is good drainage.

Papers were also read by Reeve G. L. Telfer, Paris; Messrs. G. W. Bennett, Peterboro.; W. D. Annis, Scarboro.; J. D. Evans, Lexington; Jas. A. Bell, county engineer of Elgin; Charles Talbot, county engineer of Middlesex; Frank Barker, county engineer of York; C. H. Hicks, Humber; R. H. Jupp, Simcoe; J. W. Gage, Warden of Wentworth county; R. E. Taylor, Picton; A. McEwen, Rankin; Colin's Bay; W. B. Rittenhouse of Beausville and others.

K. W. McKay read the auditors' report, showing that a balance of \$233,077 remained. The receipts of last year were \$305,93, and an expenditure of \$72,86. He moved that the secretary, Col. J. E. Farewell, be presented with \$50 in recognition of his services. Officers were re-elected.

Farming in the Yukon

Some interesting information on agricultural conditions in the Yukon valley is presented by Major W. P. Richardson, president of the board of road commissioners for Alaska. He states in his annual report, that the permanent population is increasing every year, that more families are locating in the country and the cultivation of gardens and fields gives evidence of fixed habitation. Repeated experiments have shown that splendid crops of barley and oats farmers have not known of a crop failure.

There is a general campaign for more agricultural development in the interior of Alaska. The experiment station at Kodiak has developed a hardy breed of cattle that stand the climate and thrive on the native grass. The animals are being introduced into different sections and are proving valuable acquisition to the farming districts. Grasses grow to perfection, and all the ordinary vegetables produce excellent crops. The original ideas of the farmers are gradually disappearing and farms are taking the places of what was formerly thought to be barren glacial deserts.

Dairying Abroad

The fact that our Canadian cheese and butter factories are very inferior to many of those in such Danish countries as Denmark, Holland and France, was clearly shown by Dairy Commissioner J. A. Ruddick at the recent conventions of the Eastern and Western Dairymen's Associations. Illustrations of dairy scenes in other countries were shown on a large screen by means of stereopticon views.

In Holland and Denmark, the farmers nearly all own their own dairies. They build them in a most substantial manner. Most of the buildings are made of stone or brick and cost many thousands of dollars. When the farmers decide to erect a factory, they go to their banker and give a joint note. Arrangements are frequently made by which these notes are not to be paid back for 50 years. Payments are made on them yearly. So convinced are the banking institutions of the stability of the dairy industry in those countries that they do not hesitate to advance the farmers money in this way. An illustration of a creamery in Holland that had cost \$50,000 and that had been put up by the farmers themselves, was shown. When one looked at the views of these creameries that were shown and then thought of the miserable little factories that are located in sections in Eastern Ontario and in the Province of Quebec, it helped to explain why Denmark and Holland have made such a success of dairying.

COWS IN THE HOME

In Holland, the farmers frequently keep the cows in their own homes. Mr. Ruddick showed a diagram of the floor plan of a farm house which had a bedroom, living-room, dairy and the cow stable all on the one floor. Mr. Ruddick explained that the cow stable was kept so scrupulously clean that there were never any objectionable odors.

In Denmark, every package of butter has to be branded before it is exported. The brand does not discriminate between the different grades of butter, it being used on all grades. Some years ago, Denmark found that their cows were exporting butter to Great Britain as Danish butter. To prevent this, Danish butter is now branded.

An illustration was shown of a factory in New Zealand that made 140 cheeses in a day. Another illustration showed a scene on a rough farm from which 8,000 lbs. of milk a day was sent to the factory.

Recently Japan has commenced to manufacture dairy products. A farm in Japan was shown where 140 Ayrshire cows were kept. Most of these cows were purchased in Canada, and Mr. Ruddick stated that he had received word that they were doing well in Japan.

Putting up Silos.—The shortage of hay and straw the last two years has forced the farmers in this section to raise more corn. Silos are being put up on all sides. One man has erected 15 silos for farmers living within a few miles of Howick.—Hector Gordon, Chateauguay Co., Ont.

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FORMERLY THE CANADIAN DAIRYMAN AND FARMING WORLD

Vol. XXVIII.

FOR WEEK ENDING MARCH 11, 1909.

No. 10

ORGANIZING AND INSTALLING A RURAL TELEPHONE SYSTEM

C. F. Hardy, Victoria County, Ont.

The Work can be Done by the Patrons themselves, and the Whole System Installed at a Very Nominal Cost. The Telephone has become a Very Necessary Part of the Farm Equipment With the Most Progressive Farmers in Victoria County

It is a simple matter to organize a rural telephone company, and to install the line. The main thing necessary is to get 10 or 12 men who want to have telephones in their homes; the rest is easy. A brief outline of how one telephone company was organized, and the satisfaction that it is giving its patrons will be of interest to those who contemplate organizing for this purpose in the near future.

The Oakwood Telephone Company, in Victoria County, Ont., was organized in the spring of 1908.

At that time, there were not more than two or three other similar companies in operation in the township of Mariposa. It was started by one or two farmers making up their minds that they would like to have telephones in their homes. They took half a day off and went around the neighborhood and canvassed 15 or 20 other farmers. They succeeded in obtaining promises from eight or ten that they would go in with them in the formation of a telephone company.

CALLING THE MEETING

An organization meeting was then called. Several farmers who had turned down the proposal when first called upon, as well as those who had signified their intention of installing phones, were on hand to see what would be done: The expression of this meeting was unanimous in favor of going ahead with the formation of a company. The company was organized. Officers were elected. A set of By-laws were drawn up, and a committee appointed to look into the cost of securing and installing the phones and of building the line.

In forming the by-laws, many helpful suggestions were secured from a draft of a set of by-laws, which was secured from a company engaged in the manufacture of rural telephones. Such a draft may be obtained free of charge by writing any company that manufactures phones, as well as much valuable information regarding installing and operating the line. The telephone supply firms, that are regular advertisers in Farm and Dairy, will be pleased to furnish this information free of cost on request.

After the company had been organized, the questions of deciding on the kind of telephones, whether to have a single line with ground return, or a double metallic line, and the matter of connections with the Bell line, came up for considera-

tion. Good phones, of a reliable make were installed.

A DOUBLE METALLIC LINE

It was decided to use the double metallic line. The cost was greater, there being two lines of wire to pay for and string. The total extra cost was increased by about \$10.00 a mile of line. The service, however, with the double line is much superior to the single line, as is shown by the fact that practically the only single wire lines are those

evenly among the different patrons. Some of the patrons, however, who were situated at some distance from the main line supplied their own poles.

COST TO EACH PATRON

The total cost to each patron was between \$35 and \$40. The cost to some was slightly greater than to others, and they had a greater number of poles to supply and erect. This amount included everything, and was the sum total of what each man had to pay out to secure workable telephones in his home. As stated before, however, there was considerable work done by the patrons themselves, which, of course could not be very well included in the above. The line is now owned by the patrons, and of course the only additional expense is for switching and for necessary repairs. Everything being new, the expense for repairs for several years, will be very slight.

INTERSWITCHING ARRANGEMENTS

Mention was made of switching expenses. No switching is required to connect the patrons of each company, but there are at present, several other similar companies all connected with the one switchboard at the village of Oakwood. To secure communications with any patron of one of the other companies, it is necessary to pass through the "Central" at Oakwood. This is the switching referred to. A fixed rate per year for switching has not been decided upon. It is estimated that the cost will not exceed between \$2 and \$3 a year for each patron. Some of the companies have line charges for patrons of the other lines over their own lines, but it is proposed to do away with them at an early date, thus giving the patrons of each company free access to any of the patrons on every line connected with the main switchboard. In time, it is expected that this arrangement will broaden by the means of trunk lines connecting the different "centrals," so that the farmers can speak to any part of the township, or even over a wider area.

POPULARITY OF PHONES

The popularity that the rural telephone is acquiring is shown by the rapid growth made during the past two years in the vicinity immediately surrounding Oakwood. Two years ago, not more than 12 or 15 phones were in connection with Oakwood. Now, there are over 60. Several new lines are being planned for next year. It is expected that there will be over 100 telephones in this district before the end of 1909. Farmers are finding that the telephone has passed beyond the experimental stage. It forms a necessary part of the farm equipment, and is of inestimable value as a convenience, both from a business and social standpoint.

Immediate Action Needed to Save the Bacon Trade

If evidence were lacking before, recent returns of British Bacon imports, as shown in the table, should impress upon all the critical state of our Export Bacon Trade. For the month of January, 1909, British imports of Canadian Bacon were practically a half less than for the same period in 1908. They were considerably less than half the imports for January, 1907. As farmers, we ought not to let the trade go like this. If we do, we shall have reason to regret it. The day is coming when we will realize that we have lost a good business, and one of the best assets of the farm.

BRITISH IMPORTS OF BACON				VALUE OF IMPORTS £					
In the first Month of				1909	1908	1907			
Denmark,	cwts.	148,002	155,061	116,371	£405,698	£436,738	£332,074		
United States,	"	237,515	246,159	220,445	564,902	649,688	585,080		
Canada,	"	34,712	69,677	84,867	94,000	178,470	225,733		
Other Countries,	"	4,639	6,097	7,996	11,767	16,965	21,214		
Total,				424,968	476,394	429,340	£1,074,727	£1,256,807	£1,164,121

In the face of the foregoing statistics, the Dominion Government should not deny our farmers, and others concerned, the information relative to this industry that could be gained from an investigation made at first hand, in Denmark, by a reliable commission of Canadian farmers, as has been suggested by Farm and Dairy, and endorsed by leading farmers and the Dominion Swine Breeders' Association. The importance of the bacon industry, and the gravity of the present situation, demand immediate action.

that were erected several years ago. Nearly all new companies are putting up the double line. It was also decided to secure connections with the Bell line, so that patrons of the line would not be confined simply to their own line, but could speak to any place on the Bell system, within 200 to 300 miles or more. The cost to secure the long distance connections was but slight, and the added convenience, more than compensated for it.

All the work in connection with installing the line was done by the patrons themselves, with the exception of stringing the wires and installing the telephone instruments in the houses. The total cost with the exception of the poles was borne by the company as a whole, and was divided

Danes Would Welcome a Commission

Geo. C. Smye, Waterloo Co., Ont.

I read with considerable interest the article in your issue of Feb. 11th, "Should Investigate Danish Bacon Trade." That the Swine Breeders' Association should have taken action in this matter is quite right. It is to these associations that we look for progressive action along legislation affecting us. The committee might have made their recommendation a little broader; that is, that the said deputation make a study of Canadian conditions also as well, and compare them with the conditions in Denmark, and thereby draw some practical conclusion from their investigations.

I was much surprised when reading further on in the article that the members of the Association took such a narrow view, as to propose that the Danes would resent having such a deputation visit them. It would be a flattering testimony to their progressiveness that such a deputation should visit them. We, as Canadians, gave the Scottish commission a warm welcome, and all the information possible. The Danes are broad minded enough to do the same.

Why Fewer Hogs are Raised

"Why is it that so many of our Canadian farmers have given up raising hogs?" was asked during one of the lectures at the recent Eastern Live Stock and Poultry Show.

"The explanation seems simple to me," replied Mr. J. H. Grisdale, of the Central Experimental Farm, Ottawa. "During the past few years the price of feed has advanced 15 to 20 per cent., while the prices paid for hogs are very little higher than they used to be. Men who formerly made a profit in hogs have been unable to do so, under the changed conditions, and have become discouraged. We notice the difference at the Experimental Farm where we have sold many pigs at \$10 that cost us that to produce them.

HOGS STILL PROFITABLE

"There should, however, be a profit in hogs at present prices. The difference is that we have got to feed and breed more carefully than formerly as unless we exercise care our margin of profit will disappear. A great deal in hog raising depends upon the feed fed. We have tried all kinds of feed at the Experimental Farm. During the finishing period we have got the best results from the simplest ration with this exception that we seldom find one kind of grain give as good results as when two are fed mixed. Still better results are obtained when three or four different kinds of grain are mixed. If a farmer has only one kind of grain it would pay him to sell some of it and to use the proceeds to purchase some other grain to mix with it.

"One of the best mixtures we have ever used is shorts, oats, barley and a little rums and skim-milk. When rums are not available oil-cake meal may be used instead. A mixture of 100 lbs. each of shorts, barley and oats and 50 lbs. of oil-cake should give good results. We have produced pork on that ration for 4½ cents a lb. We tried frozen wheat last winter but it increased the cost of production."

FEEDING ROOTS

"Roots give good results when fed either cooked or raw but the cost of cooking adds to the expense. We feed our meal wet as not so much is wasted in that way. On most farms there are always a few bushels of small potatoes in the fall that are of little use. These can be fed to hogs to good advantage."

THE BROOD SOW

Mr. Grisdale laid great stress on the importance of starting right in hog raising by getting good sows. He claimed that the difference between a good and a bad sow often means a difference of 10 to 20 per cent. in the final results and determines whether there shall be a profit or not. A

sow should be prolific, in healthy condition, from good stock and able to make good use of the feed consumed.

In December and January the brood sows at the Experimental Farm are fed clover hay, roots and a pound of bran a day. The last of January and during February and early March they are given 2 lbs. of meal, bran and shorts. Sows before they farrow are given a heavier ration. The hay is fed in racks from which the pigs eat like sheep. The sows are fed laxative feed, rich in protein.

Recent addresses and discussions would indicate that we have got to improve our methods of breeding and feeding hogs if we are to hold our own with the Danish farmers and that by careful feeding hogs may be raised at profit under existing conditions. Were a commission of Canadian farmers to visit Denmark they should be able to obtain a vast amount of information about Danish methods that would be of great value in improving the situation of our bacon industry.

Some Generalities on Sugar Making

John Jackson, Argenteuil Co., Que.

No one in these modern times would think of boiling the sap from 100 trees in old fashioned pots or kettles. The sooner the sap is converted into syrup, the better will be the article. To this



Unloading by the Gravity Method

By taking advantage of an elevated piece of ground, the sap is unloaded into the storage tanks or the evaporator by means of gravity. The photo shows the sugar camp of Mr. G. A. Cottingham, Chateauguay Co., Que.

end the evaporator is an essential part of the equipment of an up-to-date sugar bush.

The proper time to tap is when everything is ready. Once I was particularly smart and tapped a lot of trees the last of February. It then suddenly froze up. Some of the buckets were full of sap at the time and they stayed frozen for quite a while. The result was that many of them burst. I didn't try that game again. It is difficult to say just when to tap. The right time is generally after the middle of March. I would always rather be a little behind than too previous in the matter of tapping.

The No. 2 Grimm spout gives the best of satisfaction. When buying buckets get quality not shoddy. I have some that have been in use for over 25 years and they are still much better than some we get three years ago.

Scrupulous cleanliness should be observed in connection with all things pertaining to the sugar camp. The sap requires to be strained before boiling and the syrup strained as it comes from the evaporator. For this purpose we use two flannel bags arranged on a milk can.

Prepare for Corn

S. E. Lane, Hastings Co., Ont.

Now is the time for those who wish to grow a good crop of corn for their silo to haul out the manure and spread it on the fall plowing. Then, as soon as it is dry in the spring, commence disking and harrowing; continuing this cultiva-

tion at intervals, until about the 24th of May. This will dispose of all weeds coming from the seed in the ground.

If one is going to plant in hills, it requires about 15 pounds of seed to the acre, when in drills, 20 pounds. When one is sure of good seed a little less will do. It is a good plan to produce the seed ahead and sprout some of the kernels. In this way we make certain of the seed we plant. We use the White Cap Yellow Dent in our section, as it ears well when planted in good season. Last year was a good year for corn. I filled a silo 18 by 24 from nine acres with the land managed as recommended in the foregoing.

Diseases of Horses and Cattle*

Dr. J. Standish, V.S., Bruce Co., Ont.

Success with animals depends upon the food we give them; that is they should receive a balanced ration. Hay alone will not give the creature an opportunity to thrive. It requires clover and some concentrated food, also plenty of pure water. Fresh air is very important. Exercise is not valued at half its worth. Many digestive troubles are due to errors in feeding, coupled with a lack of exercise, and a lack of a period of rest for the digestive system between meals.

Horses should not be allowed to injure themselves by continual eating. Some people think that it is mean not to keep food before the animal all the time. This is a great mistake. It is natural for a cow to lie down and chew her cud, but if she has tempting food kept in front of her, she will naturally eat it. This gives less time for rest of the stomach and the chewing of the cud, and, indigestion, which is the cause of four-fifths of all diseases, will be the result.

PREVENT DISEASE

The practice of abusing animals by forcing them to take unnecessary medicines is to be condemned. Our aim should be to prevent diseases, not to doctor them. A long prescription sounds very fine, and benefits the druggist, but the ingredients of such a "shot-gun" mixture counteract each other. Red Water or inflamed kidneys is a disease which never attacks horses unless they are overfed and their exercise neglected. Colic is a disease caused by unwholesome food, such as wet or frozen grass; or by giving an extra big feed before going on a journey. By such treatment the flow of juices in the stomach is checked, gas will arise, and flatulent colic will be the result. If the horse is required to do very strenuous work it is better to give him more food for three days before, as it will not be absorbed before that time. In the case of cows it takes five days for absorption.

KIDNEY DISEASES RARE

Enteritis, or inflammation of the bowels is another disease caused by injudicious feeding and watering. Many mistake it for a disease of the kidneys because the animal will rub its nose up and down its sides. This action is an indication that the horse is following the pain as it proceeds in the bowels. It is rare for cows and horses to have kidney diseases, for they do not, like man take stimulants, pepper, mustard, and such condiments.

If an animal must endure forced idleness it should have its rations reduced. We are not raising dairy cows and horses to eat, we should aim at growth but not fat. There is no power in the latter.

Grease, cracked heels and Monday morning disease are other ailments caused by over feeding and idleness. They generally appear after a rest on Sunday. It is better not to hurt a horse with too many oats when idle. Fourteen pounds of hay and five pounds of oats daily will sustain life in a horse, but it is not sufficient to work upon. For the average horse 14 pounds of oats, 14 pounds of hay and two to four pounds of

*An address delivered recently at the Berwick, N. S., Seed Fair.

ground barley, beans or corn is a very good ration. Beans, peas and barley should not be given to a young animal.

More Light on Cultivation Methods

Arthur Christie, Dundas Co., Ont.

As Mr. Brethen says in Farm and Dairy for February 25th, "when men like Mr. Rennie and Mr. Fixter differ so widely in their methods of cultivation, what are we to do?" The conclusion that I have come to is that the man who gets along best is the man who adapts himself to his surroundings and makes the best use of the material he has at hand. He must also endeavor to find out for himself which is the best method, also the one which suits his soil best. There is a saying that reads "experience is one of the best teachers." As my experience I presume has been even shorter than Mr. Brethen's I would like some of the older men to take part in this discussion. This old axiom pertains more to the farming industry than to any other business. A man may attend an agricultural college for ten years and if that man has had no previous experience in farming, in nine cases out of ten he will be a failure. So some of the older men join in this discussion.

I was raised on a farm and have worked on a farm all my life. I spent one year at the Guelph Agricultural College. I take the leading farm papers; I also get the different bulletins. I attend the stock classes and institutes. I read all the papers I take, also the bulletins and lay them aside and keep them for reference or for re-reading. I also endeavor in every way possible to improve my methods and I find there is something new to learn each succeeding year and I do not know half as much as I would like to know. I believe if I were to keep right on for 20 years more I would find there is something yet to learn in connection with the greatest industry on earth.

MR. RENNIE'S METHOD TRIED

When I left the Ontario Agricultural College I was greatly taken up with Mr. Rennie's method of farming. I decided to put it into practice on my father's farm. I accordingly fixed a piece of clay loam for roots, ribbed it up in the fall and

left it until spring. In the spring I put the spring-tooth cultivator on it and tried to work it up. After going over it three or four times I became disgusted and hitched on to the plough and ploughed it. I found the centre of the ridges fully as hard as the land was before it was ploughed the previous summer. One of my neighbors who was counted the best farmer in our section, a man who had made a success of farming, became convinced that Mr. Rennie's system was the proper one to follow. He purchased a cultivator for somewhere about \$60 with ribbing attachment. He had a ten acre field on which he had grown a tremendous crop of leaming corn the previous season. The corn had been planted three feet four inches between each hill. In the spring he put the hired man cultivating in this field. After he had cultivated it three or four times he got it ready to sow. As I was anxious to find out how he was getting along I passed the farm the

the poorest and dirtiest piece of grain he ever grew. I have heard men praise this system all over the country and I have seen them preparing their corn ground in the fall for a grain crop. You may judge of my surprise when passing their farms last spring to see them back with the old plow breaking up the baked soil.

In answer to Mr. Brethen I beg to say that although the greater part of Eastern Ontario is clay loam, the land in my immediate vicinity is grave"ly loam, somewhat rolling, with a few of the more level fields clay loam, with a rocky or stoney sub-soil. Hence I have had an opportunity of testing surface cultivation and of observing others test it in different soils.

ANOTHER NUT TO CRACK

With regard to cultivation I would like to ask Mr. Brethen why he "pulls his manure up to the top of the corn ground." I find when I have plowed down a crop of grass and manure that I have made a store house for conserving moisture. When the bacteria commences to work in the grass and manure it is then in a condition to store up large quantities of water; and it cannot be improved by stirring it up. I then keep the harrows going until it is ready for the two-horse cultivator, after which I endeavor by shallow surface cultivation, to form as fine a mulch as possible, and thereby prevent evaporation. I also find that by using the broad shears on my cultivator and by keeping the weeds out off just below the surface a few inches that it gradually weakens the plants. Were I to cultivate deeply and draw the manure to the top it would spoil my storehouse and tend to dry the ground out.

I do not claim my method is the best in every case. I merely claim it suits my conditions, for while my neighbor's corn was curled up in the leaf during the continuous drought last summer mine was always fresh and green. The difference between Mr. Brethen's method and mine can easily be seen. While shallow plowing and deep cultivation has proven the more successful with Mr. Brethen, deep plowing and shallow cultivation has proven the better in my case.

CROPS TOO HEAVY TO HARVEST

As to the increase in crops by the different methods, Dundas being a strictly dairy county, we find that our farms are increasing in fertility

A Welcome Visitor

Ed., Farm and Dairy.—We congratulate you on the get-up and the fast improvement of Farm and Dairy. We believe it to be one of the best, if not the best farmer's paper in Canada; we have come to this conclusion after reading our other weeklies and dailies. There is a regular scramble in the household to get hold of Farm and Dairy when it arrives.—Geo. H. Caughell, Elgin Co., Ont.

next day. All hands were gathering the corn roots and old stocks into piles with pitch forks and burning them. The cultivator was put into the shed and was not taken out again until it was sold at a sale.

RIBBING NOT A SUCCESS

Since I have been on a farm of my own I have purchased a sub-soil cultivator with ribbing attachment. I have tried it and my experience has been as Mr. Fixter says, the centre of the ridges are hard and lumpy, and the old corn stalks and roots clog the harrows and drill making it almost impossible to get a good seed bed. A man in my neighborhood who has a good clean gravelly loam farm borrowed my cultivator last fall to prepare his corn ground. He told me this winter it was



PINSONNEAULT
PRESOTT

The Directors and Prominent Members of the Eastern Ontario Dairyman's Association, as photographed at the Prescott Convention, specially for Farm and Dairy

The directors of this association are elected each fall at the district dairy meetings held in the different dairy districts of Eastern Ontario. They include members and ex-members of the House of Commons and Ontario Legislature, wardens of counties, Reeves and other prominent men. For list of names see page ten.

every year and in ordinary seasons crops grow as heavy as can be handled. In fact, were our corn crop any heavier than it was this year, our new McCormick binder would have been beaten. I have seen crops of oats that we could only cut half width with the binder, as it came on the table in such quantities that the knottor was unable to handle it.

The days of the plow are not yet over in Dundas county. After trying the systems of a number of leading agriculturists, I use Mr. Rennie's rotation, Prof. J. D. Roberts' method of plowing, and Prof. Grisdale's method of preparing corn land. One great advantage I find in Prof. Grisdale's method is: should my new seeding winter kill I will not be left without

grass as would be the case had I plowed my soil in the fall. I trust this discussion will not close before others have taken part. This discussion has been most valuable to me and it should interest every farmer in Ontario and the Eastern provinces. There is nothing pertaining to the interests of the farm that benefits the farmer more than such discussions in a paper like Farm and Dairy.

Particularly is this true when it is carried on in a friendly manner. I regret to say, however, that as farmers, we do not always do this. We are too often ready to light on to one another if our views are not alike, or if any other farmer tries to tell us anything. We, apparently, sometimes forget that all men are not situated alike and a method that will prove successful with one farmer in one locality may not answer on another farm differently situated.

Earth Roads and Their Maintenance*

W. B. Rittenhouse, Beamsville, Ont.

A mistake that has heretofore been generally made in road construction is by making them too wide, thus costing too much in building and maintenance. Narrow them down to from 18 to 24 feet depending upon the amount of traffic. Besides the saving in maintenance, by centralizing the traffic, you have a firmer and consequently a better road. A road I undertook to improve a few years ago was 20 feet wide. The first season I turned two furrows with the plow on each side towards the fences, thus narrowing it about four feet. The next year I turned one more, so that now I have a road about 24 feet wide.

Many of our roads as we find them to-day have received more or less attention from time to time by grading, perhaps every five, ten or fifteen years, and during these periodic intervals, little or no attention has been given them, except perhaps in the spring, when the rollers were passed over them once or twice. The results of such a system must be evident to all, namely, that after the grading was done the grass and weeds finding a favorable "spot" in this newly cultivated ground take possession of the road, from the wheel tracks to the gutters. The grass and weeds, adjoining the travelled portion of the road make an ideal lodging place for the mud and dust, thrown up by the traffic, so that soon an elevation or shoulder is formed, thus preventing the free escape of water from the ruts and the depressions formed by the traffic. You then have all the conditions that could be desired to do the road with the assistance of the traffic the greatest possible injury. This system left the roads almost invariably in far from ideal condition during the greater part of the year.

DIRECT TRAFFIC TO CENTRE

A newly graded road (unless special attention is given by repeated rollings, draggings, etc.) is not generally left in good condition the first year, and there is a tendency to force the traffic whenever possible to the sides, whereas it should be directed at once to the centre to make it firm and compact. A plan I have sometimes adopted on a newly graded road with good results, to induce the traffic to the centre, is by making a few rounds with a wide-tired wagon, after which they fall in line. Such a road will need careful and frequent looking after the first season. As soon as it becomes the least rutted with use, which it is certain to do with the first traffic, use the split-log drag repeatedly whenever indications show an uneven road surface, and you will soon

*Extract from an address delivered at the Convention of the Good Roads Association last week.

have a road that is worthy of its name, and not hear of such complimentary remarks that one frequently hears, of the abominable condition of the roads. My plan of operation is that when a road is once graded, it can ever after be maintained with far less expense, and a very much better road at all times as a result, and never a general "tear up" at any time.

The good old adage "a stitch in time saves nine" is specially applicable in road maintenance, and if observed would save many dollars and give us better roads. It is necessary to pass the drag occasionally over the road from gutter to gutter, thus never allowing any grass or weeds to grow, as such would be, not only unsightly, but also prevent the judicious use of the drag, and have a tendency to check the free escape of water, and retain moisture in the soil to the injury of the road. By this method of procedure you have at all times an even, uniform road surface from gutters to centre of road, hence no water permitted to remain on the road, with which the traffic can create an elongated mud puddle so universally to be met with.

GET RID OF SHOULDERS

Many of our roads, are already sufficiently graded, that is they have enough drop from the centre of the road to the gutters, and yet they are in bad condition, on account of the shoulder at the sides which must necessarily be removed in order to put the road in proper shape. When the sod and earth is not too stiff or firm, this can be cut off with the grader, as well as the grass and weeds right down to the gutters. When it is done in that way, it will be necessary to use the diak harrow to cut up the sods after having been carried on to the road, and then by applying the roller and the split-log drag, you have it in good shape for future maintenance at a nominal cost.

Another way less expensive, and I think preferable to accomplish the same results, is to first cut up the sods with a diak harrow and cultivator, or by shallow plowing and then cutting up the sods and moving them on to the road with the drag. One man and team will do nearly as much in a day as two men and teams using the grader at such work, thus leaving the grader free to do the work on new roads being constructed, and where more earth is required to be moved. When our earth roads are once got in that condition, then and not until then, can we expect to have good and cheap roads during the greater part of the year.

Dr. J. G. Rutherford, of Ottawa, Dominion Live Stock Commissioner and Veterinary Director General, has tendered the government his resignation recently, has been induced to withdraw it and will continue to hold his present position. This is fortunate as Dr. Rutherford has been doing splendid work for the live stock interests of the country.

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THE EXPENSE OF CONDIMENTS

It is recognized by feeders generally that a condiment is necessary with any feeding. A safe condiment must contain no dose of any kind. It must not be a tonic in a direct sense, it should act as a tonic indirectly by making the food more easily digested. It should not be expensive. Herbageus fills all the conditions. One fifty cent package is enough for one animal for eight months. It contains no drugs, and is just as it should set. It is as natural and safe as any first class pasture. For cows coming in it is a great safeguard, and for young calves it has no equal.

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The Feeders' Corner

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

Criticisms of Ration

In the Jan. 21st issue of your valuable paper, Farm and Dairy, there was an article headed "Composition of Cattle Foods." As I intend to go into dairying, and have chosen the Holstein-Friesian breed, and have been trying different kinds of feed, I thought I would like the composition of the different feeds, this article came very welcome to me. I sat down and figured on a mixture of food for a ration for a cow. I would like your support and advice concerning it, as I know of no other place where I could go for better support than that given by Farm and Dairy. I hope there will appear more of such articles in Farm and Dairy, of which I am an interested reader.—George H. J. Gray, Ont.

Your correspondent proposes as food for a dairy cow for 260 days the amounts and kinds of feed given below. It is probably intended to mix the different kinds of meal to suit the requirements of the cow.

Oats, 500 lbs. at \$1.50 a cwt.	\$7.50
Barley, 100 lbs. at \$1.50 a cwt.	1.50
Corn, 100 lbs. at \$1.40 a cwt.	1.40
Peas, 200 lbs. at \$1.60 a cwt.	3.20
Wheat middlings, 500 lbs. at \$1.10	5.50
Wheat bran, 800 lbs. at 1.10 a cwt.	8.80
Cottonseed meal, 100 lbs. at \$2.00 a cwt.	2.00
Linsed meal, 200 lbs. at \$1.05 a cwt.	2.10
Gluten meal, 100 lbs. at \$1.60 a cwt.	1.60
Hay, 2000 lbs. at \$3.00 a ton.	6.00
Turnips, 7000 lbs. at \$2.00 a ton.	8.00
Corn silage, 9000 lbs. at \$3.00 a ton	13.50

This would, your correspondent states furnish a daily ration as follows for 260 days:

Meal mixture	10 lbs.
Hay	7 1/2 lbs.
Corn silage	34 1/2 lbs.
Turnips	27 lbs.

Re feeds and proposed ration, I have the following remarks to offer.

In the first place I would suggest that the Barley, Corn and Cottonseed meal be left out of the ration unless some very strong reason not given exist for their use. The place of the corn and barley might be taken by an equal amount of oats making 700 lbs. instead of 500 lbs. oats. The Cottonseed meal might be replaced by Gluten meal or Oil Cake meal, preferably the latter.

Such small quantities of 100 lbs. of anything in a mixture of 2000 lbs. is trouble some and of very little value, further cottonseed meal is usually very hard to get and often sadly adulterated.

The ration makes no mention of straw. I would suggest that half the hay be replaced by wet straw. The daily ration indicates roots throughout the 260 days. I would suggest rather a more plentiful supply of roots when in heaviest flow of milk and none at

few when not so much milk is being produced.

The ration suggested is suitable for a cow in full flow of milk, but is too heavy for one giving a small quantity. I would suggest that the meal ration be fed more nearly in proportion to the milk being produced, say at the rate of about one pound meal mixture for each four pounds milk produced. At this rate 2600 lbs. meal would be sufficient for a 10,000 lbs. milk a year cow. Such a cow is scarce.

Your correspondent seems to allow for 260 days in milk. A good cow should milk at least 300 days in the year. Further, she must be fed well dry for which no allowance is made.—J. H. Grisdale, Agriculturist, C.E.F., Ottawa.

Rations for Nursing Sows

I have been much interested in J. H. Grisdale's feeding rations for cattle, horses and hogs. What proportion would you mix mangels, bran, shorts and pea chop for sows nursing little pigs? Give me a ration with skim milk and without milk for sows nursing little pigs.—G. G. Elvaine, Ont.

Sows nursing little pigs may be expected to give best results if fed approximately as follows:

Of a meal mixture of bran 200 lbs., shorts 300 lbs., pea chop 100 lbs. Give what the sow will clean up nicely, and an equal amount or slightly more mangels.

If skim milk is available it should be mixed in with the meal. It would never be advisable to give more than eight or ten pounds a day and it should be uniformly sweet or uniform sour. Do not over feed but be sure to give her enough.

Ration for Milking Cows

Kindly make up ration for milch cows from following feeds which are available at following prices: Oil cake meal \$24; corn, \$30; oats, \$30; middlings, \$28.50; bran, \$24. We have also mixed grain, oats and barley about one quarter barley with a few peas. Also a limited quantity of sugar beets. For roughage, good hay with amount of clover mixed in it, oat straw and straw from mixed crop. Would it be best to cut part of the roughage to mix with meal ration?—L. H. L. West, Sherbrooke, Que.

The best and most profitable results from the above feeds might be anticipated from following approximately the following suggestions.

Cut the oat straw. Pulp or cut sugar beets. Spread out a layer of cut straw three or four inches thick, sprinkle water thereon about one pint to square foot. Spread a few roots and give a sprinkle of salt. Repeat until enough straw, etc., has been piled up to last three or four days. Feed straw or mixture, scatter meal on top (half amount of daily ration) give a stir to mix meal and straw mixture. Feed hay long or cut part of it and mix with damp straw. Be sure to feed part of hay long. The amount of meal to feed will depend on the cow. Give her from three to three and one-half lbs. meal for each gallon of milk produced.

The best value and probably the most profitable meal mixture between the mentioned feeds would be:

Oil cake meal	300 lbs.
Bran	600 lbs.
Mixed grain	300 lbs.
(Oats, barley and peas as described).	

A good ration for a cow giving 20 lbs. milk a day would be about as follows:

Meal mixture	6 lbs.
Long hay	6 lbs.
Cut hay	6 lbs.
Straw	10 lbs.
Sugar beets	20 lbs.

J. H. Grisdale, Agriculturist, C. E. F., Ottawa.

Farm and Dairy is a clean paper. It is well filled with good, useful farm and home pointers.—Geo. Corner, Sr., York Co., Ont.

DO YOU WANT MORE MILK?

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Read the following and then write.

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Toronto, Ont. Jan. 27th, 1909.

I have used the sample can of Fluid Dip as a disinfectant and find it all that you claim for it. As an insecticide I am of the opinion that it will be valuable, and as its merits become known it will be appreciated by our stockmen. No stockmen should be without some preparation of this kind in the stable.

Very truly yours,
(Signed) W. F. STEPHENSON, Secretary-Treasurer.

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It contains the unexcelled experience of the granaries which this firm has spent in learning to produce an absolutely perfect milk. The \$5.00 farmer who uses Blatchford's Calf Meal today knows its value. Your name on a post will bring it to you.

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Dairy Number

Out April 8th

Will be the next big magazine number of FARM AND DAIRY. Special articles will appear that are of splendid educational value. Dairying on the farm, creameries, cheese factories, exporting, cream separators and a number of other subjects equally important will be dealt with. Forms close March 30th.

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HORTICULTURE

Making and Managing Hotbeds

E. G. Cooper, Hutton Co., Ont.

There are two systems of making hotbeds—the pit and the surface. For the pit system, a permanent place should be chosen in fall, which is sheltered on the west, north and east sides. The height of the shelter should be not less than five feet from the level of ground.

Dig out the soil to a depth of one foot three inches, six feet wide and any length that is required. The bed should run east and west. Fill up with leaves, if possible, then cover with brush or boards to await the right time in spring.

HOW TO MAKE FRAME AND SASH

A frame five feet six inches wide should be made of one inch boards securely fastened at the corners, one side of said frame to be six inches deeper than the other, the one side to be 18 inches and the other 12 inches. Supports or cross bars should be mortised in every three feet for the sashes to rest on.

The size of the sash recommended is five feet eight inches long by three feet wide. Two centre bars should be put in each at equal distance apart, and running lengthwise of sash. Use three rows of 10 x 12 glass. The side pieces should be two inches from the outside of the frame to the edge of the glass, and the inside bars one inch from glass to glass. This will take up the three feet of space as follows: three rows of glass, 10 inches wide, 30 inches; two side pieces, two inches wide, four inches; two bars or centre pieces, one inch wide, two inches; this makes 36 inches, which is the width of the sash.

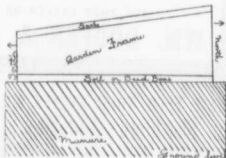
The side pieces and centre bars should have supports tacked on or be grooved with a plane so as to support the glass. Put the glass in lengthwise, using five lights to each space, and butting them. The end pieces should be four inches from the

outside of the glass. The rest for the glass at the top should be the same as the sides and bars, but the lower one should be one-quarter of an inch thinner so that the glass can rest clear from obstruction in order that the moisture and water may run off the frame. Thus the sash will be two inches longer than the frame is wide so that it may project over.

Sash covered with factory cotton can also be made the same size as the others. The cotton should be given a coating of raw oil. Centre pieces or bars should be put in the sash to keep the cotton from sagging. These sashes can be used for protection from frost, and also from the severe heat of the sun later in the season.

THE PIT SYSTEM

The pit system is the most economical as far as the material for the bed is concerned. It requires one-



Build a Hot Bed Like This

The illustration gives a general idea of the relative positions of the materials used in making a hotbed by the surface system. Read the article, and note that the frame should be banished with curch or straw manure.

quarter less manure than the surface system. Take fresh horse and cow manure in the proportions respectively of two to one. Take it from the stables. Mix well, say twice, making a heap as large as is required. When putting it in the pit tramp it well and leave for a day or two, then shake well and tramp again thoroughly, especially in the centre.

Put on the frame with the highest side to the north and cover with the glass sash, leave it for at least two

days, then take off the sash and if the bed is good and hot put out four to six inches of very rich soil, finely pulverized, spreading it evenly over the bed. Put on the sash for a few days more, then if the soil is warm, it is ready for sowing. Level the soil with a garden rake.

The first crop may consist of lettuce, radishes, shallot onions for green use, a little cress or endive, early kinds of tomatoes, celery, beets, onions, cabbages and cauliflowers. In a shallow bed three or four inches deep put two layers of an early variety of potatoes.

The time for the commencement of the first bed should be the second week in March. Sow the seeds of radish, onion, tomato, cabbage and cauliflower, and in the latter cover them in, in rows two inches apart. Celery and lettuce seed should be covered only with a damp cloth. Sow shallot onions and beets one inch deep.

THE SURFACE SYSTEM

In the surface system, the material, frames and sashes are the same as for the pit system. The manure is placed on the top of the ground and is not in a pit, the difference is the width of the bed before the frame is put on. In the pit system the width is six feet; in the surface system it should be eight inches wider on both sides of both ends. After the frame is put on and covered with sash in both systems, it should be banked well on the outside close to the boards to keep the heat from escaping.

HAVE TWO BEDS.

After two or three weeks another bed should be prepared in the same way and with the same kind of material so that the plants from the seed bed can be transplanted. Place cabbage and cauliflower two inches apart each way, celery one each, and lettuce and tomatoes five inches. Beets and onions can be left in the seed-bed until the open ground is ready to receive them. Transplant the beets four inches apart in rows and the onions two inches. This is done about the first of May.

When the plants in the second bed have grown to a good size, the glass can be removed and kept off during the day to harden them. At night, the glass sash or the cotton sash, or perhaps both, according to the temperature, can be put on.

Cabbage, cauliflower and celery can be transplanted to the open ground about the first of May. Tomato plants should be left in the beds, hardened in the day time, and covered at night until all danger of frost is past. Do not water the seeds in the first bed with any force. Have a watering can with a rose that is perforated very finely. Keep the second bed moist but do not water the first bed.

After all the plants have been removed from the beds, cucumbers and melons, that have been raised in pots or strawberry boxes, can be transplanted and grown in them. Put the glass sash on them. Mushrooms may appear in the bed later in the season. After all use for the sashes, both glass and cotton is over, they should be stored in a dry place, securely packed, and kept for another season.

The Cabbage Maggot

One of the worst pests of the vegetable garden is the cabbage maggot. From experiments that have been conducted at the Agricultural Experiment Station, St. Paul, Minn., the following facts in respect to its control have been learned:

The best results were obtained by treating cauliflower by the method given below. It is an available remedy for a limited number of cauliflower and cabbage, and if the crop brings any price whatever, it would seem that it is practicable for a large acreage of cauliflower.

Steep two ounces of white helle-

bores in one quart of water for an hour, then dilute with water to make one gallon of the decoction. Larger quantities can be made by increasing the proportions. Apply with watering pot from which the rose has been removed, a few days after plants are set out; five days later apply again, and a third application five days after the second. Use the solution five or six times more at weekly intervals. It takes approximately between two and three hours to treat 1,000 plants, and the material required for this number costs 50 cents at retail. About a teaspoonful is poured around each plant.

Fields exposed to breeze suffer less than sheltered fields.

Fields in which the old stalks are not allowed to stand appear to be less affected than fields which are neglected in this particular.

Holland cabbage appears to be exempt from attack, no cabbage maggot being in this variety.

Red cabbage, on the contrary, is not immune, since it suffers from the attacks of the maggot.

Cabbage maggot flies may emerge from pupae (the hard brown resting stage following the maggot) which are buried five inches deep in the soil.

If it were not for parasites and predaceous enemies, which play an important part in helping the gardener, this pest would be much worse than it is.

Grass Seed for Lawns

What is the best mixture of grass seeds to seed down a lawn? In what proportion should they be sown?—E. A. B. Midway, Ont.

An equal parts mixture is made of equal parts by weight of blue grass, red top and white Dutch clover. Sow at the rate of about 50 or 60 pounds an acre. All the seed firms that advertise in Farm and Dairy have ready prepared lawn mixtures for sale.

Watch the fruit trees for cocoons and eggs of tussock moth, tent caterpillars and other insects. Destroy all that you find. It will lessen the number of insects for next year.

Many farmers who said a few years ago that spraying does not pay, are now the most enthusiastic followers of the practice.

What fowls a White Leg become gray colored become not starry but sitting on the diet as consistently or a mixture of the meat raw, and being a milled with in a pot barred with best of their own I have a der. The ash sits on and floor at Hallow Bay. From disease, the mat inform sickness condition helped fowls a Naemic chicken a blood flesh, at the bird comes a night h. The m and sun the oxyg the case give no tonic, ke

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POULTRY YARD

Having Geese Lay Early

W. J. Card, Northumberland Co., Ont.

In order to have geese laying early they should be fed corn and wheat and plenty of green feed such as cabbage or mangels. Allow them to run out doors where they can get grass as soon as the snow is gone.

Some are difficult in getting their geese to lay before the 24th of May. Mine always get started by the 15th of March or at the latest March 15th. Those having geese that will not lay before the first of April should discard them and get some other kind. The large grey Toulouse will be found to be good early layers when handled as recommended in the foregoing.

Managing Turkeys

Mrs. M. Ryan, Peterboro Co., Ont.

Last year I raised 50 good turkeys. Had my losses, however, and while I raised this number, I lost about 35. From the information at my disposal I judge that the loss was due to cholera and at that time I did not know how to treat them.

For the first two weeks, I feed young turkeys on bread soaked in water and dusted with pepper. We give them plenty of room and air at night and keep them clean by using plenty of insect powder. The turkeys are allowed to roam around freely when it is dry; in wet weather they must be sheltered while young.

When the turkeys are two weeks old, I feed them a mixture of ground grains composed of equal parts of barley, wheat, corn and buckwheat. This is ground finely together mixed with water and fed lightly three or four times a day. In addition to this I use a little herbage or poultry food when they are young.

Anaemia in Fowls

What would be the best treatment of fowls ailing as follows:—The birds are White Rock pullets. Their plumage has become spotted and they are very dry gray colored feathers. Some of them have become so thin and weak that they cannot stand up to eat though they are always hungry and eat the best they can sitting down. They are fed on a varied diet as follows: Grain in the morning, consisting of either barley, wheat or a mixture of oats and peas fed in a little of clover chaff. Cracked bones, a little meat and vegetables, either cooked or raw, are given them in the afternoon, a mash of oats, barley and pease, mixed with clover leaves, and wet with boiling water, is given. These birds are in a pen alongside some two year some barred rocks, which seem to be in the best of health. There are no lice on them that I can find, though to be sure I have dusted them well with insect powder. They have an abundance of grit and ash siftings. They are incubator chickens and have at least ten on the floor at night instead of going to roost.—Halcot Benson, Northumberland Co., Ont.

From the short description of the disease, it is hard to say just what is the matter with the flock. Had the information included durations of sickness, color of combs and wattles, condition of bowels, etc., it would have helped but from symptoms given the fowls are probably suffering from *Anaemia*. The main symptoms of chickens suffering from *anaemia* are a bloodless appearance, and loss of flesh, as the disease advances, until the bird is nothing but skin and bones. The plumage loses its gloss and becomes ruffled and in a white bird might have the appearance mentioned.

The main cause of loss of flesh and sunshine. The blood does not get the oxygen required. Should this be the case here, correct the errors and give nourishing mashes, add some tonic, keep everything clean and pure,

allow plenty of fresh air and the least affected may recover in time, the others had better be killed.—F. C. E.

Buttercups—A New Breed

J. S. Dumareq, in "Industrial Hen"

Three hundred eggs a year per hen. That is the record of this remarkable breed. For the production of eggs there is no other breed that touches them. The Leghorns, Hamburgs, Wyandottes, even the Rhode Island Reds "are not up with them." Buttercups are non-setters, and lay practically all the time, even when moulting. They lay large pure white eggs. This new breed is extremely unique, totally unlike all others.

Some of them have legs of a willow-green color, while others have them of a yellowish color. The comb is their peculiar characteristic. It is neither rose, pea or single, but is formed like a cup or saucer on top of the head with points resembling a flower, hence the name "Buttercup." Plumage of the cock is a buttersh red, to a red, with black main, tail and wing flight feathers, very much the color of the Rhode Island Red, weight from 5 to 7½ lbs.

Hens are solid buff or somewhat spangled or lay in the manner of Golden Spangled Hamburgs. Weight of hens 4½ to 6½ lbs. They lay as well as two and three years of age as well do when pullets, and are good layers until six years old. They mature very early from three to four months, are very small boned, and have a great deal of meat as yellow as gold.

The gentleman from whom I procured my egg writes of them as follows: "Unlike the crazy, wild, untamable Leghorns 'Buttercups' are exceptionally gentle and friendly. They are active and good foragers, and what

is more important, they are light feeders. It does not require any more feed to keep in good condition twenty-five 'Buttercups' than it does a dozen Leghorns, and if given free range they require no feeding except during the winter months.

They are extremely vigorous and hardy. The chickens feather and mature quickly, and are unsurpassed as broilers. Unlike Leghorns and the other egg-producing breeds, they are as plump as a partridge and the meat is of the very highest quality for the table.

They have exceedingly small bones, and there is more meat on a 'Buttercup' than on any other breed of same weight. Although of such excellent quality as broilers, on account of their size, they are not recommended as roasters, but for eggs, eggs, eggs, every day and all the time, without the shadow of a doubt they are the best and most valuable breed on earth."

'Buttercups' were brought from the Island of Sicily by the captain of a vessel, who brought a cargo of oranges, raisins, and figs to this country.

When ready to sail he bought a coop of fowls that he might have fresh meat on the voyage home, but they laid so many eggs he concluded to bring them all home instead of eating them, feeding them as well as he could during the voyage.

I have a pullet hatched May 1st, that laid August 15th, 3 months and 15 days, showing how early they mature.

I have given up Wyandottes so that there will be no chance for a mixture in breeds, and I am able to give the Buttercups more freedom than formerly.

Renew Your Subscription Now.

RAW FUR and HIDES

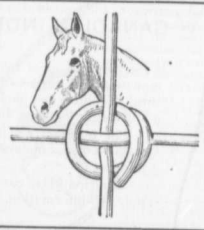
Write for Weekly Price List
JOHN HALLAM

Shipments Solicited.
TORONTO, ONT.

MONARCH Stiff-Stay Fence

The Fence With No HIDDEN Weaknesses

Why do you see so many broken fence wires? Nine times out of ten they are the result of hidden weaknesses—weaknesses the purchaser was unaware existed. These weaknesses are result of inferior grades of wire—unduly knirked laterals—severely applied locks. By severely applied locks we mean locks pressed directly over the place where stay and strand wires cross. This tremendous direct pressure causes an injury to the wire—this is quite apparent if you remove the lock, and is sufficient to make the wire an easy prey to frost, snow or heavy strains.



THE DILLON Hinge-Stay Fence

It's impossible to bend the stays on the Dillon. They are hinged to the strand wire. The give or swing under pressure and spring back to original uprightness when pressure is removed. The hinges cannot slip along the laterals, as the laterals are crimped at the intersection. A series of coils in the strand wire prevent contraction and expansion. The Dillon Hinge Stay Fence is not alone unique but positively unsurpassed as a lasting fence investment. It is made in both medium and heavy weights. Shall we send you our complete fence catalog, describing both the Dillon Hinge Stay and Monarch Stiff Stay fences, also ornamental fences and gates? It contains fencing facts you'll be glad to know about.

The Owen Sound Wire-Fence Co., Ltd. Owen Sound, Ont.

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

Hatch Chickens by Steam



242 EGG STRAIN (Kulp)
Brown Leghorns from the biggest birds and biggest layers of big eggs (up to 32 or 33 per doz.) Best business breed of American Heavy, hardy, sound and profitable; lay earliest and longest. Broodiness as high as that of the best fertile eggs at \$2.00 per 15. Circulars free.
BRANT POULTRY FARMS, Brantford, Ont.

Any hens showing signs of unhealthiness or lack of constitution would be better out of the way. Be sure they are free from lice and the house free from mites.

Renew Your Subscription Now.

FOR SALE AND WANT ADVERTISING

TWO CENTS A WORD

THIS DEPARTMENT is one of the most valuable in the Paper. At a cost of only Two cents a word, you can advertise anything you wish to buy or sell, or situations wanted or vacant.

THE ADDRESS must be printed as part of the advertisement and should not be counted as one word. Minimum cost 25 cents each insertion. When replies are to be sent to a box at our office, 10 cents extra is charged to pay postage on replies to be sent to advertisers. Cash in advance.

COPY must be received at our Toronto office, 72 Queen St. W., by Thursday to guarantee insertion in issue of the following week. **NO BLACK-FACE TYPE** or display of any kind will be allowed under this head, thus making a small advertisement as noticeable as a large one.

EGGS.—High-class Rose Comb Brown and Single Comb White Leghorns; \$1.50 per 15.—J. H. Rutherford, Caledon East, Ont.

ROULEN DUCK EGGS at \$1 for six, or \$2 for 15. These ducks are bred from imported eggs.—J. H. Rutherford, Caledon East, Ont.

NINETY-FOUR PER CENT. of our readers keep poultry. Get rid of that surplus stock by placing an advertisement in this column.

WHITE WYANDOTTES.—Eggs, Pullets and Cockerles for sale from the noted winning strain of H. Lush. Will make winners.—Robert Matland, Fowlers Corners, Ont.

FARMERS ARE NOW BUYING settings of eggs in large quantities. If you have any, place an advertisement in this column, and see how fast you sell them.

Now, in the Monarch, the lock is applied diagonally with the strand, which means there is no pressure applied at the crossing. And the ends of lock are neatly hooked over the strand wires. Thus the Monarch lock is prevented from spreading or loosening. And the fence is made of best grade No. 9 Hard Coiled Wire. Also, there is no undue kinking of laterals.

No hidden weaknesses in the Monarch fence. It will stand the most severe tests of weather, animal or man. Catalogue free, if you'll ask for it.

More Agents Required

Energetic men will find our line of fencing and gates the best on the market. No other agents have two such superior and different fences as the Monarch and Monarch comparison with other agents our representatives have double the chances of securing a purchaser. Just write for agency particulars.

FARM MANAGEMENT

To Register Pure Bred Cattle

To whom must I apply to have a pure-bred Shorthorn calf registered?—D. A. S., Bruce Co., Ont.

Apply to the Accountant, National Live Stock Records, Ottawa., for application forms for the registering of Shorthorn cattle. The forms must be filled in and properly signed by the breeder and returned to the accountant with the necessary fees, sent by express money order, or registered letter. The dam must be transferred to the owner from each succeeding owner and the signature of the owner of service sire must be provided. The rules of the Dominion Shorthorn Breeders' Association appear on the back of the application forms, also the fees.

Is It a Case of Fraud?

Did you ever hear of a pure bred Holstein being red and white? I purchased a pure bred registered bull from a well known Holstein breeder, which when bred to grade cows threw several red calves. Last week when a pure bred registered cow with extended pedigree dropped a red and white calf, I came to the conclusion that this breeder had been doing some crooked work. At any rate, it is rather a sore disappointment after having paid a high price for pure bred stock to have it turn out that way. I would like to know if such things are liable to happen, or how I have been defrauded?—A. M. Hastings Co., Ont.

A case such as that described by your correspondent has never come under my personal observation. I believe however, that it would be possible for a pure bred Holstein bull to get red and white calves, and I would not say that the bull in question is not a pure-bred on this count alone. In Holland, I believe that red and white animals of this breed are not uncommon, and that there are pure bred herds which are selected for red and white color to the exclusion of black and white. But while the calf may be pure bred, it cannot be re-

corded in either the Canadian or American herd book, because both these associations require that an animal must be black and white in order to be eligible for registration.

This rule size excludes animals which are all white or all black, so that the red and white calf will be on the same basis as those which are black or all white, so far as registration is concerned, though there is no question as to the purity of blood in the case of all white or all black animals.—G. E. Day, O.A.C., Guelph.

Queries Re Cement Silo

How much gravel and cement will be required for a silo 12 x 30 feet? What kind of gravel should we use, and what would be the probable cost of such a silo? Would it be necessary to tie the wall that was under ground? We propose to set it in several feet of an embankment.—J. S., Halton Co., Ont.

A silo of this size will take 30 yards of gravel and 30 barrels of cement at a proportion 1 to 7. The usual size of 1 1/2 inch eggs down to sand. The coarser the gravel the better, as long as there is sufficient sand to fill all the voids between the gravel. If your correspondent cannot get coarse gravel and must use fine material he can save cement by securing a few large boulders. Seven or eight yards of boulders up to six inches in diameter can be used by simply dumping them into the concrete as the curbs are being filled. For each yard of boulders used it will save him about three-quarters of a barrel of cement.

In regard to cost of building we might state that cement can be purchased in car lots at \$1.50 a barrel, or can be purchased retail at \$1.80. If one decides to operate his own curbs and build his own silo he can save a considerable amount on labor. Three men will erect this silo in seven days operating a set of silo curbs. We figure the actual cost of a silo of this size as follows:

30 yds. gravel at 50c yard..... \$15.00
30 bbls. cement at \$1.80..... \$54.00

3 men 7 days, 21 days labor at \$1.50..... \$31.50

Actual cost of silo to contractor \$100.50

A contractor erecting this silo usually gets about \$240.00. In regard to tying the silo below ground, we might state this is not necessary. The first re-inforcing is usually placed about 13 inches above ground level.—London Concrete Machinery Co., H. Pocock, Manager.

Getting Rid of Wire Worms

What can I do to prevent yellow wire worms from destroying my oat crop?—M. S., Gungahy Co., Ont.

These are the grubs of long, narrow beetles which have the habit of springing up into the air when they are laid on their backs and on this account are called Click Beetles. A great variety of experiments have been tried but no satisfactory means has yet been discovered for getting rid of wire worms. They breed for the most part in old pastures. It is therefore important to practise a good rotation of crops and not allow land to remain for any great length of time in grass. When a field has been broken up, during the first year the worms feed on the remains of the grass that has been ploughed under, but in the second year they have nothing left except whatever crop may be grown and therefore they attack it. The grain that is hurt least of all is rye, barley comes next, and clover also is not much affected by them.

As these worms do the most damage in the second year after sod has been broken up, after rye or barley has been harvested, the land should be ploughed up so as to break the pulchre case of these worms and also to expose them to birds and other enemies. If clover has been grown and there are any wire worms in the soil it should be ploughed under in the fall in a similar manner. This will have the additional effect of fertilizing the ground. As these worms work entirely beneath the surface of the soil it is

impossible to get at them with any sort of poison. Salt has sometimes been recommended but it would take such a large quantity that sufficient to kill the worms would destroy any vegetation. Clean cultivation and short rotation of crops are the best means of keeping under control both Wire-worms and White Grubs.—Charles J. S. Reburne, Entomologist O.A.C., Guelph.

Officers Eastern Dairymen's Associations

The following is a list of the officers and members of the Eastern Ontario Dairymen's Association, as they appear in the illustration on page five of this issue. Reading from left to right on the rear row, those shown are as follows: Morden Bird, Stirling; J. W. Hyatt, West Lake, auditor; John McGregor, Alexandria; Napoleon Longtin, The Brook; Ed. Kidd, M.P., North Gower, Senator; D. Derbyshire, Brockville, (Hon. Pres.); G. A. Gillespie, Peterboro; Jos. McGrath, Mount Cuesney; Neil Fraser, Vankleek Hill; A. S. White, Sidnos Crossing; W. J. Kerr, Belleville, auditor; Angus Grant, Moose Creek; T. B. Carlow, Wellman's Corners. Those sitting in the second row, reading from left to right, are: Jas. R. Anderson, Mountain View; Sec. R. G. Murphy, Brockville; Chief Dairy Instructor G. H. Glendinning, Manilla; Pres. J. R. Dargavel, M.L.A., Elgin; 2nd Vice-Pres. J. H. Singleton, Smith's Falls; T. A. Thompson, Almonte; Jas. Sanderson, Kempsville; Miss. Kate C. Davies, Brockville Assoc. Sec.; G. A. Putnam, Toronto, Director of Dairy Instruction. The three sitting on the floor, reading from left to right, are: C. F. Whitaker, North Williamsburg; P. McDemrie, Avonmore; and Alex. Hume, Menie. Copies of the illustration may be had from Mr. Pinsonneault, Prescott, Que.

Renew Your Subscription Now.

TELEPHONE QUALITY WINS!

CANADIAN INDEPENDENT TELEPHONES have, during the year 1908, "made good" with hundreds of companies which had been using other makes. These companies are now using nothing but the **GUARANTEED INDEPENDENT TELEPHONE.**

Why is this? Because the Independent telephones are up-to-date and high-class in material and workmanship. It never pays to buy cheap goods, and in the case of a telephone this is especially true. The best is what you want, and that is why so many companies have changed from the makes they had been using to the **CANADIAN INDEPENDENT TELEPHONE,** and are now buying nothing else.

INFORMATION FREE

If you have no local telephone service, write us and learn the way many others have built up and now own and successfully operate their own systems. There has been a remarkable growth in rural telephone companies in Canada during the past year and the indications are that there will be a still larger increase during the present year.

The business and social advantages gained to rural communities with their own telephone system should command your earnest consideration, if you are not already enjoying the privileges it affords.

Municipalities, companies or individuals interested should write us and our engineers will supply full information. Estimates of cost of construction gladly furnished without charge.

PRICES ARE RIGHT

We are manufacturing telephones in Canada and with all our equipment you have the positive guarantee of a Canadian company.

We can also supply everything in line and construction materials at reasonable prices.

Best quality and prompt shipment are making our business a success



CANADIAN INDEPENDENT TELEPHONE CO., Limited, 26 Dundas Street TORONTO

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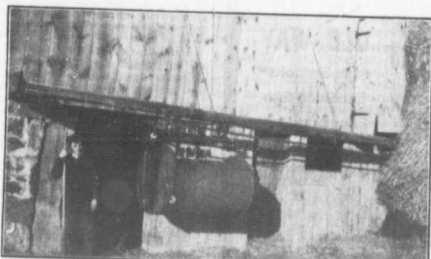
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One of The Labor Savers

Ivan M. Law, Durham Co., Ont.
Among the great labor-saving machines now placed upon the market to lessen the heavy labor of the farm probably none are so much and so constantly used as a good litter-carrier. Several times every day it is brought into use in cleaning out the horse stable, byre and pig pens. On a large farm without a litter carrier the work is slow and heavy.

The carrier shown in the illustration on this page has been in use upon our farm for six or seven years. It is a crude production compared with the neat malleable and steel carrier of to-day, but it was built for hard work and plenty of it. It has a larger capacity than those placed upon the market now, the box being four feet, three inches long, two feet, six inches wide, and two feet nine inches deep, inside measurements. A box of 15 has used it with all kinds of loads.

Three loads from the carrier fill a large sleigh box full enough for ordinary teams. With heavy wet manure we often take out 1,000 pounds at one filling, though we do not make a practice of loading it quite that heavy. We could never clean out the litter from our cows at a load, as some makers claim, with cars having a box of far less capacity. We use considerable straw in bedding and thus have three carrier loads and one team load of manure from 15 cows, steers and



A Labor Saver that has become Popular in Recent Years

The litter carrier has done much to lighten the labor of the stockmen. Wherever it has been installed it has made friends. The illustration was taken on the farm of Mr. Ivan Law, Durham Co., Ont. Read the adjoining article.

young stock and four calves each day. This with the litter from three horses and 20 or more pigs makes nine loads of manure a week. We aim to draw it out each week and spread it upon the field.

The carrier complete with one switch and two hundred feet of track cost us less than \$50. The carrier however, advanced in price shortly afterward. It was made by Lyman C. Smith of Oshawa, Ontario. About a year ago he sold his patents to Warton & Ward of London, Ontario, who now make the carriers. Farmers who consider manure to handle should think seriously of purchasing a large capacity litter carrier.

Get acquainted with
Black Watch
the big black plug
chewing tobacco. A
tremendous favorite
everywhere, because of
its richness and pleasing
flavor.

2266

Horse News from New Brunswick

Taking advantage of the clearance sales being made by the breeders of thoroughbred horses in Kentucky last November, due to the anti-gambling laws which deprived these breeders of a market upon the Race Track, the Government of New Brunswick sent an agent to these sales to see if any horses suitable for the improvement of the driving horses of the Province could be secured.

Mr. Peter Clyach of St. John, N.B., the well-known horseman, who, in the past has been a judge at the Montreal, Boston and New York shows, was the gentleman sent. He has secured at present three stallions and 17 mares of good size and splendid bone and conformation. Before these horses could be shipped from Kentucky quarantine regulations on account of the foot and mouth disease in the various States was enacted, and it was not until some three weeks ago that the purchase could be moved. The consignment arrived in good condition and on the 24th inst. were sold by public auction in the city of St. John.

A NOTED SIRE

Among others the purchase of the stallion, "Water Light," by George W. Fowler, Sussex, N.B., for \$3000 is worthy of note.

He is a splendid specimen of the English Thoroughbred; he is six years

gone to Debec, Carleton County where he will no doubt continue his good work.

Two Scotch bred Clydesdale Mares four and five years old, imported two years ago by the Government of New Brunswick from Scotland were re-sold on account of the failure of the purchaser to pay for them. One, Miss Bothwell, bred by William Bothwell, Berry Hill, Bridge of Don, Scotland, went to J. Sutton Clarke, St. George, N. B., the purchase price being \$300. The other Jeannie Wallace, bred by James A. Wallace, Clacrop, Kirkcubbin, Scotland, went to Nat. McNair, River Louisbourg, Restigouche County, for \$275.

H. C. Jewett, the well-known horseman of Fredericton, N. B., sold his splendid standard bred Stallion "Dan Gilbert," to William Alexander, St. John, for \$900.

Much interest is being taken by the horsemen of New Brunswick in breeding operations this year, and it is likely at their request legislation for the inspecting and licensing of Stallions will be passed at the coming Session of the Legislature.

Appreciates Farm and Dairy

That Senator W. C. Edwards, of Russell Co., Ont., appreciates Farm and Dairy, was shown recently, when he sent us \$9 and asked us to send Farm and Dairy to his address at nine different post offices in Ontario and Quebec.

The Senator is the owner and proprietor of a large lumbering concern, with offices at nine different post offices, all of which he regularly supplied with copies of Farm and Dairy, regularly throughout the year. We wish there were more men like Mr. Edwards.

**"Success" Light Draft
Roller Bearing Manure Spreader
for 1909
is greatly improved**

Just go to the Paris Plow Agent in your locality and examine the New 1909 "Success" Manure Spreader. You'll have no doubts about which machine to purchase after you've seen it and noted the improvements for 1909.

The drawings below illustrate the New Gear Case enclosing the Apron Driving Mechanism. The case is cut away so that you can see the Worm and Gear, which run in oil. This case not only prevents all "leakage" of oil but is dust-tight, too. This oil-tight, dust-proof case around the Worm and Gear makes the apron driving mechanism of the "Success" the smoothest and easiest-running, lightest-draft on any manure spreader. And as the Worm and Gear are so fully protected against wear they are rendered practically indestructible.

But just see the "Success," and note all its superior features. That's the right thing to do before making your choice of a manure spreader.

THE PARIS PLOW CO. LIMITED.

PARIS ONTARIO

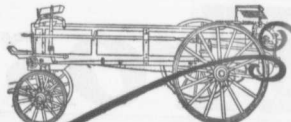
Western Agents: The John Deere Plow Co., Ltd., Winnipeg, Regina, Calgary and Edmonton, Quebec for Quebec and Maritime Provinces: Frost & Wood Co., Ltd., Montreal, Quebec, St. John, N.B. It is desirable to mention the name of this publication when writing to advertisers.



The Dain Hay Loader being a rake bar loader will meet all the requirements of a Hay Loader. It will handle the hay from the swath, windrow or coil under any reasonable conditions. It is a Rake as well as a Loader, as the hay can be taken up very clean right after the mower. It is durable, easily handled, generally called the one man Loader.

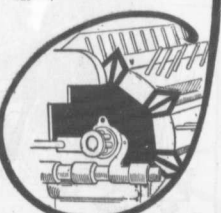
Ask your agent about it, or write us for special information.
DAIN M'F'G. CO.
Box 263.
PRESTON, ONTARIO

A CREAMERY FOR SALE
SHOULD BE ADVERTISED
IN OUR FOR SALE COLUMNS.



The bottom drawing shows Beater with Roller Bearing at end of Beater shaft. There is also another Roller Bearing at other end of Beater Shaft. These two bearings make the "Success" Beater a marvel for smooth and easy running—and materially decrease the draft. There are three other sets of Roller Bearings on New 1909 "Success." (Any Paris Plow Agent will show them to you). Their use lessens the draft of "Success" by at least one horse.

The large Black Teeth shown on ends of Beater are the Harpoon Teeth. These Harpoon Teeth cut up the long pieces of straw that would otherwise wind around the end of the beater and clog it up. And this is just another draft-decreasing feature found on no spreader but the "Success."



Testing Better than Showing

"I have done a lot of exhibiting at the leading fairs shows in the past," said Mr. G. A. Gilroy, the well-known Holstein breeder of Leeds Co., Ont., to a representative of Farm and Dairy, who called on him recently, "but I will pay me better to put my cows in the official tests. At a public sale of some of my stock, I sold a calf from a cow that had produced 26 lbs. of but-

ter in a week, for \$190. That calf would never have been sold for such a price had it not been for the big butter record of its dam. This dam would have had to have won a good many prizes at exhibitions before the calf would have sold for anything like that price.

"Farmers are beginning to look for the milk records of the cattle they buy. Of late, the letters I have received from parties wanting to purchase pure-bred stock, have almost

invariably asked for the milk records of the animals or of their ancestors. It is for that reason that I believe that breeders of dairy cattle are likely in future to find it more profitable to spend money putting their cows in the official tests than by exhibiting them at the exhibitions.

SHOWS ARE AN ADVERTISEMENT
"Of course, there is another way of looking at this. It is a great advertisement to a breed when a number of good animals are shown at a large ex-

hibition. People see them there and talk about them and thus the breed is benefited. On the other hand, showing cattle at an exhibition does not benefit them. They do not do as well afterwards.

After returning from exhibiting at the Dominion Exhibition at Halifax I found it almost impossible to get the cows back to proper milk production.

Our Veterinary Adviser

MANGE—My calves have mange. Please advise treatment.—G. E. H. LENOX and ADDINGTON, W. CO., Ont.

If you are correct in your diagnosis it is your duty to notify the Department of Agriculture, Ottawa, and your nearest Government Inspector. In fact you are liable to a heavy fine for not doing so. The inspector will take charge of the cases and quarantine your premises. Mange is a highly contagious disease and requires prompt measures. If your calves are simply suffering from eczema or other simple skin disease washing twice weekly with a warm five per cent solution of Zenoleum or Cooper's Fluid in water will soon effect a cure.

UTERINE DISCHARGE—Cow was bred in June last, and supposing she was in calf, she dried her some time ago. She is not showing symptoms of approaching parturition. The last two weeks she straggled a good deal and showed a fluid through the vulva. She passes more or less every day, and strains, and has apparent difficulty in voiding it. She eats well and looks healthy. She did not abort.—W. G. S. RUSSEL CO., Ont.

She either did not conceive or having done so, the foetus is dead and is being expelled in corruption. If she did not conceive she has leucorrhoea. You had better have her examined, preferably by a competent veterinarian, and if a dead foetus be in the uterus it should be removed. If there be no foetus the uterus should be flushed twice weekly with a gallon of warm two per cent solution of Zenoleum or Cooper's Fluid introduced with an injection pump and she should be given forty drops carbolic acid in a pint of cold water as a drench or sprinkled on her food three times daily until the discharge ceases, after which she may be bred.

Our Legal Adviser

RIGHT TO OUTLET—A has a hollow about two feet deep and 20 feet wide and 20 rods long, situated by a line fence which he wishes to drain. His neighbor B has a hollow alongside about 8 feet deep that is drained. In the spring, the surplus water, after a constant drip, runs in on B. Could A cut the line and let his water run on B, or put in tile and have an outlet?—W. G. S. RUSSEL CO.

"B" must submit to the water flowing on to his land from A, from natural causes; but A has no right by artificial means to cause the water to flow on to B's land without B's permission.

Protection for Farmers

Few farmers realize the great necessity for protection against accidents, which are so liable to happen on the farm. Different forms of machinery and the many new labor-saving devices now in general use tend to haste in work, and a consequent increasing probability of accidents.

Why not take advantage of our free offer and secure for yourself an up-to-date accident policy to the amount of \$1,000 for one year? This policy is absolutely free, on the one condition that you send us one new yearly subscription to Farm and Dairy, \$1. Bear our advertisement in this issue for one year; then secure a neighbour's subscription, which member, must be a NEW one, and thus secure for yourself the accident policy for \$1,000 for a year.

DON'T BUY GASOLINE ENGINES

UNTIL YOU INVESTIGATE "THE MASTER WORKMAN" A two-cylinder gasoline, Hercules or Lee to buy—Lies to Run. Quickly, easily started. Vibration proof, extremely heavy mounted on any tractor. It is a combination portable, stationary or traction engine. See our Catalogue. THE TEMPLE FENCE CO., Mfrs., Wexford and 15th Sts., Chicago. THIS IS OUR FIFTY-SIXTH YEAR.

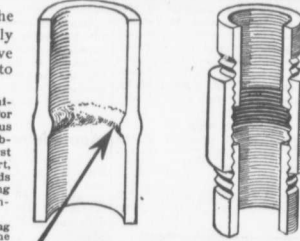
FROST Gates have the distinction of being the first made from steel tubing, and naturally their sale has been heavy. Of course they have been widely imitated, but that has only served to make them more popular.

Not being content with having "Frost" Gates imitated we have installed a modern galvanizing plant for coating the frames of all plain and fancy gates. Thus we are able to give them a more permanent and substantial finish than their imitations. The pipe is first put through a pickling process which removes all dirt, grease and scale, so that the galvanizing not only spreads all over the surface of the metal, but goes into it, filling up the pores and giving an even, smooth and exceptionally durable coating.

Furthermore, "Frost" Gates have the distinction of being the first in which the frame is not weakened by having the "thread" cut half way into the pipe in order to join it to the coupling. No "threaded" ends—no couplings—in "Frost" Gates. Instead the pipe sections are WELDED TOGETHER. The making the part that was heretofore the weakest now the thickest and heaviest. And by welding, the tubing is made continuous—the gates are free from unsightly couplings.

No extra charge is made for this wonderful welded improvement or for the more handsome and permanent finish—another reason why you should buy "Frost" quality in preference to other goods costing the same.

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Pipe Sections Threaded into Coupling.

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I own..... Cattle..... Hogs..... Horses..... Sheep
Name.....
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Why We Introduced Holsteins at Riverside

J.W. Richardson, Holbitt and Co., Ont

From the time the first acre was purchased by Mr. Richardson of what is now "Riverside Farm," some 40 years ago, we aimed to farm well and to add to the fertility of the farm. The soil previously had been heavily cropped and nearly all the grain and hay sold. The importance of using live stock as a medium between the farm crop and the saleable products, received proper recognition. In place of selling grain, we fed it to beef cattle, hogs, and cattle of dairy type. A pure-bred sire of one of the large beef breeds was used. The milk production of the herd year after year decreased, although better care and feed was being given the cows. At the same time it was found, that the dairy end was returning the largest revenue. The steers that were raised and turned off to beef, we found did not bring returns equal to the pasture, hay, and grain consumed, when valued at market price.

About this time we started to weigh and test each cow's milk, at least once a week. We found that a number of cows were making cow rets, others were kept at a loss. This was a serious state of affairs, as in the meantime more land had been purchased, and a mortgage now stood against the farm. For several years at the end of each 12 months it was a fact that the farm had barely paid expenses and interest on investments. Under these conditions we were forced to make a change. The dairy end of the business had been paying most so we decided to place a dairy sire at the head of our herd. We found that we must specialize in our business. We noticed that almost all other successful commercial enterprises were run on some special line, and concluded it was time we cut out the unprofitable

part of our farming operations. We selected the Holstein, because she was the largest of the dairy breeds, strong in constitution, able to consume large quantities of rough, pail. We began a systematic weeding out of our beef cows. We selected one of the best pure-bred Holstein sires that we could purchase, and began The returns from our beef and dairy cows, marked. As soon as we were able, we made a selection of pure-bred herds from several of the most noted States. About this time we had a sale of 12 head of grade Holsteins, that in the season had produced from 5,000 to 10,000 lbs. of milk. At this

Good Advertising Medium

We appreciate the value of Farm and Dairy as an advertising medium. It is a clean, bright interesting paper and should be in the hands of every dairyman.—The Steel Trough Machine Co., Limited, Tweed.

sale these grade Holstein cows sold at an average of over \$10 each more per head than what other grade cows were selling for in our neighborhood. This was a surprise to many, who thought should be in the hands of every dairyman.—The Steel Trough Machine Co., Limited, Tweed.

It is now 17 years since we commenced breeding Holsteins. The mortgage, which was a monster, at that time, and which had continued so long as we kept the general purpose cow and her offspring on our farm, had disappeared since we selected the special purpose cow in the Holstein-Friesian.

Nova Scotia Seed Fair

The fourth annual Seed Fair at Berwick on February 24, 1909, was a great success. In spite of the storm the afternoon meeting was crowded with men and women. In the evening the storm became very violent, and, notwithstanding that the hall gently swayed with the wind, and cracked with every fresh gust, like a ship in distress, while several big trees were snapped off in the neighbourhood, a splendid and enthusiastic gathering again assembled to hear Dr. Standish lecture on horses. Owing to the fury of the gale Messrs. W. H. Woodworth and L. D. Robinson did not address the meetings.

The Seed Branch of the Dominion Department of Agriculture provided the judges and lecturers for the fair, while the Provincial Department of Agriculture at Halifax furnished the money for the prizes.

Mr. S. J. Moore, while judging the beans, said that they were the best in samples he had ever seen, and that the worst of the oats on exhibition were better than he could buy in the stores. The competition in buckwheat was very keen, chiefly in the common variety. There was a small but excellent exhibit of sweet and yellow corn, also onions, but no one entered peas.

The apple show was somewhat smaller than last year, but was of excellent quality, while there were about 70 entries of potatoes.

Mr. Moore briefly addressed the meeting before taking the train to attend another seed fair. Dr. Standish succeeded him and occupied the platform until the closing. The doctor spoke about horses and cattle in general, their management, diseases and modes of treatment. His address appears elsewhere in this issue.—Eunice Watts.

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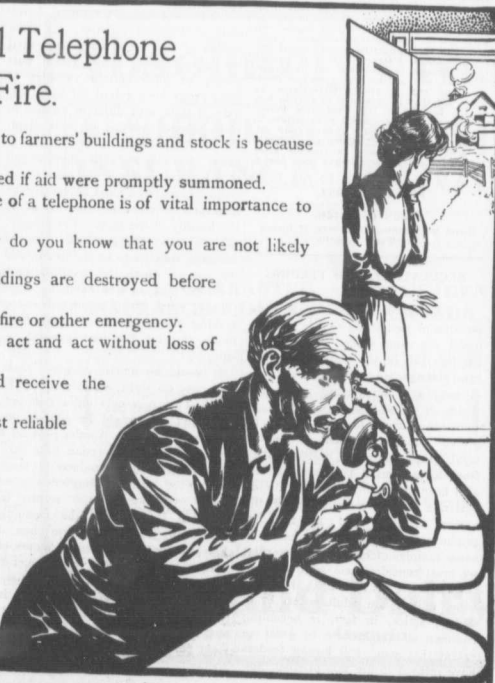
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AND RURAL HOME

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The paid-in-advance subscriptions to Farm and Dairy exceed those for the circulation of each issue, including copies of the paper sent subscribers who are but slightly in arrears. The average circulation varies from 9,400 copies to 12,000 copies. Subscriptions, unless renewed, are discontinued as they expire. No subscriptions are accepted at less than the full subscription rates. Thus our mailing lists do not contain any dead names.

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

OUR PROTECTIVE POLICY

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

FARM AND DAIRY

PETERBORO, ONT.

TORONTO OFFICE:
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REGULATE SALE OF FEEDING STUFFS

A wide variation exists in the composition of feed stuffs sold in Ontario under the same name. From Bulletin No. 138, of the Ontario Agricultural College, we find that in the case of pea bran the amount of protein varies from a little over seven to something over 15 per cent. In gluten substances, such as gluten meals, the amount of protein varies from 15 to over 34 per cent. It has also been shown that there is a wide variation in the composition of the various materials sold as mill by-products, also that the proteids in some samples of bran are so low that we must consider them adulterated.

Evidence is not lacking to show that some millers are adulterating bran. This practice, in fact, is becoming common of late, and to so great an extent that some well known feeders have refused to use this product, not

withstanding its value when unadulterated.

With mill products, other than bran, the names under which they are sold mean but little to the buyer. The product of different mills varies so much in composition that its name does not signify as much to the purchaser as it should. These foods should be sold subject to a guarantee.

The Dominion Government at Ottawa should enact a law somewhat similar to those in operation in a number of the States of the American Union. In some of the States, the law demands that the miller have placed on the bag the number of pounds of substances contained in the bag, the maximum amounts of proteids and fat, and the minimum amounts of crude fibre, and also a statement of the grains from which the food is prepared. Such a statement would give the farmer a definite idea of the value of the food stuffs he purchased.

A deputation appointed by the Ontario Agricultural and Experimental Union, is shortly to wait on the Hon. Sydney Fisher, Dominion Minister of Agriculture, with a view of having such a law enacted. We can assure the Dominion Government that in the light of recent investigations and analyses made of commercial feeding stuffs, that the best interests of our farmers are concerned in this matter, and it is imperative that a law regulating the sale of these products be enacted.

INFLUENCE OF VARIETY ON PRODUCTION

There is a great difference in the yield of different varieties. As some breeds of live stock have been bred for many years to fill certain purposes, so have certain varieties of farm crops been raised for long periods of time with different objects in view. Some varieties are well adapted to rich, loamy soils, others to heavy clay soil, and still others to soil of a light character. The selection of crops to be grown must necessarily be governed to a considerable extent by the locality of the farm. The climate, the soil, and the particular kind of farming that is to be followed, and the use to which the resulting crop is to be put, as well as many other things, must be considered when making the selection of crops most likely to give the best general results.

It would be unwise to grow Joannette oats on light, weak soil, or the Black Tartarian oats on a rich bottom land. It would be equally unwise to grow White Wonder peas on a weak soil, or the Prussian Blue variety on land that produces a large amount of straw. Longfellow corn would give much better results in Northern Ontario and the Leaming variety in southern Ontario than if this order were reversed. Scores of similar instances may be enumerated. Great differences exist between different varieties of grain crops in length of straw, strength of straw, and quality of grain, as well as in yield per acre and in many other respects.

Varieties tested at Ottawa or at Guelph may not do equally as well when subjected to the peculiar conditions of a particular farm. Ontario farmers can, however, profit much from the experiments carried on over Ontario, under the direction of the Experimental Union. The results of these experiments are available to all who apply for them. A farmer who looks carefully after his own interests will give a considerable amount of attention and study to this question, and make sure that he is growing a variety best suited to his land, and to the purpose for which it is grown.

KNOW WHAT YOU ARE KEEPING

It is difficult to understand why it is that in spite of the information available as to the great value of systematic testing cows, cow owners continue to think that it is the other fellow that has poor cows. Too true it is, but are you sure that your herd would not be benefitted, and your returns increased, by systematic testing? The number of cows one keeps is no indication of his income, though they do tell us in a measure the size of his expense bill for feed and labor. Our dairymen have not given this matter due consideration.

It is much better to have ten cows, each yielding 6,000 pounds of milk annually, than to have 50 cows which yield only 3,000 pounds annually, which latter is the yield of the average Ontario cow. The soundness of this statement is not apparent on the surface. Figure a little on interest of investment, and cost of extra care and interest of investment of extra farm land necessary to keep the extra 50 cows. You will then become convinced of the truth of this argument. The profit must come from the margin at the top.

If ten 6,000-pound cows are to be preferred to fifty 3,000-pound cows, surely it is high time we knew which class we are keeping. Granted that we already know what our own are doing, we are not doing our duty if we do not organize a cow testing association for the benefit of that neighbor, who perhaps is not blessed with as much light or as much information as we, but who can just as well feed good cows as poor ones, did he know the difference. It is a simple matter to organize a cow testing association. The Dairy Commissioner at Ottawa will be glad to supply record blanks for yields of milk, and to assist in organizing cow testing associations. With the advent of spring, cows will be freshening. If you have not already done so, organize an association in your community now. It will prove a lasting benefit to all who are privileged to be connected with it.

ILLEGITIMATE TRADE IN BUTTER

It is stated that there are concerns in some of our larger cities that regularly buy quantities of tub butter, and by means of a skilful process of renovation and subsequent printing of the butter, give it the appearance of creamery butter, and sell it as such. By means of this practice, they are

enabled to take advantage of the extra price received for creamery butter, thus allowing them a good margin for their enterprise.

This business should be suppressed. To allow such an industry to thrive here in Canada, is not fair to our creamery men, nor to the consumers, who in buying creamery butter justly suppose that they are getting a first class legitimate article, manufactured in an honest way in a creamery. The Dominion Dairy Division should deal with this matter without delay.

FAVOR AUTOMOBILE LEGISLATION

In the February 25th issue of Farm and Dairy, we offered to print a petition form asking the Ontario Legislature to pass some stringent form of legislation, which will effectually protect farmers from reckless parties who race their automobiles on the country roads without regard to the rights or convenience of others. This petition was to be printed on condition that at least 20 of our readers will write us that they will undertake to circulate the petition. As yet we have failed to receive the number of replies asked for. Can this mean that our Ontario farmers have no interest in this matter? Are they content to allow autos to drive them and their women folk from the roads, as they have done for some time past?

Some of our readers have come out strongly in favor of petitioning the Legislature for legislation stringent enough to regulate the automobile nuisance. Here are a few extracts from their letters:

Mr. F. Birdsall, Peterboro Co., writes: "Farmers should have at least two days in the week that any member of their families can drive on the roads without risk of being hurt or killed. As it is now, my wife, who would be very fond of driving, will not venture on the roads in the summertime, for fear of meeting an automobile. We have built most of the roads, and it is not right that we should be driven off them. Send me a petition, and I will get you many signatures."

Mr. J. W. Robbins, Prince Edward Co., writes: "If you send me a copy of your petition concerning automobiles, I will see what can be done in this locality towards securing signatures to it."

Mr. B. H. Hynchman, of Thunder Bay District, writes: "If you will send me a petition form, I will do my best to get it well filled in. While we have a lot of men here using automobiles with from reasonable to great care, still we have others that should be serving a term at Kingston."

We received a letter from Mr. J. H. Caldwell, Carleton Co., who was so unfortunate during the past summer as to be seriously injured in a mix-up with an auto on the highway near Ottawa. Mr. Caldwell was driving a team when the auto approached. He held up his hand, signalling them to stop. They took no notice of it, however. His horses reared, broke the neck-yoke, and in the fracas which followed, Mr. Caldwell received injur-

ies that have necessitated his being under the doctor's care ever since. Those in the auto took no notice, whatever of the accident, but sped by at a terrific speed. Mr. Caldwell decided to have them brought up in court. There were five in the automobile. All five swore that their machine was running about 15 miles an hour, that they slowed up on meeting Mr. Caldwell, that Mr. Caldwell did not hold up his hand to signal them to stop, and that his horses showed no fear, and were standing like lambs. After the facts were all in, the magistrate imposed a fine of \$10. Mr. Caldwell, in his letter, continues: "I had spent the most of two days in getting this case ready, and had employed a first class lawyer, without which the case would have been dismissed with costs. The case cost me nearly as much as it did the motorists. Had I been alone, I could never have shown up in court. As it was, they had five witnesses against my three, and they were utterly reckless of their word or oath."

More might be said. All farmers are more or less familiar, many of them from sad experience, with the recklessness of automobilists. If anything is to be done in the matter of obtaining legislation to regulate this nuisance, it should be done now. If you are interested in this matter, and will circulate a petition, write us to this effect at once. As soon as we receive 20 replies from those who will circulate the petition, we will have them printed, and the good work can be started forthwith. If you wish anything done in the matter, write today. Do not wait for some one else to do it.

How to Treat a Man

By A. Horse.

When a man drops from sheer exhaustion or illness, promptly seize an end-board or a cart-stake, and pound him on the head and on the ribs. If this does not fully recuperate him, kick him violently in the stomach. This treatment will restore him if persistently adhered to.

If a man finds his load too heavy, and feels that it will seriously strain him to proceed, kick off a fence board and knock him down and then hammer him thoroughly. This will give him renewed energy, and he will make no more fuss. But do not on any account reduce the load.

If a man refuses to drink when you give him water, do not give him any water for two days. That will "teach him" to be thirsty at any time you find it convenient to attend to him. It is a good plan to vry the who fre quently on a man who is at work. No matter if he is doing his best, hit him now and then on "general principles," and to prevent him taking any command. If his load is not heavy, oblige him to go much faster to make up for it.

"Te your man's head back in an unneutral position with his eyes toward the sun. This will give him a "fine appearance" and prevent stumbling. In winter remove his clothing to "prevent his taking cold." He will also treaky quicker when you overwork him. Men thus treated are "much healthier" than when allowed winter clothing."—W R. Gilbert in "Rider and Driver."

I am decidedly pleased with Farm and Dairy.—C. L. Shaver. Sask.

Creamery Department

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

Higher Prices For Dairy Products in the U.S.

The products of the dairy cow in the United States are valued to-day at close on to \$800,000,000. The increase in value in recent years has not been due solely to an increase in the number of cows but to the advance in price. The mean factory price of Elgin butter in 1899 was 19.96 cents, in 1907 it was 28.5 cents and in 1908, 27.16 cents a pound. The price of city milk has also advanced. The wholesale price in Chicago and New York, respectively were 10.5 and 10.112 cents per gallon in 1899; 12.24 and 11.76 cents in 1905; 14.375 and 12.886 cents in 1907 and 15.16 and 16.62 cents per gallon in 1908. These prices, of course, are for the measure in use in the United States or a gallon of 8 pounds.

Dairying in Brazil

During recent years dairying has made rapid progress in Brazil. There has been an increased demand in the large cities for dairy products. Ten years ago it was impossible to buy a glass of fresh milk in any shop in the city of Rio de Janeiro. The source of milk used by the householder was the milk cans milked at the door of those who wished to buy. This has been changed to a large extent and more modern methods of distributing milk have been adopted, though in some places the old plan prevails.

Though the use of dairy products has increased, the amount of butter imported has decreased to nearly \$200,000 worth in the two years 1906 and 1907. The home supply to-day is nearly sufficient to supply the demand and in a few years, Brazil may be in a position to export butter. The rapid development of dairying makes that country good working ground for the dairy supply man. Swiss churns and separators are used almost exclusively in some sections.

Building Cold Storages

In erecting cold storages at Creameries proper insulation is the important thing to be considered. If the temperature in cold storage cannot be controlled it is of no use. The following article on this question from the New York Produce Review is to the point. It is written by an Ohio Creamery man:

Creamery walls should be built of two or more thicknesses of material, so there will be dead air spaces in the walls. Such air, if free from cracks or places for air to circulate, affords sufficient insulation for a creamery against the summer heat and the cold weather of winter. Where it is desired to use brick or cement blocks to build a creamery, if the hollow kind is used the walls will be satisfactory.

For the refrigerator it is usually desirable to go to a little more expense and build the walls to keep out as much heat as possible. Three thicknesses of matched lumber with a four-inch space between each thickness does very well, but can be improved by packing the air spaces full of shavings. In building a wooden refrigerator use one thickness of building paper for each thickness of lumber used. Sawdust will do instead of shavings if it can be kept dry, but if it becomes water-soaked it is worse than useless.

Many refrigerators are built with poor doors. They should have two doors, an outer and an inner one, so arranged that when going out or in, one of the doors is opened and closed



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Peterboro, Ontario

again before the other is opened. The doors should be closed with padded edges so they will close tightly.

Mineral wool is a good insulating material, for it has advantages not possessed by shavings—rats do not bother it, and it does not burn or decay. Where there is unusual danger from fire, the refrigerator—and also the creamery building—can be built with an outer coating of wall of cement, mortar or concrete.

Competitors and Dairy Exhibitions

"I have frequently noticed," said Dairy Commissioner J. A. Ruddick, to a representative of Farm and Dairy recently, "that large exhibitions at which cheese and butter are shown do more harm in some respects than they do good. While it is true that such exhibitions lead some cheese and butter makers to put forth a special effort to win prizes, still the after-results, unless the prize winners are unusually level-headed, are apt to be disastrous. It too often happens that when a maker wins a big championship, he begins to think that he knows it all and that there is little more that he can learn. He gets the idea that he is the best man in the country, and that nobody can teach him much that he does not know. This, I believe, is one of the reasons why there are very few makers who are successful competitors for several years. After they win one or two prizes, they become careless and are unable to win again.

One of the most successful prize winners and one who has not allowed her winnings to prevent her repeating her successes, has been Miss Morrison, of Newry. She is by far the most successful exhibitor we have ever had at exhibitions in Canada. Miss Morrison has won more prizes than any other maker in the country.

Some Causes of Bad Butter

At Cornell University a monthly competition in butter scoring is held. The main defects in the butter shown in the October competition were in flavor and color. The causes ascribed for the defects are so similar to those we hear talked about here, that they are worth repeating. Several samples had an old-cream flavor, indicating that the cream had been kept at least two days before churning. This practice is somewhat common in the fall and winter. In many instances the cream is neglected, and the butter quality suffers. If it is necessary to hold cream for more than one day, it should be kept at a very low temperature, and too much lactic acid should not be allowed to develop before churning. Several competitors, in their anxiety to preserve a perfect grain or texture in the butter, did not have the salt properly dissolved and worked into the butter, and consequently the color was mottled. The mottles could have all been prevented by allowing the butter to stand for a short time after the salt had been applied before giving the butter a final working. Commercial starters are now generally used by most butter-makers, and when these are good, the flavor of the butter is of a characteristic and desirable nature.

Dairy Notes

Mr. Edward Weir, of Roseneath, writes that he is rebuilding his cheese factory which was burned about a year ago. He says that he knows that Farm and Dairy will be of great help to him in securing a good cheese maker.

It costs less to produce a pound of butter fat than a pound of beef. Notice the difference in price.—W. F. Stephen, Huntingdon County, Que.

Cheese Department

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

Cheese Making in Manitoba

N. J. Kuneman, M. A. C. W. Winnipeg.

The dairy industry in Manitoba during the past season was quite encouraging. It was a most satisfactory one from the producer's standpoint, as the market for butter and cheese throughout the whole season was good. This was particularly so with cheese, which started out at about 11½ cents and kept advancing right along, every 15 days finding a change, an at one time, 12½ to 13½ were the prevailing prices. Last season the demand was in excess of the supply.

The fact that the cheese output has increased has likewise increased the income of the manufacturers to a certain extent, although there is a deduction to be made from this as they were obliged to pay more for their supplies. Boxes were about one and one-fourth cents higher than the year before and all other supplies were slightly higher. When we consider this and figure it up, we find that the increased output does not come up in value to the increased values of supplies. A year ago there was some talk of raised prices for manufacturing. The farmers, however, raised great objections, consequently some of the manufacturers did not feel inclined to fall in with this scheme. They thought that possibly they would get some of the other fellow's patrons if he (the other fellow) raised his price.

We fail to see why the manufacturer should not get a slice of the increased value of cheese that has prevailed the last few years, because when his

present price of manufacturing was set some years ago, cheese was selling at from about eight to 11 cents and he was getting his supplies about 20 per cent it all. He should realize that it is through the factoryman that he is enabled to obtain this increased price for his raw material.

The quality of the cheese made last season showed considerable improvement, with the exception of flavor. This was also true of the butter made, which, in most cases, had a more or less bitter flavor, due to the cows eating dandelions, of which there was a good growth right from the start of the season. There were some other off flavors also. They were not as bad nor as numerous as in other years but as they should have been owing to the fact that we had considerable warm weather. Again, most farmers were very busy and they did not give their milk the attention that they should. Consequently, we found a number of under-quality cheese in many or most cases, though the makers are to blame for not raising such milk. In some cases the maker hustled his work along by using an excess of starter, consequently we had some weak, acidic and pasty cheese. This is regrettable as we usually look for the finest cheese of the season during September. Taking it all through, however, the workmanship showed improvement.

One thing, however, that was practiced and abused more so than in many previous years was the shipping of green cheese. This practice cannot be too strongly condemned as it works great injury to our markets. In an unsecured state, it is only curd. When a cheese enters the curing room, it is only half made. As a large cheese shrinks from two to four pounds in a month, somebody is a loser on the deal when cheese is shipped green.

Buyers are largely to blame for the

SHAKE-SHAKE-SHAKE-No Stopping It

YOU can buy any one of many kinds of common "bucket bowl" cream separators and be positively certain the "bucket bowl" will eventually shake itself certain it will never shake.

Here's the Reason:

COMMON "bucket bowl" separators have a heavy "bucket bowl" set heavy end up on top of a spindle which is held up by several bearings. The weight is above the bearings. Such bowls constantly try to tip sidewise. If they did not want to tip, why have bearings to hold them up? This tipping wears the bearings, allows the bowl to shake and eventually wracks the machine, causing expensive repairs or the purchase of a new machine. There is no way to prevent the "shakes" in common "bucket bowl" machines.

YOU can surely avoid a shaking separator by getting a Sharples Tubular. Sharples Separators are entirely different from all others. They have light bowls, hung below a single frictionless ball bearing. Being hung naturally, with their weight below the bearing, Sharples bowls can not and do not tip sidewise, shake or vibrate.

SHARPLES bowls run as smoothly after 20 years use as when new. Tubular bowls weigh just about half as much as common "bucket bowls," yet wear many times as long.

SHARPLES separators are the only kind with suspended bowls fed through the bottom—the only kind that do not get the "shakes." Our patents prevent others from making them.

THE manufacture of Sharples Tubular Cream Separators is one of Canada's leading industries. 1908 sales were far ahead of 1907—way beyond any other make, if not all other makes combined.

Write for catalog No. 253. It will interest you.

The Sharples Separator Co.

Toronto, Ont. Winnipeg, Man.



Sharples Separators are most easily and perfectly oiled. Simply pour a spoonful of oil right down among the great gears once a week. The lower gear wheel, when in motion, sprays the oil over the gears and the single, frictionless ball bearing supporting the bowl. Most convenient, insures perfect oiling with least loss of oil, and adds wonderfully to the ease of running and greater durability of Sharples Separators as compared to others.



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practice of shipping green cheese. If they would refuse to take any cheese under 15 days old, there would be more general satisfaction and better results would be the outcome to the trade. During the next season we endeavored to get buyers together on this point and to have them buy on grade. Our efforts were without avail. Some maintained the view in order that they get the amount they required, they had to take all at the same figure. If they were to buy on grade, they would not get cheese at all; the other fellow would take it regardless of the difference in quality and maturity. This is a nearsighted and childish idea as all seem to have the same yarn. If all would come to an understanding and abide by it, they would be doing a great favor to themselves and to the consumers.

A number of improvements have been made in the factories during the past season. These improvements are general. The most noticeable improvement is that of elevated whey tanks. Where these have been installed, there has been less trouble in whey flavors. The elevated tanks are easily kept clean. Some new factories were in operation this past season and most of them had good runs. Summing up the whole situation, we can confidently say that we have made satisfactory progress.

The Cheese-maker's Wages

There are so many conditions governing the prices paid for making cheese that it is difficult to arrive at a basis that would apply to all conditions. As a rule in most of the large well-equipped factories, makers are being fairly well paid for their services—none too well-paid, however, and a little advance would encourage more good men to remain in the business. The maker in charge of a large factory where from 100 to 200 tons of cheese are made in the season, deserves to be well-paid. He assumes large responsibility and more skill and intelligence are needed in successfully managing an up-to-date cheese factory than in most manufacturing industries, where managers are much better paid.

But it is in the small factory where the amount of milk received is small particularly that makers are underpaid. And the reason why they are underpaid is because the business will not admit of any higher wages. The remedy lies in combining these small factories and concentrating the business into larger, better-equipped concerns, where a sufficient wage can be paid to secure the services of a competent man. There is economy in this for the patrons too. Even though the milk is better paid, there is more business done, and the cost to each patron is not so large as it is in smaller factories under poorly paid makers.

GET RID OF SMALL FACTORIES

If patrons, factory-owners and makers alike would cease this useless competition and get together they would make money in pocket. A better quality of cheese would result from their co-operative effort. This cutting into each others' territory and investing money in a factory at every cross road is a business yet to be means a lot of poorly equipped small factories, whose owners get no return on their investment and whose cheese-makers are often a precarious living with little or no incentive to do good work. A well-paid maker who is putting by a little every year, will do better work and render better service to those who employ him than a maker, equally competent, who at the end of the season has nothing at the good and who may consider himself

lucky if he pulls through without any debt to boot. The solution is to get rid of the small cross-roads factory. Makers can do considerable towards effecting its removal, by refusing to accept the more pitance in the form of wages that is offered for their services.

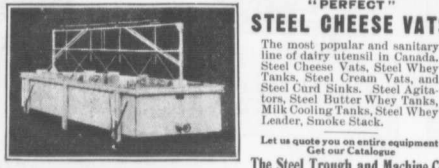
IN A DECREASED OUTPUT

In all fairness there should be some scale of prices fixed so that a maker would receive higher wages when the price of cheese is high than when it is low. As the past few years have shown, it is the falling off in the make of cheese, that is largely responsible for the higher prices which have prevailed. Where the maker is paid according to the quantity of cheese made he loses when the make falls off and the price of the finished article advances, though in some instances the advance in price encourages patrons to send more milk. The increase from this cause, is, however, hardly ever sufficient to make up the loss to the maker by a general falling off, which has brought about the higher prices for cheese.

A SATISFACTORY SYSTEM

There is a cheese factory in New York State that for 27 years has been paying its maker according to the price that the cheese made sells for. This system has worked out very satisfactorily. The maker is paid at the rate of 10 per cent. of the money received for each sale of cheese. The maker to do all the furnishing and insure the cheese. Thus when cheese sells for 10c a lb., the maker is paid 10c at the rate of \$1 a 100 lbs. of cheese made. When cheese sells higher than 10c the maker gets more per 100 lbs. for making, and when it sells at a lower price, his rate for making is not so high. If this plan were adopted in Canada a percentage rate for the money received from cheese sales would have to be worked out accord-

"PERFECT"
STEEL CHEESE VATS



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The Steel Trough and Machine Co.
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ing to the size of the factory and the amount of milk received. It is worth considering, however, and might be a better system than the one now in general use for paying makers. It would be an incentive to makers to make a quality of cheese that would command the top price. It would tend to decrease waste in cheese and cause more care to be exercised in selling cheese locally and to the patrons.

What do makers and others interested think of the plan? We would be glad to have their views for publication.

Dairy Jottings

Cheese-makers must be alive and awake in order to keep pace with the producers.—Dairy Instructor Ward.

I would like to see the farmers of this country get into the habit of having their milk paid for according to its butter fat test. Paying for milk by weight is absolutely unfair to those patrons whose milk tests high. High testing milk is worth more than low testing milk.—G. G.

Publish, chief dairy instructor, Kingston, Ont.

When a farmer puts water in his milk and sends it to the factory he is hauled up in court when found out. When a man sends dirty milk to the factory it reduces the value of the good milk of all the rest of the patrons and yet that man is not touched although his milk does more damage than pure milk that has been watered. — Senator D. Derbyshire, Brockville, Ont.

FOR SALE AND WANT ADVERTISING

TWO CENTS A WORD CASH WITH ORDER

WANTED—A man with one or two years' experience in cheese factory for seven months. Apply stating wages wanted, to J. R. Donn, Birnam, Ont.

FOR SALE—A cheese box factory outfit complete, including delivery wagon. Apply, Box 23, Farm and Dairy.

IF YOU ARE LOOKING for a position, place an advertisement in this column. The cost is small—returns large.

FACTORY OWNERS should advertise for help in this column. Reply by nearly all cheese and butter makers.

I. H. C. CREAM HARVESTERS

HELP MAKE BETTER CALVES




THERE are indirect as well as direct benefits in using I. H. C. Cream Harvesters.

Everybody knows that the Cream Harvester will save labor, save time and get more butter fat out of the milk than you can get by hand skimming. These are direct benefits. They are the most persuasive reasons why every dairyman should have a cream separator.

But an indirect benefit, hardly less important, is the better calves you can raise.

When you skim by hand the calves get the cold, tasteless, sour skim milk that has but little life in it.

If you haul cold milk to the creamery and take back your portion of the skim milk to feed your calves, it is even worse. In addition to its being stale and lifeless you take grave chances of introducing tuberculosis into your herd.

If you have an I. H. C. Cream Harvester, you separate the milk while it is warm and fresh. The calves, and pigs and chickens get the skim milk before it is stale, cold and sour. A little oil meal added to this appetizing skim milk makes it an ideal food, practically as good as the whole milk.

I. H. C. Cream Harvesters are very close skimmers. The saving in cream alone by using one of these machines goes far each season toward paying for the cost of the machine if you keep a number of cows.

There are two styles of I. H. C. Cream Harvesters, the Dairymaid and the Bluebell.

Dairymaid Cream Harvester

—This machine is chain driven, and it is made in four sizes—350, 450, 650 and 850 pounds capacity per hour.

Get either of these separators and you will get more butter fat out of your milk than you are now getting. You will get more nutritious and appetizing feed for your calves. You will save your time. Investigate fully by calling on the International local agent and examine the I. H. C. Cream Harvesters in handies, or, if you prefer, write to nearest branch house for full information.

CANADIAN BRANCHES: Brandon, Calgary, Edmonton, Hamilton, London, Montreal, Ottawa, Regina, Saskatoon, St. John, Winnipeg.

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Chicago, Ill.

CHEESE FACTORIES FOR SALE SHOULD BE ADVERTISED IN FARM AND DAIRY.



110 man is born into the world, whose work is not born with him. There is always work and tools to work withal, for those who will. And blessed are the horny hands of toil. The busy world shoves angrily aside, The man who stands with arms akimbo set, Until occasion tells him what to do. And he who waits to have his task marked out, Shall die and leave his errand unfulfilled.

J. R. Lovell

The Home Coming of Melinda

Nellie Gilmae.

MARK my word, Mrs. Branham," and Lydia Martin drove a determined stitch into the letter she was embroidering, "Melinda's coming will be more of a disappointment than a pleasure to you."

The tired-faced little woman looked up from her mending with a puzzled, wounded look clouding her gentle, mouse-brown eyes. For a second, something clear and sparkling hung dependent on her flickering lashes; then suddenly made a single glistering track down her cheek. "You don't know Melinda, Lydia, if you say that." There was conviction enough in her voice, but it trembled slightly under its veneer of calmness.

"Don't know her, Kate Branham!" Miss Lydia's scissors clattered to the floor in her consternation, "How in the world can you make such a remark when I pinned the very first slip on the child, taught her her A B C's and helped to make the graduating dress with my own hands?"

Mrs. Branham lifted a hand of good-natured depression. A faint wave of pink colored her face for a moment. "I know. You've done all that and a vast deal more, Lydia. You mustn't think that I do not appreciate what a real friend you have been to us, or that I undervalue your opinion. But just a word in Melinda's defence. You've scarcely seen her since she was a girl of fifteen, the year she finished at the Brookside high school. Her four years at Wellesley, and this last one in Europe, have changed her—made a woman of her, and—"

"That's just it, Kate—they've changed her. It isn't the girl's fault, of course, but can't you see that all this goes to prove my point exactly? If you'd never gone to New York to live, if she'd stayed out of college, and the European tour had not been planned, maybe things would be different. As it is—"

She broke off with a significant uplifting of her straight black brows.

The little mother looked up with a gasp. "You mean you think all this spoiled my girl?" she asked tremulously.

Miss Lydia shrugged. "Now don't go and get sentimental, Kate. No girl is proof against it. You couldn't call it a fault, or a shortcoming, you know—but just a natural result of her training. Use a little common sense. Unlimited pocket money—a favorite

at college—clothes in ridiculous quantities—every wish gratified—a small fortune in a trip abroad. Would anybody reason expect such a pampered creature to cheerfully settle down to this?"

Mrs. Branham swept the room with disconsolate eyes. A gentle sigh escaped her. "You're right, Lydia," she said slowly, "You are right—as always. She wouldn't be human, would she? On my blindness and joy of seeing her so soon, I quite lost sight of what a shock it will be to her. Of course I drowded telling her about Mrs. Branham's losses, but it never occurred to me that she would be the chief sufferer by them. Indeed you are right. When she left home, her father was a rich man; she will return to find him a pauper. Her voice broke on the last word and she covered her face with her hands to hide the swelling tears.

Miss Lydia kept tactfully silent a moment; she carefully put aside her embroidery, tumbled and scissors, and came up to the other's chair. She laid a re-assuring row of square fingertips on Mrs. Branham's slender shoulder and said: "Never mind, Kate, I've figured it all out for you. I knew just how wrapped up you'd be in the girl's coming, and no time for practical thinking. And this is what I have decided: we must get to work as soon as ever we can and fix this room up for her. It has more windows than any other, and there's always plenty of sunshine in it. I have a neat little bird's-eye maple dresser, I'm not using, and you're welcome to it. It will just match the desk and washstand! Then we can take one willow chair out of the parlor and the table from the back of hall to finish up. The blue iron bed and you're welcome to it. I'll just do myself. Huh, now, don't interrupt me, of course Melinda's not that sort of a girl, but it won't do any harm to be diplomatic. You've had plenty of time to realize the situation gradually, and you're older and more philosophic. Melinda's the apple of your eye—you needn't deny it—and I'm trying to make it easy for you to make it easy for her. Don't you see?"

Mrs. Branham caught her breath, she looked up with Miss Lydia's keen black eyes with a wordless gratitude shining in her own. "You've more tact in a minute, Lydia, than has been given to me in a lifetime. I leave everything to you."

Miss Lydia took the chair opposite and proceeded: "I'll bring over that bolt of muslin in the morning, and we can frill up some curtains in no time, working together. After dinner to-day, I'm going to send Hester here to help you get this room cleaned up."

"But—but you're too generous, dear; I couldn't let you—"

"I'm not asking your permission, Mrs. Branham. My motto is: 'First find out you're right, then go ahead.' You've heard it, haven't you? I've told all the boys and girls about Melinda's coming, and they promised to get some teas and dances, and a big reception at the Beales' to-morrow night. It will not be anything like the fine dinners and balls and bridge parties she's been accustomed to, but no doubt Melinda'll be glad enough of the opportunity to show off those new Paris gowns she wrote you about."

Mrs. Branham laughed a little hysterically. "She will be mighty happy yourself for me, I'm sure. I'm sure of that." Her little blush faded with a sudden touch of pride. "Mellie has the biggest heart as well as the prettiest face of any girl in Brookside!"

"And now," said Miss Lydia, rising, "I must run on home, and make a marshmallow cake for to-morrow night. Hester will be here about three, and you must look for me bright and early in the morning."

Mrs. Branham rose too, following Miss Lydia out on the porch. "And you don't mind, Lydia," she said, "please bring over some chrysanthemums. There's not a blossom on the place, and the child has a perfect passion for flowers—used to keep them always in her room at college."

"I'll bring a bushel!" And waving her hand, Miss Lydia disappeared through the high, old-fashioned gate into the shrubbery beyond. When the brilliant edge of her glistening black hair had vanished from view, Mrs. Branham heaved a sigh and went back into the room to think.

Was it true that Melinda's homecoming was apt to bring her more disappointment than pleasure? She could not bring herself to believe it, knowing her daughter as she did. But she had not reckoned with the influence of the past five years! Lydia Martin had a keen insight into human hearts—she must be right. Mrs. Branham's heart grew heavy within her. Would the little they were able to do help anything, after all, she wondered? Not knowing what else to do, she went to the desk and took out Melinda's last letter, vainly hoping to glean between the lines some vague denial of her fears.

Dearest Mamma: We arrived at noon yesterday, and I feel so scarcely want to see you. But there are many things I must attend to, and I just may pay a wee little visit to the '07 girl—all of them that are here—before I leave. So do not expect me until Thursday at four.

So you are still at Brookside? My rheumatism so bad—or Johnny now? Somehow I can't help feeling worried, although I know you would have written me if there was anything serious.

I have oceans to tell you of my trip; it was simply grand. I'm dying to have you see the four Paris gowns I bought with the two thousand dollars papa gave me for clothes. They are exquisite—all different shades and styles.

Lucy is hurrying me to dress for dinner, so you will excuse a short note this time?

Be sure to meet me with the Raynolds. I've developed quite a frenzy for the latest thing in "motors."

With love inexpressible for you all, Devotedly, Mellie.
The latest thing in motors! Out-

side the cottage and farm, they hadn't the price of a single car in all the world. Mrs. Branham's hand went to her heart. Two thousand dollars! She shuddered. Miss Lydia's warning recurred to her with ominous persistence, gathering force with every fresh evidence of their truth.

Well, there was no wasting valuable time in vain regrets and idle speculations. She must get to work on that room.

Hester came promptly at three, and accomplished wonders in the next two hours. The dresser had arrived, and was placed advantageously between two low windows. In one of the drawers was a dainty linen scarf, worked exquisitely by Miss Lydia's own deft fingers. Mrs. Branham dashed a word of gratitude from her eyes as she smoothed it out and placed the little Dresden toilet articles artistically around it. She had resorted then from an old family trunk, and Melinda used to admire them so much.

The bed was clothed in fresh draperies, and spread with the whitest counterpane. Blue ribbons were run through the willow chair brought from the parlor, and a gay little oriental cover placed on the reading table.

Before nine o'clock the following morning, Miss Lydia, with the bolt of muslin tucked under one arm and a mammoth bunch of vari-hued chrysanthemums in the other, ran up the front steps.

(Concluded next week)

The Upward Look

A Glorious Promise

Jesus answered and said unto him, if a man love Me, he will keep my words, and my Father will love him, and we will come unto Him, and make our abode with Him.—John, 14, 23.

What are Christ's words? First, that we must love the Lord our God with all our heart and with all our soul and with all our mind: Second, that we shall love our neighbour as ourselves. If we will do but these two things we will fulfill all the rest of God's commands.

Is there anything that occupies our thoughts more than anything else? Is it our pleasures or troubles, our business successes or failures, a love of honor, of money, or of anything pertaining to this world? If so, we must beware. Thoughts of God must have the first place in our minds. If they do not, then God will not love us. He might say:

This does not mean that we must give up the things of this life. It means, if anything, that we must give a more attention to them, but in a different way. In all that we do we must be consciously endeavoring to please God. We must be like the humble shoemaker, who said that he well that were to die and be asked in Heaven if he had made the shoes he would not be ashamed to say yes. This shoemaker, therefore, while engaged in such work as making shoes was, in the same time, thinking of God and trying to please Him. The shoes he made were all the better on that account.

So it may be with us. In our daily work we should endeavor to do everything, even the most trivial things, to the best of our ability so that God may be pleased with our work. We should desire to have:

"A mind that is broad and outward life. While keeping by Thy side, Content to fill a little space If thou be glorified."

Thus we will keep God's words, and He will love us and make His abode with us.—J. H. N.

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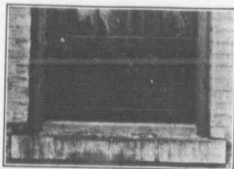
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Making and Managing Window Boxes

Wm. Hunt in Candian Horticulturist.
A window box does not necessarily require to be of an elaborate or expensive nature, so long as it is strong enough to stand the pressure of the



An Undecorated Window

weight of soil and to resist the efforts of gales and winds to dislodge it from its position. A plain wooden box made of one inch dressed pine of the following dimensions will be found very useful, inexpensive and effective:

AN UNDECORATED WINDOW

Length of box (over all) should be about the width of the window itself, not including the window frames. The two or three inches in width of frames on each side of the window will allow for covering the box with cork bark, or other material, if required, of which more will be said later. The dimensions given here can of course be changed to some extent so as to suit the style of window, but care must be taken not to have the box too large, so as to be heavy and unwieldy: Width of box at top (inside measurement), nine to ten inches; width of box at bottom (inside measurement), eight to nine inches; depth of box (inside measurement), about seven inches.

The difference in the width of the top and bottom of the box will allow the front to stand at an angle or slope outwards from the bottom up, thus avoiding the common box-like appearance which a perfectly upright front board would leave. This method also allows the drooping varieties of plants to hang clear of the box, thus adding to the effect, as well as being beneficial to the plants. The box should have three or four thin cleats of wood one inch in width and half an inch in thickness nailed to the outside of bottom to allow of free drainage, and to prevent the rotting of wooden sills. Some half inch holes should be bored about six inches apart in the bottom for drainage purposes. The box should be painted outside, and two inches down from top on inside. A dark, dull, olive-green color is best for this purpose. A small iron staple or screw-eye should be placed on each end near the front top corner to support the box when placed in position. A piece of strong wire, or an iron hook, fastened to the screw-eye or staples placed in the windows should be used for this purpose. The box should have at least three inches bearing on whole length of window sill. A piece of galvanized sheet iron may be placed on the sill to prevent the sill from rotting. The following diagrams will perhaps be of service in the construction of the box:

A box constructed as stated will



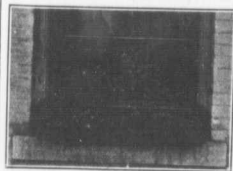
End Section of Box



Bottom of Box, showing Cleats and Holes for Drainage

with ordinary care last for nine or ten years if given an occasional coat of paint

A more elaborately constructed box can be had by having the bottom project about an inch on the front and ends, and the edges nicely rounded. Beading can also be used effectively for appearance sake. All of these are of little use, however, and only serve to help rot the box. It is much better for the successful growth of the plants to have a plain box as described covered with virgin bark, or even the bark of some of our native trees. The bark should be nailed on firmly. Flat pieces of bark are best for covering window boxes. It may be necessary to run a saw cut partially through the cork bark lengthwise on the inside, to make it more pliable and to make it set closer. The bark of the hard maple, ash, and walnut are particularly well suited for this purpose, especially if taken from a recently felled tree, when the bark is pliable and easily placed in position. The covering of the bark—or bark and

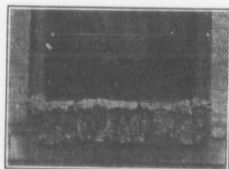


A Plain Painted Box

moss—as seen in the photos, not only gives the box an artistic and rustic-looking appearance, but also helps to prevent the soil from drying out quickly as it does in a plain wooden box, a point worthy of consideration, especially if the box is to be placed in an exposed sunny situation. Covering the outside with small pieces of split cedar nailed on has a good effect from an artistic point of view, as well as preventing the soil from drying out too rapidly. These are some of the methods by which window boxes can be made more artistic and less crude looking than we often see them, and also give the plants the best possible conditions for successful growth.

SOIL FOR WINDOW BOXES

A good, rich, loamy compost, about two parts loamy potting soil and one



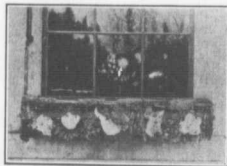
Box Covered with Cork Bark

part of well-rotted barnyard manure with a little bone meal, makes a good soil for window box plants generally. It is of no use expecting good results in window boxes if poor soil is used. I have found it a good plan to put a

Front:

Back

sprinkling of bone meal or a thin one-inch layer of well-rotted barnyard manure spread over the soil about an inch from the bottom of the boxes.



Covered with Native Bark, Lichens and Fungi

This serves as a reserve fertilizer when the balance of the soil has become exhausted.

(Continued next week)

If You Want To Be Loved

Don't contradict people, even if you're sure you are right.

Don't be inquisitive about the affairs of even your most intimate friend.

Don't underrate anything because you don't possess it.

Don't believe that everybody else in the world is happier than you.

Don't conclude that you have never had any opportunities in life.

Don't be rude to your inferiors in social position.

Don't repeat gossip, even if it does interest a crowd.

Learn to hide your aches and pains under a pleasant smile. Few care whether you have the earache, headache or rheumatism.

Learn to attend to your own business—a very important point.

Do not try to be anything else but a gentleman or a gentlewoman, and that means one who has consideration for the whole world, and whose life is governed by the Golden Rule: "Do unto others as you would be done by."

Old flannel has a strong attraction for moths and buffalo bugs, so after taking the usual precautions in putting away the winter garments, if a square of flannel is left on the floor of the closet, where the moths may be expected, they will eat the flannel in preference to anything else. By carefully watching the trap, if they are discovered, they may be destroyed on the flannel.



What Our Trade-Mark Means to You

It means that the flour contained in bags and barrels so trade-marked is decidedly whiter, a great deal stronger and more nutritious than other flours.

It means that the flour has been properly aged to mature its full strength.

It means

"More bread and better Bread" and better pastry, too.

It means elimination of uncertainty—"your money back" if Purity fails to give entire satisfaction.

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The Spring Reign of Terror

R. M. Belle, Victoria Co., Ont.
The ambitious woman who is always trying to outdo her neighbor, makes one great mistake when, in order to get her spring cleaning done first, she begins before the weather is suitable. She is also prone to rush things along with all possible haste, and expects everybody, and everything, to verge in that one direction. She gives but slight thought to the bill of fare, but "picks up anything." With cold and irregular meals, the

house is in confusion, herself not specially attractive in that ragged gown, is it a wonder that the men folk and children keep out of the heartily glad when this reign of terror is over, and the witch of mop and broom is transformed into her old self again?

How many women there are who, in their zeal to clean house, work until every nerve and muscle is overwrought and no refreshing sleep visits their eyelids; but after the spring rush is over, they are just ready to go to bed from utter exhaustion, and after all cannot enjoy their clean house. Better make haste more slowly, plan wisely, make our brains save our bodies and take them to enjoy the awakenings of spring, the soft sweet air, the birds and flowers. There is so much now that is inspiring and ennobling. Mother Nature opens the book for us; if we would

read and enjoy, and we must not busy ourselves in housecleaning from morning till night.

PLAN BEFORE

To plan wisely we must see if there is not much we can do as preliminary work. There are boxes and bags of odds and ends that have to be looked over, and these should be brought to the kitchen, for storerooms and attics are not especially warm at this time of year; then, too, you can watch the pot boil while you are sorting over the articles. Do not gather useless rubbish; remember that every year brings its own accumulations, and what you cannot possibly use, give to someone that can, or throw it away, thus saving much valuing time at the semi-annual cleanings. Book-cases, wardrobes and china closets may be cleaned beforehand, also beddings and mattress covers washed; these and many other tedious jobs, save just so much time during the regular upheaval. Before you begin the cleaning proper, see that all conveniences are at hand. The step-ladder or nail puller may have to be loaned, or you may have to take a five mile trip to town after a five cent paper of tacks. Arrange with the painter and carpet cleaners—the earlier you notify them the better, for they are busy men at this season.

Do not neglect the table for your own appetite will be larger with the unusual exertions, and in the spring time, especially, should the menu be varied, as appetites are apt to lag. One can draw heavily upon the canned stores and cook a quantity of ginger snaps, add a hot ham or roast a large piece of meat. A mid-week pot of beans is not to be despised, and for those who like soup, a good amount of stock may be prepared previously and kept in air-tight jars; by the addition of vegetables, rice, etc., a nourishing soup is quickly prepared.

BEST METHODS

The approved method of cleaning is to begin at the attic and go down. Select warm days for the upper rooms for there are many things to be aired and sunned, and the cleaner will be much exposed to going in and out. Tie up the head and shoulders when putting articles out upon the lines.

One cannot be too careful regarding springs and mattresses; get them as clean as possible, especially if there has been any illness in the family, when some antiseptic fluid should be added to the cleaning water. Pick over husk beds, adding new husks when needed and wash the ticks; mattresses are easily cleaned by beating them until no dust comes to the surface, then laying them over two lines or in any position where the air will circulate freely. Feather beds are more difficult to cleanse, but should be renovated once in every two or three years, and every year between well aired and beaten. When the ticks are to be washed, the feathers are easily emptied into another by ripping a piece in one, and overhauling it firmly to corresponding place in the other, then shaking them through a glass fashion, into the empty one.

Pillows are not so hard to handle. A sweet bed is a luxury that all may enjoy, but a musty one, smothering oily feathers (and we have all slept in them at some period of our life) is an abomination. If vermin is seen every nook of the bedstead and springs should be thoroughly scalded, sunned, then treated to an application of some "sure cure," and thereafter every week, one should remove the bedding, and give a careful search, being sure to inspect the back of the springs, and even the castors for fugitives, for these pests are very sly. Iron bedsteads should recommend themselves to all, they are now very inexpensive, easy to handle, and afford no lurking places for vermin.

ONE ROOM AT A TIME

Never attempt to clean but one of

the living rooms at a time, as visitors may unexpectedly appear; the upper rooms do not matter so much as long as the bed is ready for occupancy at night. The kitchen and the pantry are the tug-of-war, so ought to be taken separately, and here the economical woman will want to save this or that thing, if it will "come in handy" some time. Don't do it. Throw away all broken utensils or scorched stew pans. They are a snare and a delusion, giving you more trouble than you can ever get out of.

Clean the cellar as thoroughly as you do the house, and afterwards treat it to a coat of whitewash to sweeten the air (this is for the good man). Don't stop at the cellar, but ask him to straighten up the wood-work, clean up the dooryard, mend the broken paling, replace the rusty hinges with a strong one, secure the loose planks of the door-step, the shabby railing—a little procrastination often results in a sprained or dislocated ankle.

Don't try to wash all the blankets at one time; take one each week with the regular wash until all are clean. You will not feel the extra work. And one more don't as I want to emphasize what we have said first: Don't start too soon and contract influenza or some thing equally as bad; the whole spring is before you.

Talks with Mothers**Stop Worrying**

Mrs. Nancy J. Spillings, Sask.


If all women knew how much nervous force it takes to worry and fret they would do less of it. If it really did any good, that would be one thing, but it does not. Instead of helping it takes away. My motto is, "Never fret over what can be helped—remedy it. Never fret over what can not be helped—forget it." At least so by that motto as much as possible, but the time was when no trifle was too small for me to fret over, not even the weather, and the more I fretted the more I could see to worry about. Then a real nervous breakdown gave me plenty of time to see the error of my ways, and I have been repenting ever since.

This is why I am writing you, dear sisters. If I might be the means of turning some one into the right path before it was so late! Begin to follow my motto now, this minute! I know that you will never regret it. Don't wait until you are down sick, but stop worrying right now, and you will soon thank me for giving you the advice. If I should have had only told me the consequences of so much worrying years ago I should have had better health to-day. I fully believe. Another thing, take all the innocent pleasure of life as you go along. A few dollars so spent, now and then, is not lost, and the interest it pays in added good health, will soon be manifest to human being can go like a machine, day after day, and not feel the effects of the wear and tear sooner or later, perhaps when too late, for good health is a hard thing to regain when once put in peril.

For a Large Family

In a large family of small children the mother soon needs valuable time on stormy mornings "making up" rubbers for their small owners. Now she has solved the problem by buying a dozen of the patent clothes-pins. Each one was painted a separate color and for each child given one. When the rubbers are removed they are fastened together with the clothes-pins and thus are together when next needed.

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THE COOK'S CORNER

Send in your favorite recipes, for publication in this column. Inquiries will be replied to, as soon as possible after receipt of same. Our Cook Book sent free for two new yearly subscriptions at \$1.00 each. Address, Household Editor, this paper.

"Sponge Cake" Lemon Pie

Quite an improvement on the ordinary lemon pie with the fussy ceremony, which is always so difficult to get just right, is the "sponge cake" lemon pie. The ingredients are: Juice and grated rind of one lemon; 1 cupful of sugar; 2 eggs; 2 tablespoons (rounding) of flour; 1 cupful of milk. Put the sugar into the yolks, and beat. Add the flour, and beat again. Add the milk. Fold in the stiffly beaten whites, being careful not to beat the mixture after the whites are added. The whites rise to the top while baking and form a sort of meringue, so the pie is really as good to look at as to eat.

WALDORF SALAD

Wipe and pare apples, then cut in small pieces. Mix with an equal quantity of finely cut celery, and moisten with mayonnaise dressing. Mound on a nest of crisp lettuce leaves and garnish with curled celery and canned olives cut in strips or fancy shapes.

Curled celery often makes an attractive garnish. Cut thick stalks of celery into two-inch pieces. With a sharp knife, make five cuts parallel to each other, extending one-third the length of the pieces. Make six cuts at right angles to the cuts already made. Cut the other end in the same fashion. Put the pieces in cold or iced water, and let stand for several hours.

STEAMED BROWN BREAD

One pt. sweet milk, 4 tablespoons molasses, 1 cup Indian meal, 2 cups rye or gram flour, 1 teaspoon salt, 1 qt. saturated mix with a spoon, and steam 3 hours, and then bake half an hour or more.

BOSTON BROWN BREAD

One and 1/2 cups Graham flour, 2 cups corn meal, 1/2 cup molasses, 1 pt. sweet milk, 1/2 teaspoon of soda, steam 3 hours.

FARM AND DAIRY PIE

Cream 1 cup butter, and 2 cups sugar, mixed with 3 tablespoons flour, 3 well-beaten eggs, and 1 cup cream. This is a splendid filling and enough for two pies. Bake with under crust only.

CHEESE PIE

Heat some sour milk slowly until curd separates from whey, then drain and rub cheese through a colander. To 1 cup cheese add 2 well-beaten eggs, 1 cup sugar, a little salt, and 1 teaspoon lemon extract. Beat all together and lastly add 1/2 cup sweet milk. Bake in under crust like custard pie.

Putting Away Winter Furs

The putting away of furs at the beginning of the warm days may be made as attractive and pleasant a task as any of the sweet, clean household duties of the careful housewife.

Did you ever think when gazing at the loveliness of the sweet-scented geraniums growing in your window, that they may be of use, as well as give color and fragrance?

When you put away your tippet, stole or muff, or the becoming fur hat that has been so useful through the winter months, just gather a quantity of leaves of the sweet-scented rose-geranium and strewn them under, over and all around the fur, which is then cosily laid away between sheets of tissue paper carefully lapped at the edges to seal the smallest opening. It may then be placed in a box. If you have an old linen pillow-case, slide the box into its capacious opening, lap the edges securely and fasten with large, neat stitches, label the contents of the box, and then stow away for its summer rest.

A SUCCESSFUL METHOD

A few yards of unbleached muslin can be made into bags; these are im-

mersed in turpentine and then hung up to dry. The liquid serves the double purpose of rendering the bag impregnable and, by the character of the odor, keeping the moths at a distance, for turpentine has many times proved itself the victorious foe of the fluffy-winged insects. A fur jacket or coat may in this way be left on its hanger serenely suspended from a peg.

Simple as any one of these methods has proved to be, let it not be forgotten that the chief factors for good are the following: The bright, clean condition in which the fur is put away, and the cool dry atmosphere in which the fur is placed.

On a bright sunny day, when the sun is not too hot, hang your furs on the line where the breeze is gently stirring, and let them get the air and sunshine of a day. Before taking them down a gentle beating will prove of the greatest benefit. If there is a spot anywhere on the fur, be sure to remove it with dry magnesia or safe cleaning fluid.

Then, when putting the furs away be sure that you have found a place both cool and dry. For after all laid and done, a more or less continued baking, or prolonged though slight soaking are more greatly to be feared than the attacks of our gentle winged friends.

Warm sun, fresh breezes and cleanliness are sure guards against the foe of fur.

Take Care in Ordering

We have several orders for patterns that we are unable to fill, as the parties ordering them have forgotten to give us their address. One order for stamping outfit we are unable to send for this reason. The woman ordering sent us 75 cents, which we are holding. As she did not state where she lived, we have not been able to send the pattern.

Too much care cannot be taken in ordering, giving full address, and size of pattern desired, with number of pattern, written plainly in ink.

If a child should accidentally get pepper or any other smarting substance in its eyes, apply sweet milk at once, and plenty of it.

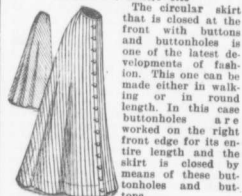
To prevent a bruise from turning black or blue, rub the affected parts at once with olive oil.

Do you want to have your own subscription to Farm and Dairy renewed free? Then send us 2 new subscriptions at \$1 each and we will renew your own subscription free for one year.

The Sewing Room

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

CIRCULAR SKIRT 6183

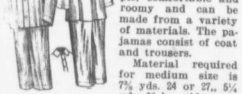


The circular skirt this season is the front with buttons and buttonholes is one of the latest developments of fashion. This one can be made either in walking or in round length. In this case buttonholes are worked on the front edge for its entire length and the skirt is closed by means of these buttonholes and buttons.

Material required for medium size is 5 1/2 yds 24, or 27, 3 1/2 yds 44, or 23 yds 36.

The pattern is cut for a 23, 24, 26, 28 and 30 in waist and will be mailed to any address on receipt of 10 cents.

WOMEN'S PAJAMAS 6187



Material required for medium size is 7 1/2 yds 24 or 27, 5 1/2 yds 36 in waist.

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

TUCKED BLOUSE 6189



The blouse that is tucked in various effective ways is the favorite of the moment and this model would be charming. The plain yoke and center front are especially well adapted to hand embroidery so much in vogue.

Material required for medium size is 4 1/2 yds 24, 3 1/2 yds 44 in, with the yds. of insertion, 8 1/2 yds of banding to trim as illustrated.

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

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

Art Embroidery

No. 571. Special Perforated Stamping Outfit. This splendid outfit consists of about fifty up-to-date and handsome full-size designs, including a Shirt Waist, Corset Cover, Lingerie Hat, two Complete Alphabets (one 2 1/2 in. and one 1 in.), Centerpieces (size 10 in.), two Doilies (5 1/2 in.), two Book Covers, Sofa Pillow, and many other useful designs, in all the modern styles of embroidery. The above designs are perforated on a good quality of paper. We also include a cake each of the blue and white of the "Ideal," two white of the "Poncettes," and full directions for using the stamping preparation, at the special price of 75c for all.

These Perforated Patterns can be used an unlimited number of times.

HAVE YOU GOITRE ?

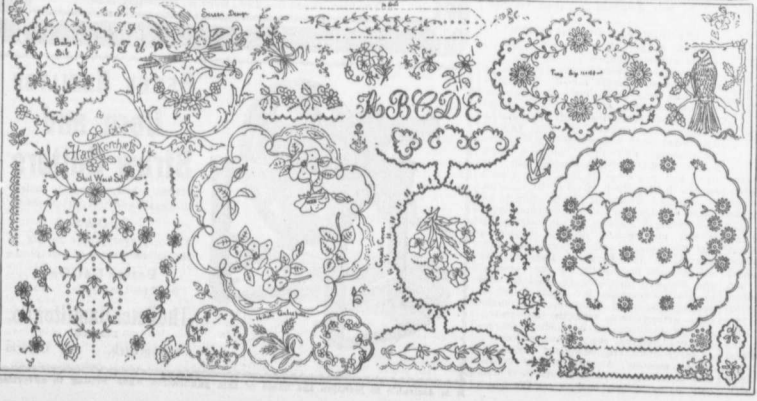


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Home remedies for Tan, Freckles, Mole-patches, Eczema, Pimples, Blackheads, Itch, Poisoning, etc. Write for particulars through your trouble fully.

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ESTABLISHED 1882



OUR FARMERS' CLUB

Contributions Invited.

QUEBEC

SHERBROOKE CO., QUE.

LENNOXVILLE.—The weather conditions have been rather trying of late. An 8-inch fall of snow lately, followed a few days later by a 12-hour rainfall, with plenty of wind in between, have kept the snow plows and rollers busy, and has effectually settled the winter which by the way has been a serious one for many farmers. The local market for dairy produce holds up fairly well though slightly lower than at this time last year. This is probably owing to the large amount of butter held in cold storage since the summer. One local merchant had 1500 lbs. in storage and others doubtless had butter in proportion while Messrs. Ames & Sons of the Sherbrooke Cold Storage Co., also bought large quantities during the fall for winter trade. Eggs have been very scarce, bringing 40c and 50c. They are now much more plentiful but the extra demand during the Lenten season will have a tendency to hold prices up till Easter time.—H. M.

ONTARIO

HASTINGS CO., ONT.

CROOKSTON.—There is a little complaining about scarcity of feed. The crop is splendid corn crop is proving of value in this respect. Judging by the prices being paid for dairy cows farmers are looking forward to another good year. Live hogs are worth \$7 a cwt.; eggs are 23c a doz.; potatoes, 75c a bag; butter 25c a lb.—H. W.

THE RIDGE.—The snow is not deep in the woods and lumbering is going on quite extensively. Nearly all the farmers are taking out logs to the saw mills. There are four saw mills in the neighborhood, all within five or six miles of each other. Feed seems to be quite plentiful, although hay and grain sell at a good price, hay bringing \$12 a ton, oats, 50c a bush, potatoes, \$1 a bag; beef, 5c a lb.; and butter, 25c.—A. B. C.

HALLIBURTON CO., ONT.

HIGHLAND GROVE.—The snow is very scarce here, but ice is plentiful. There is hardly enough snow for the log haulers. Some farmers are uneasy as to how the winter is going to hang out, there being quite a few who have to buy what they need for the rest of the winter. Feed is not very cheap. Hay is \$12 a ton; oats, 50c a bush; other prices remain about the same. Seed grain is almost out of sight. It is thought that the cheese business will be rather slow this year.—F. R.

VICTORIA CO., ONT.

HARTLEY.—Farmers' clubs and Women's Institute meetings are again engaging the attention of our people. These organizations have done a great deal of good in the past, and there is a great work for them to do in the future. If we would encourage our young talent, where we have plenty of smart young men and young women, in a very short time these meetings could be made very interesting without having to import speakers from other districts. The marriage is with us; let us encourage them all we can. Forming rural telephone companies and making preparations for building rural telephone lines, seems to be the order of the day. With the number of lines already built and phones installed and the number on the way in the near future, it is expected to be able to sit by our own fireside and talk with the editor of Farm and Dairy, instead of writing, which we have to do at the present time.—W. M.

WENTWORTH CO., ONT.

KIRKWALL.—Nearly all the farmers are hauling their farm manure out at intervals of every two or three weeks. They spread it directly on the fields, where the corn and root crop is to be grown this coming summer. When the manure can be got out at this time of the year it lessens the rush of work in the spring, and the crops also seem to yield much better than when the manure is not spread on the ground until just before sowing the crop. Very little wood is being cut. The prices of grain, dairy produce and all kinds of live stock, have been steadily rising since the new year. The outlook for the farmer is bright. Wheat is now selling at \$1 a bush; oats at about 45c to 48c a bush; barley, 50c to 55c a bush; and peas at 85c a bush. Notwith-

standing the high price of grain the greater quantity of feed for the cattle, sheep and hogs on the farm, and even larger prices are being received when fed in this way than if the grain was all drawn away as soon as threshed.—C. A. W.

WELLINGTON CO., ONT.

MOUNT FOREST.—Auction sales are now quite numerous. Many farms are for sale. The weather is very fine. For many, the vast unclaimed wheat lands of the western plains hold unclaimed fortunes. The present weather seems more springlike than that of winter. We have noticed for some time different species of spring birds and the probes are that comparatively mild weather will continue. There is scarcely enough snow to make sleighing. It will be easy getting around in the bush this spring to take off the first harvest, which is that of sugar-making.—C. N.

ELORA.—February has been most remarkable for its variation of weather—from warm and sun-like to very cold. The rains have relieved the water scarcity and every one seems to have plenty for stock and domestic purposes. Prices of the stock yet but much of it is unsuitable for seed, as nearly everyone is satisfied that for seed "the best is the cheapest," and "whatsoever is a man sows that shall be also reaped."—C. N.

BRUCE CO., ONT.

WIARTON.—The price of seed grain will be higher but there are not likely to be any importations of western oats again this coming spring. Many found this class of seed grain would not germinate last year. Many of us are wondering whether the grass seed will be had this coming season. The last two years they have tolled oats and barley 25 to 50 per cent. The probabilities this year are in favor of a rest from them, judging by their history over a number of years. People should make up their minds to put in a large area of corn, as indications point to a summer with rainfall below normal, though not likely to be as dry as 1908.—C. N.

MUSKOKA DISTRICT, ONT.

HUNTSVILLE.—We are having a very mild winter. The snow has not been over one foot in depth. A large number of farmers are engaged in hauling wood and logs, although the prices for both these are considerably lower than in former years. Farm produce is in good demand and prices are high. Hay is \$12 a ton; butter, 30c a lb; eggs, 40c a dozen; pork, 10c a cwt.; feed oats, 50c a bush. Other grains are selling at high prices. Butchers' cattle are not to be had at any price, and local dealers are having their supplies shipped in from other parts. Horses are not in much demand. The few that are changing hands command rather high prices. Farmers are cleaning and preparing their winter grass seed for the coming season. It is to be hoped they will be well rewarded for their trouble.—F. R.

SHREYER BAY DISTRICT, ONT.

SLATE RIVER VALLEY.—The much-needed rural telephone system with city connections, is receiving the attention it well deserves amongst farmers. Meetings are being held to complete organization, and we trust they will result in an up-to-date system being installed this coming summer. The citizens of "The Valley" have established a precedent in their recent dealing with their fine new brick school building with basement and furnace, and two acres of land. The school section having been divided on account of increased settlement the building is no longer required for school purposes. At a well attended meeting of the ratepayers, it was unanimously decided to donate this fine building and property, centrally located in the Farmers' Institute. It will be used principally for the Farmers' and Women's Institute. It could be used to great advantage for small farms, or possibly the local Institute could make some arrangement with the Superintendent of Institutes to have short courses in stock judging, seed selection, on farm topics, etc., conducted during the winter months. As this section is distant from any of the colleges it is difficult for our young men to get the neces-

LIVE HOGS

We are buyers each week of Live Hogs at market prices. For delivery 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

\$7.00 a Cwt.
FOR HOGS WEIGHING 160 TO 220 LBS.

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

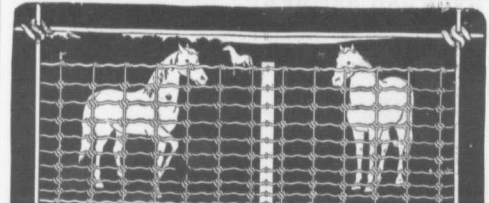
sary training along these lines. Rural free mail delivery will possibly be the next matter to be taken up by our farmers.—J. B. H.

GOSSIP

Mr. John W. Todd, of Corinth, in sending in new copy for his advt., writes that his advertising in Farm and Dairy has brought satisfactory results. Among his sales were the following: A pair of Tamworths to Charles Ocker, Cairo, Ont.; a gilt to P. J. Redick, Moonburg, Ont.; a Tamworth boar to Jacob Huffman, Milverton, Ont.; a Berkshire boar to T. Dennis, Strathfordville, Ont.; one boar to Jackson Fry, Corinth, Ont.; a Tamworth boar to

W. H. Wilkinson, Springfield, Ont.; one boar to John Tiddie, Grovesend, Ont.; a Berkshire sow to J. Huffman, Springfield, Ont.

William Cooper & Nephews: In response to your inquiry re Cooper's Fluid Dip, would say that I have used it on my cattle with the best results, and can recommend it to my fellow stockman as a vermin killer, likewise a disinfectant. I have also used it for scratches or grease heels on horses and find it to be entirely satisfactory, and I fully believe the preparation to be of incalculable value to the farmers of Canada. (Signed) A. Dudley Alton, Appleby, Ont.



BUY IDEAL FENCE

YOU should build fences like you make a Tinkerling does not pay. Fences made of light wire, and wires that break rather than give when it sets cold; fences that an unruly animal could break through; fences not properly stayed—these are not paying fences. Ideal fence is the right kind. It is made of No. 9 hard steel wire from top to bottom, and is heavier and stronger than any other fence. Remember, it costs no more to dig your post

holes, set your posts, stretch your fence and staple it when the heavy Ideal fence is used than for a light flimsy article. And notice how the Ideal fence is locked at every crossing. It is heavily galvanized to keep off rust. Adapts itself to extremes of heat and cold, and always presents a handsome, well-stretched appearance. It pays to study the matter over thoroughly before you buy any kind of fence. Our little fence book gives you all the points. Write us today for free copy.

The McGregor Sawmill Fence Co., Ltd., Dept. R, Walkerville, Ont.
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Corn and Straw Cutters

are the safest, strongest, easiest to operate and best cutters made.

PLOWS

Farmers everywhere testify to the splendid work of our plows

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MARKET REVIEW AND FORECAST

Toronto, Monday, March 8th. — General trade continues fair for this season. A good volume of business is being done in wheat for spring trade, and wheat also rules fair, especially as this is the season when the roads are breaking up and business is generally slow on that extent. Northwest business shows signs of considerable improvement and the outlook generally is good. Country wheat maturing this month has been fairly well met and there has been fewer renewals than was expected. There is a healthy demand for money for both speculative and legitimate business and banks seem to have no trouble in placing call loans at 4 per cent. on good security. Discounts on commercial paper continue at 7 to 7 per cent.

WHEAT

The week has been somewhat exciting one in wheat circles. A week ago May wheat was shopped up to \$1.20 by the sudden rise in London, and cash wheat sold there at \$1.25. At the close of the week there was a decided slump and May wheat dropped to a bush, and now those in the trade are somewhat of a dilemma, not knowing whether this drop is a permanent one or merely part of the same game the speculators are playing in order to make greater hauls later on. There is no doubt that prices the past week or two have been inflated beyond the legitimate value of wheat in the world's market. However, there are indications that this slump has some foundation in the general situation. The U. S. government report for March will soon be published, and there is a feeling that this will show an improved condition of the wheat crop. At the end of the week larger reports were reported in the West, and also larger shipments are being made to the Argentine. Cables were lower and the general situation seemed to favor the "bear" element. The market here was a general drop in prices all round. At Winnipeg prices dropped to 50¢ spot wheat, which was being held for some weeks back, was easier. The local market here was easier, and it was said to get tight in the West, though holders do not seem to be anxious to sell. Dealers here quote Ontario wheat at \$1.20 to \$1.25 outside, and fall wheat \$1.05 to \$1.07, and goods \$1.10 to \$1.15 on the Toronto farmers' market.

COARSE GRAINS

The oat market has ruled steady all week, though at the end of the week, owing to larger receipts, an easier tone prevailed. There is an excellent demand, however, which has maintained values. At Montreal Ontario oats are quoted steady at 40¢ to 50¢ a bush. Dealers here quote oats at 40¢ to 45¢ outside and 40¢ to 50¢ on the farmers' market here. The barley market rules quiet but steady at 40¢ to 45¢ on the farmers' quotations. Maltng barley is quoted at Montreal at 57¢ to 65¢. Dealers here quote barley at 55¢ to 60¢ outside and 60¢ to 65¢ on Toronto farmers' market. Pens are quoted at Montreal at 30¢ to 35¢, and here at 25¢ to 35¢ outside.

FEEDS

There is not much change in the market for mill feeds. Middlings are still short of bran and are reported to be refusing to sell bran to dealers unless the order is accompanied by a large quantity of bran. The demand for mill-feeds is strong. At Montreal Manitoba bran is quoted at \$22 and shorts at \$21 a ton in bags in car lots outside. There is a fair demand for corn meal. American corn is quoted at Montreal at 75¢ to 76¢ a bush in car lots outside. Dealers here quote Canadian 40% feed barley is quoted at Montreal at 55¢ to 56¢ a bush.

SEEDS

There are no new developments in the seed situation. Dealers report a quiet feeling in the market and there does not seem to be much competition in buying. A great deal of the seed offering is badly colored and much of it is of inferior quality, which makes it hard to dispose of in Canada. Dealers here quote red clover seed at \$7.15 to \$8.25 for timothy; 85¢ to \$9.50 for alfalfa a bush. 40¢ to 45¢ for timothy, 50¢ to 65¢ a bush of 50 lbs. for mangel. At country points dealers are paying 66.75 to 87.75 for alfalfa and \$4.50 to \$7.00 for red clover, and \$1.50 to \$2.10 for timothy.

HAY AND STRAW

The hay market shows little change. A falling in receipts advanced, has

strengthened the market somewhat. Baled hay in car lots is quoted at \$11.50 to \$12 for No. 1; \$9.50 to \$10.50 for No. 2; \$8.50 to \$9.50 for No. 3; 88¢ to 89¢ for clover mixed, and 80¢ to 81¢ for ton clover. Prices for car lots on track Toronto are: Baled hay, \$10.75 to \$11 for No. 1 timothy, and 87¢ to 88¢ for undergrade; baled straw \$6.50 to \$7.75 a ton. On Toronto farmers' market loose timothy hay was sold at \$12 to \$13.50; mixed at 97¢ to \$1.10; straw in bales at \$12 to \$15, and loose straw at 87¢ to 88¢ a ton.

POTATOES AND BEANS

Supplies of potatoes have been liberal during the week. Quebec potatoes are quoted at 70¢ to 75¢ a bag in car lots at Montreal. Dealers here quote Ontario Here and 75¢ to 90¢ on the local farmers' market.

There is not much doing in beans, as there is little demand. The last prices were at too high a price to do business. Hand sown beans, though not of as good quality as Canadian beans, can be brought in at a much lower price and help to take the place of the home grown article. West- York beans are being quoted in car lots at \$1.20 to \$1.30. Dealers here quote beans to the trade at \$1.20 to \$1.30 for primes and \$2.10 for hand-picked.

EGGS AND PULTRY

The rougher weather has lessened receipts at Montreal, and new-laid case lots. A car of American eggs arrived here last week. These, it is reported, are about the best quality of eggs in the country, and with the duty of 3¢ a doz. and freight or express charges added, can be sold at 25¢ to 30¢ a doz. The market here rules steady, under liberal receipts and a good demand. Dealers quote new-laid in case lots at 27¢ a doz. On Toronto farmers' market new-laid eggs are quoted at 25¢ to 30¢ a doz. The poultry market rules quiet, as is usual at this season. Prices, however, are steady firm at 15¢ to 16¢ a lb. for chickens; 10¢ to 11¢ for fowl, and 10¢ to 11¢ for turkeys in car lots. On Toronto farmers' market, dressed chickens sell at 25¢ to 30¢ a lb.; fowl, 12¢ to 14¢; and turkeys at 25¢ to 30¢ a lb.

MAPLE PRODUCTS

Some business is doing in maple products at Montreal. Maple sugar is quoted at 65¢ to 70¢ a cwt. in the country. Old syrup is offering it at 4¢ f.o.b. Old syrup is selling there at 3¢ to 4¢ a lb.

DAIRY PRODUCTS

The cheese market rules strong and a good wind up to the season's business is expected. Colored cheese has sold at Montreal during the week at 15¢ to 16¢ a lb. Dealers here quote cheese firm at 15¢ to 15½¢ for large and 15½¢ to 16¢ a lb. for twins.

A little better feeling in butter is reported at Montreal, owing to a better outside demand. Choice full creamery is still in demand, and the market is creamery at 21¢, which prices are fully for a lb. below what butter was selling for at the end of the week. Supplies here continue to increase, and the value of most of the receipts is not of the best. Local wheats are here as follows: Choice creamery prime, 21¢ to 22¢; large, 22¢ to 23¢; choice dairy prints, 21¢ to 22¢; creamery prints, 21¢ to 22¢; large, 20¢ to 21¢; 20¢ to 21¢; and tubs and tubs, 19¢ to 20¢. On Toronto farmers' market dairy prints sell at 25¢ to 27¢, and cream at 30¢ to 34¢ a lb.

HORN MARKET

There is increasing activity in the horse market. At the Horse Exchange, Union Stock Yards, last week, there were several hundred buyers in attendance and a large number of sales were reported. The western market. Some buyers were buying up all the serviceably sound work horses of the right mongrel selling for the Nor-west trade. Considerably over 100 horses were sold during the week at the following quotations: Drivers, \$150 to \$200; harness horses, \$80 to \$100; wagon horses, \$150 to \$200; drivers, \$100 to \$150, and serviceably sound fine draft horses of the right mongrel selling for \$100 to \$150. Dealers here quote horses sold at 47¢ and several others, at equally good prices.

The Union Stock Yards Horse Exchange is growing in popularity with buyers and sellers alike. Everyone gets a square deal. One large buyer of horses in Toronto bought several thousand dollars worth of

horses last year at the exchange, and was so well pleased with the treatment he received that he intends to buy all his horses there. This is why the business is steadily growing. There are other advantages. The stabling is of the best. Horses are unloaded directly on the cars' right at the Exchange door, and there is no driving of horses a half mile or a mile through the city streets to the city horse exchanges. People are beginning to recognize this advantage and to patronize the Toronto Horse Exchange more and more.

UNION STOCK YARD PRICES

West Toronto, Monday, March 8.—There was a light run at the Union Stock Yards, 18 cars in all, consisting of 1776 cattle, 12 calves, 48 sheep and 7 hogs. Choice exporters sold at \$5 to \$5.40; good exporters \$4.50 to 5.20; medium, \$4.50 to \$4.80; export bulls, \$4 to \$4.50 a cwt.; choice butchers' cattle sold at \$4.30 to \$5; straight loads, \$4.30, Cows, \$3.70 to \$4; medium, \$3 to \$3.50; a few choice lambs sold at \$5.50 to \$7; ewes at \$4.50 to \$4.75; and \$3 to \$3.75; ewes at \$4.25 to \$4.50; bucks, at \$3 to \$3.75; and \$2.50 to \$3, fed and watered, and \$3.75 f.o.b. at country points.

LIVE STOCK

Receipts at the cattle markets during the week have been fair. Trade also was fair considering the quality of the bulk of the cattle offering. Drivers had paid too much for security business in the country and consequently business in this line was a little drier, drivers chose out with the hope of getting their own out of their purchases, or good to good. Taking it altogether the week's operations were a fair basis in nearly every line of live stock.

The export market showed some signs of improvement towards the end of the week over conditions a week ago, though the number of exporters offering was not large. On Thursday the best export steers weighing 1300 to 1400 lbs. each, sold from \$5.25 to \$5.50 a cwt. Some of extra quality reported as selling at more money. The exact price was not made public. Light exporters, the same weighing 1200 to 1250 lbs. each, bought for good quality sold at \$5 to \$5.25 and export bulls at \$4 to \$4.50 a cwt. London cables of March 4th quote cattle at 15½¢ to 16¢ a lb. dressed weight.

On Thursday, the last market day of the week, prime picked lots of butchers' cattle, equal in quality to the best exporters, sold at \$5 to \$5.25, loads of good cattle, \$4.75 to \$4.10; loads of \$4.40; common, \$3.50 to \$4.10; medium, \$4 \$2.50; canners and common cows, \$1.50 to \$2.20; and hogs, \$3 to \$4 a cwt.

There was a fair trade in hogs and feeders during the week. Cattle weighing demand. But few of this class were offered, and sold at good prices. Best feed, \$2.50 to 3.00 lbs. each, sold at \$3.75 to \$4.25; medium of the same weight, \$3.50 to \$4; and stockers, 500 to 700 lbs. each, at \$3 to \$3.40 a cwt.

There was a fair supply of milkers and springers on sale during the week, but few of these were offered. Prices ruled strong for good quality cows, and forward springers, but late common Thursday prices ranged from \$40 to \$50 at 75¢ each, with one or two extra ones selling' of cows at the Horse Exchange on the following day. Cows sold up to \$52. There will be a large offering on Tuesday of this week.

Choice veal cattle are in demand. On Thursday two choice new milk-fed calves for other quality rule at \$9 a cwt. Prices for other quality rule at \$7 to \$8 a cwt. The market for calves and lambs ruled steady, with a little higher quotations at the end of the week. On Thursday the best pork was sold at \$4 to \$6, fed runs at \$4, and choice grain runs at \$5.50 to \$6.50. On Saturday, March 6th, lambs sold at \$15 to \$5.50 a cwt. Lambs were quoted at Buffalo, \$8 to \$7.50 a cwt.

Hogs advanced in price during the week. On Thursday selected choice of the week were quoted on the market here, at 47¢ and 46¢, and \$6.75 f.o.b. at country points. This is an advance of 25¢ a cwt. Lower cables of March 1st to the Canadian market were \$6.75 a cwt. Canadian bacon changed with prices about as last quoted. Canadian bacon, 62¢ to 66¢.

Windsor Dairy Salt

—the Buttermakers' favorite—
Sufficiently for lumps or grittings.

MONTREAL HOG MARKET

Montreal, Saturday, March 6.—Our market for live hogs registered a slight advance in prices this week owing to a shortage in supplies during the first half of the week, and prices have been marked up about 25¢ a cwt. from the highest quotation ruling last week. The bulk of the offerings were quickly cleared at \$7.50 to \$8.00 a cwt. for hogs whose weight of cars. The falling off in supply is very likely only a temporary one, as the roads in Canada and the country were very bad and interfered with the shipments. There is no change in the quotations for dressed stock. Trade in abattoir stock range from \$10.25 to \$10.50 a cwt. Manitoba dressed is quoted at \$9.75 and country dressed at \$9 to \$9.50 a cwt.

EXPORT BUTTER AND CHEESE

Montreal, Saturday, March 6th.—Orders for cheese in small quantities keep coming in every day, and stocks here are steadily dwindling away. At the beginning of the month the stock in Canada was estimated to be about 60,000 boxes, a reduction during the month of Feb. of about 40,000 boxes. It is some days ago that the demand keeps up there will be just about enough cheese to run round before new goods are on the market in quantity. Some fairly good prices were obtained during the week for special lines of cheese. A sale of all colored cheeses was reported at as high as 15½¢. Colored cheeses, however, are very scarce, and as a rule, exporters are not inclined to sell them apart from white. With this quantity of white cheese in the deal they can be bought at 12½¢ to 15¢. White cheese alone are quoted at 12½¢ to 15¢, but it is difficult to find a buyer for them as they are more plentiful than colored on this side as well as in the United Kingdom.

VINEMOUNT CREAMERY FOR SALE

Thomas Burrows, Auctioneer, will sell by public auction on Wednesday, 17th inst., the Vinemount Creamery, otherwise known as the Vinemount Butter and Cheese Factory, on Saturday, March 27th, at 11 o'clock, at his auction room, 11 Hamilton Street, Montreal. The creamery is equipped with modern machinery, twenty-four h.p. boiler, steam engine, with modern pasteurizer and separator, with large cement-concrete, with large building and water supply and within twenty feet water pond and water for boiler. The property comprises 250 acres, part of the estate of the late Sir John A. Macdonald, of Saltfleet in the County of Westmorland, in the Province of Ontario, and is situated on the T. H. A. & N. W. R. R. The creamery is supplied by rail five minutes from Toronto. The property is being sold for the purpose of raising money for the relief of the poor. The property is a better situated and season. There is a wholesale creamery or ice cream Niagara Falls. A good opportunity for plenty of public and private. For terms and conditions of sale apply to CHISHOLM & LOGIE, Vendor's Solicitors, Hamilton, Dated, 5th March, 1909.

AYRSHIRES

JAS. BEGG, ST. THOMAS, AYRSHIRES. Standards for this herd is 40 lbs. milk per day. No call. 9-21-09

DAVID A. MACFARLANE, Kelso, Que. milkers, good test and looks like several young bulls for sale; price right. 0-9-09

SUNNYSIDE AYRSHIRES
Have been bred and imported with a view to combine quality with production. The herd contains some noted winners. Neither Hail Goodwin's imported cows heads the herd. Young stock for sale. Address
J. W. LOGAN,
Howick Station, Que.
0-6-19-09

AYRSHIRES FOR SALE
A fine lot of young bulls and calves; also the famous stock bull, "Not Likely of Ste. Anne, 1904." Come and see his offspring. Also Shetland ponies and Yorkshire pigs.

D. BODDEN, Manager,
Riverside Farm, Montebello, Que.
Hon. W. Owens, proprietor. 0-16-10

RAVENSDALE STOCK FARM

Ayrshires, Clydesdales and Yorkshires
If in need of good stock writer for prices which are always reasonable.
W. F. KAY,
Phillipsburg, Que.
0-5-10-09

BURNSIDE AYRSHIRES

Are in such demand it will make another importation. Will attend great dairymen sale of the world renowned Harbick's Herd of Mr. And. Mitchell, Kincardine, Scotland, where some good choice Ayrshires ever offered will be sold. Order entrusted to me will be carefully attended to. Take advantage of this great sale and request with a few good ones. Correspondence solicited and satisfaction guaranteed.
R. J. BLESS,
Howick, Que.
9-15-10-09

HUME FARM AYRSHIRES

On hand young bulls for service. Several very choice August, 1908, also heifers in calf, young cows, and cows any desired age. Family cows a specialty. Orders booked for Yorkshire pigs and imported Ayrshires solicited. "Phone in residence. Hoar's Station, Q. T. R."

ALEX. HUME & CO., Menie P.O.

STONECROFT STOCK FARM

Harold M. Morgan, prop. Ste. Anne des Bellevues. Choice young Ayrshire Bulls and heifers for sale. Yorkshire pigs and imported Sires and Dams. February and March litters. Largest selection. Highest quality. Write for prices.

E. B. 26-09 E. W. BJORKELAND, Manager.

STONEHOUSE STOCK FARM

Here may be seen some of the best Ayrshires in Canada, imported and home bred. Record of performance cows and heifers
Prices of stock quoted on application
HECTOR GORDON,
Howick, Que.
0-9-09-09

AYRSHIRE CALVES FOR SALE

OUT OF
RECORD OF PERFORMANCE COWS
PRICE — \$35 when one month old
GUS. LANGELIER
Cap Rouge, Que.
0-6-29-09

STOCKWOLD HERD OF AYRSHIRES stands for everything that is best in this Dairy Breed. Our success in the show yards proves for every thing that is best FOR SALE—Stock of both sexes.
D. M. WATT, St. Louis Station, Que. 0-6-10-09

Union Stock Yards Horse Exchange, West Toronto
Our Annual Auction Sale of Registered Clydesdales
March 22, 1909

Imported and Canadian Bred Mares and Stallions, all ages, will be offered. Anyone having notice for this sale is requested to send in full particulars at once and get full information by return mail from us how the sale will be handled. Entry books close Mar. 17 for this sale.
Auction Sales of Milk Cows—At the request of a number of Drivers, Dairy men, Farmers and others we have started a Weekly Auction Sale of Milk Cows which will be held every week at 1 o'clock in the Horse Sales Room. Consign your cows to us for quick cash sales.
HERBERT W. HARRIS,
It is desirable to mention the name of this publication when writing to advertisers

FOR SALE — THE AYRSHIRE BULL, "Top" 19045, of Ste. Anne's breeding. Also two bulls, one year old and one of Topog, and from deep milking females. Other young bulls for sale. Write for prices. P. A. Boudoin, 107 St. James street, Montreal, Que.

SPRINGBROOK AYRSHIRES
are large producer of milk, testing high in butterfat. Young stock for sale. A few choice—milk calves of 1908 ready to ship. Prices right. Write
W. F. STEPHEN, Huntingdon, Que.

NEIDPATH AYRSHIRES
Bull Calves dropped this spring. By imported Bull. First prize Toronto, Ottawa, and Halifax. Long distance phone
0-35-09 W. W. BALLANTYNE, Stratford, Ont.

LAKESIDE STOCK FARM
Ayrshires, Clydesdales and Yorkshires. Special prices for early delivery.
GEO. H. MONTGOMERY,
Phillipsburg, Que.
9-9-10-09

SPRINGHILL AYRSHIRES
Imported and home bred stock of all ages for sale. See our stock list and shipping shows this fall. Write for prices.
ROBT. HUNTER & SONS,
Long distance phone. **Maxville, Ont. E-55-09**

HOLSTEINS

FOR SALE—30 HEAD OF HOLSTEINS
If you are wanting a choice young cow or heifer it will pay you to write me before making your selection, or better come and pick them out.
GORDON H. HARWARD,
E-4-09 **Manhard P.O. Leeds, Co., Ont.**
7 miles north of Brockville on C.P.R. (Clark's Crossing)

FOR SALE
The richly bred bull breeding De Kol Keyes No. 359, Vol. 2, is 4 yrs. old. His genotype indicates his breeding. He is gentle and right every way, beautifully marked, straight and level, fine soft hair and hide; is one of the best bred bulls in Canada. Price \$150 to a quick buyer. Also young calves, both sexes, sired by Duchland Sir Hengerveld Mapcroft, and from first-class dams.
A. D. FOSTER, Bloomfield, E-3-29-09

LYNDALE HOLSTEINS

Hand your Herd with a son of Sara Hengerveld Koryly's whose dam was recently sold for \$2,000. His 3 nearest dams average 20 lbs. butter each in 7 days. Only 2 of his sons left. We still have a few sons of Count DeKol Peltier, a dam, and a number of Heifers for sale. 1-27-10
BROWN BROS., LYM, ONT.

SPRINGBROOK HOLSTEINS

AND TAMBORNS
32 Choice Young Tamworths, from imported sires and sired by imported Knowning Dams. A few rich bred Holstein bulls and several females. Bargains to quick buyers.
A. C. HALLMAN,
Breslau, Ont.
E-11-10-09

HOME-BRED AND IMPORTED HOLSTEINS

We must sell at least 25 cows and heifers of this breed before we can see the natural increase of our herd. This is a chance of a lifetime to get a good bargain; we also have a few young bulls, Pontiac Hensley, Imp., son of Hensley's Defeat, the world's greatest sire, head of herd. Come and see them.
H. E. GEORGE,
Putnam Stn., 1½ miles-C. P. R. **E-48-09**

Well DRILLING MACHINES

Over 70 sizes and styles, for drilling either deep or shallow wells in kind of soil or rock. Mounted on wheels or on sills. With engines or hand power. Durable. Any experienced mechanic can operate them easily. Send for catalogue.
WILLIAMS BROS., Ithaca, N. Y.

GREAT IRISH CATTLE SHOW

ROYAL DUBLIN SOCIETY
SPRING SHOW 1909
at Ball's Bridge, Dublin
April 20th to 23rd

The largest collection of Pure Bred Bulls at any Show in the United Kingdom. Auction Sales of Cattle held on the premises. For particulars apply to the
Agricultural Superintendent
Leinster House, Dublin, Ireland

dom. There are a few Eastern cheese about that could be picked up at 12c to 12½c but the supply of this grade is small.

The butter market has been dull and dragging all through the week. The trade has been of a hand to mouth character as the grocers are looking for still lower prices, and will only buy for immediate requirements. Prices during the week have been steady at 20c to 21c for creamery, as holders have been reluctant to part with the goods at less money, and are holding on a little longer in the hope that a quantity of the stock in store here will be removed from this market, and re-grades. A considerable quantity is offering at from 10c to 11c. There is a large quantity here, and it is meeting with a very slow demand.

ROCK SALT for Horses and cattle, in tons and carloads.
Toronto Salt Works, Toronto.

FOR SALE AND WANT ADVERTISING

TWO CENTS A WORD, CASH WITH ORDER

SPECIAL SALE—White Wyandotte pullets, one fifty each. Eggs from prize winning Pouter, two dollars setting. Poultry grit, sixty cents. Hundred—Highland Park Poultry Yards, Westboro, Ont.

FOR SALE—A Fairbanks two-horse power gasoline engine, and a Clipper grain mill, sixty cents. Hundred—Highland Park Poultry Yards, Westboro, Ont.

WANTED—Four experienced men (Scottish preferred) on a dairy and stock farm. Must be good milkers and teamsters. Apply, stating wages wanted, to Box 9, Farm and Dairy.

FARM HANDS—Good, experienced. Wants situation on farm, good horse and cattle able to handle in fruit farming; reliable and trustworthy; age 35. Box A, Farm and Dairy.

FARM HAND wants work—Seven years' experience; strictly temperate; state wages. Box A, Farm and Dairy.

FARM HAND WANTED—Young Scotch man preferred; will hire by year. Box C, Farm and Dairy.

MISCELLANEOUS

JOS. FEATHERSTONE & SON, Streetsville, Ont. Large Yorkshire Hogs for sale. E-1-09

R. H. HARDING, Maplevue Farm, Thorold, Ont. Dorset Sheep a specialty. Telephone. E-17-09

J. A. GOVONLOCK, Forest, Ont., Herefords, Canada's greatest sire. Toronto and London, 1907-1908. Stock all ages, for sale. E-17-09

HARRISON BROS., Mt. Albert, Hereford cattle, Oxford Down sheep. Stock for sale at all times. E-17-09

BERKSHIRES AND TAMWORTH
Choose Berkshire Boars for service and sows ready to breed by imported sires—Tamworths, all ages, by Toronto and London prize winning boars. Prices low, considering quality.
J. W. HODD, E-6-30-09
Maple Leaf Stock Farm
Corinth, Ont.

AYRSHIRE NEWS

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

AYRSHIRE BREEDERS' ASSOCIATION
The 34th annual meeting of the Ayrshire Breeder's Association was held at the Manhattan Hotel, New York, on February 3rd, 1909, with about 50 members and others present.

The report of the secretary showed remarkable gains in official tests of Ayrshire cows and heifers, the result of the Advanced Registry Tests inaugurated a few years ago. The testing the past year has developed a World Champion in each class as follows:

Rena Ross as a mature cow gave 15072 lbs. of milk and 751 lbs. of butter, owned by John K. Valentine, Bryn Mawr, Pa.
Bessie de Rosemont as a four year old gave 14,102 lbs. of milk, and 675 lbs. of butter, owned by George H. McCadden, Bryn Mawr, Pa.

Jennie of Sandhill, as a three year old, gave 10,150 lbs. of milk and 510 lbs. of butter, owned by S. S. Karr & Sons, Alton, N. Y.
Madonna Lass 3rd gave as a three year old 10,467 lbs. of milk, and 502 lbs. butter, owned by L. A. Keyman, Wheeling, West Virginia.

Baby Douglas as a two year old gave 885 lbs. milk and amount of butter, owned by L. A. Keyman, Wheeling, West Virginia.

The Association voted \$30.00 each as special premiums for Ayrshire shown in the ring at the Alaska-Yukon-Pacific Exposition, and the National Dairy Show in this fall.

The officers elected for the ensuing year were: E. J. Fletcher, Greenfield, N. H., president; J. F. Converse, Woodville, N. Y., vice-president; George E. Pike, Gouverneur, N. Y., vice-president; J. W. Clae, Seattle, Washington, vice-president; J. A. Ross, Auburn, Maine, treasurer; G. M. Winslow, Brandon, Vt., secretary and editor; N. B. Winsor, Greenville, R. I., treasurer; F. Schuch, Union, N. Y., Executive Committee for three years; Howard Cook, Beloit, Ohio, Executive Committee for three years; Auditor, Geo. H. Yeaton. A banquet with 44 covers was served after the meeting.

G. M. WINSLOW, Secretary,
Brandon, Vt.

GOSSIP

WELL-DRILLING MACHINERY
Williams Bros., Ithaca, N. Y., the well-known makers of well-drilling machinery, have just published for gratuitous distribution a catalogue illustrating and describing over seventy styles and sizes of machines for drilling either deep or shallow wells, in any kind of soil or rock. The drilling machines made by this company contain all the latest and best improvements guaranteed to be strong, simple and durable, and are easily operated. For drilling wells for house water, barns, and for prospecting for coal, gas, etc., they are without an equal. It will pay those who are about to start into the business of drilling wells, to send for a catalogue ready on well-drilling machinery to write for a copy of this catalogue.

REMEDY FOR LICE AND TICKS

Messrs. Wm. Cooper & Nephews:
In reply, I received your sample of Fluid, which will kill lice on sheep for ticks, and for lice on calves, and it is sure death to them. I recommend it to all farmers and sheep raisers. I will send you an order as soon as my supply runs out.—(Sig.) James Bryson, Brysonville, Que.

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HOLSTEIN-FRIESIAN NEWS
 The Canadian Dairyman and Farming World is the official organ of The Canadian Holstein-Friesian Association, all of whose members are readers of the paper. Members of the Association are invited to send items of interest to Holstein breeders for publication in this column.

HOLSTEIN-FRIESIAN OFFICIAL TESTS FOR JANUARY, 1909.

Idealine Pauline De Kol (10085) at 8 y. 2 m. 15 d. of age, 17.17 lbs. butter fat, equivalent to 20.09 lbs. butter; milk 55.6 lbs. Owned by George Rice, Tillsonburg, Ont.

Flora Wayne Saracaste (5316) at 3 y. 10 m. 6 d. of age, 16.77 lbs. of butter fat, equivalent to 19.57 lbs. butter; milk, 40.7 lbs. Owned by David Coughell, Yermouth Centre, Ont.

Tride Marguerite 2nd (7432) at 5 y. 5 m. 27 d. of age, 25.38 lbs. butter fat, equivalent to 17.94 lbs. butter; milk, 43.09 lbs. Owned by M. H. Haley, Springfield, Ont.

Queen De Kol Posch (5564) at 4 y. 1 m. 19 d. of age, 14.87 lbs. butter fat, equivalent to 17.35 lbs. butter; milk, 37.4 lbs. Owned by M. H. Haley, Springfield, Ont.

Queen's Buter Girl (8045) at 2 y. 11 m. 4 d. of age, 10.53 lbs. butter fat, equivalent to 12.29 lbs. butter; milk 32.0 lbs. Owned by George Rice, Tillsonburg, Ont.

Acme Sadie Pauline (5992) at 2 y. 8 m. 13 d. of age, 9.84 lbs. butter fat equivalent to 11.48 lbs. butter; milk 33.1 lbs. Owned by A. C. Hallman, Breslau, Ont.

Arah Veeman (10085) at 1 y. 11 m. 29 d. of age, 6.56 lbs. butter fat equivalent to 10.00 lbs. butter; milk 25.0 lbs. Owned by George Rice, Tillsonburg, Ont.

Calamity Starlight Buter Girl (10065) at 2 y. 20 d. of age, 8.40 lbs. butter fat, equivalent to 9.83 lbs. butter; milk, 25.0 lbs. Owned by George Rice, Tillsonburg, Ont.

Edith Anthony 2nd (10359) at 2 y. 11 m. 12 d. of age, 4.10 lbs. butter fat equivalent to 3.48 lbs. butter; milk, 27.5 lbs. Owned by George Rice, Tillsonburg, Ont.

Clemson.

COW TRANSFERS FOR JANUARY, 1909.
 The publication of these transfers, as paid for by the Holstein-Friesian Breeders' Association.

Lida Posch, Logan Bros., to W. Leifoy Ferguson, Sussex, N. B.

Lilly Acme 2nd, W. H. Hawse to Isaiah A. Parker, Toledo, Ont.

Lily De Kol, Victoria, Estate of Wm. Cleland to Robert A. Cleland, Listowel, Ont.

Lily Witeyde, Delorima Patterson to J. B. Arnold, Easton's Corners, Ont.

Lucey Bell, William T. Bell to Walter L. Wilson, Willettsville, Ont.

Lucey Sweep De Kol, William T. Bell to Walter L. Wilson, Willettsville, Ont.

Lula Cornucopia De Kol, J. A. Caskey to William Pollock, William's Corners, Ont.

Maid of Killarney 2nd, Edgar Burch to Arthur Mitchell, Hamilton, Ont.

Maria, Logan Bros. to W. Leifoy Ferguson, Sussex, N. B.

Matilda Pauline De Kol, Edman Brown to Dr. W. R. Watson, Burlington, Ont.

May Bell W. Gordon H. Manhard to J. Sheridan, Toronto, Ont.

May Flower De Kol, Charles Willoughby to Jacob Halpeny, Easton's Corners, Ont.

May Flower Gypsy, H. E. George to Isaac Bateman, Innesfall, Alta.

Myosie's Pieterjie, J. M. Cline to B. R. Barr, Hartsville, Ont.

Mechilde Pauline De Kol, Matt Richardson to D. Jones, Jr., Calverton, Ont.

Mechilde Pauline, De Kol, D. Jones, Jr. to E. J. Book, Danawau, Ont.

Merceda Dolly Banks, Elias A. Smith to Harvey J. Singer, Otterville, Ont.

Mette, St. Melanie, P. Bonin to Eria Bar. rone, St. Melanie.

Mina, Abbecker Pauline, D. Jones, Jr. to A. Lamb, Nelles Corners, Ont.

Minnie Vrouka, W. H. Hawse to Isaiah A. Parker, Toledo, Ont.

Miss Sadie Pieterjie, George Pallett to George Wm. Pallett, Hartsville, Ont.

Modest Belle, John Rodger to Monroe Pure Milk Co., Winnipeg, Man.

Modest Belle, John Rodger to Monroe Pure Milk Co., Winnipeg, Man.

Modest Lass 2nd, John Rodger to Monroe Pure Milk Co., Winnipeg, Man.

Mountain Duchess, Ed. H. Graham to J. H. Caldwell, Fallowfield, Ont.

Mysta 2nd, George O. Brown to W. D. Mott, Lya, Ont.

Nannet Topsy Clothide, O. Little to Manhard & Little, Manhard, Ont.

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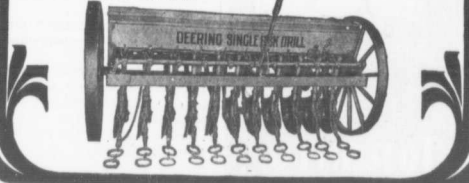
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This proves to us that Safe Lock roofing is a positive guaranty against lightning.

Anyway, we are willing to show our faith in Safe Lock Shingles and will protect you from lightning without one cent additional cost to you, directly or indirectly.

Safe Lock Shingles are sold at the same price as shingles known to be inferior in quality of steel, galvanizing and construction.

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Again: Safe Lock Shingles are the only shingles that completely protect the roofing nails from weather.

—The only shingles that have three thicknesses of steel along the upper edge of lock, thereby doubling the strength along the line of greatest strain.

—The only shingle galvanized after the sheets have been accurately cut

We want you to know what some of the users of Safe Lock Shingles say of them.

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J. C. PAYNE, Cayuga, Ont.—“It must be ten years now since I bought the metal ‘Safe Lock’ Shingles, and up to this time I have no reason to regret their purchase. We have had wooden roofs put on since which are open in spots from the splitting and shrinkage of shingles. No difficulty, so far as I have noticed at least, has arisen with your Metal Shingles, and the roof seems compact and durable. So far as I have been able to see, I have seen no wear or injury to the shingles during the ten years’ use, and cannot see but that the roof is just as good as when it went on.”

MURDOCK McKENZIE, Bear Line, Ont.—“The ‘Safe Lock’ Shingles have never given me any trouble, and they appear to us as good to-day as the day I put them on. I am well satisfied with them, as I believe them to be the best roofing that can be used on barn buildings.”

GEO. HARDY, Ashgrove, Ont.—“It will be eight years in June since the barn was shingled. I never had any trouble with it in any way, and it appears to be as good as when put on. I have been recommending your shingles as the best that can be got.”

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Send to-day for our book, “The Truth about Roofing” and full details of our Fire Insurance Policy payable in cash if your Safe Lock Roof is damaged by lightning.

The Metal Shingle and Siding Co. Ltd.

“Roofers to the Farmers of Canada”

Dover Street Factory, Preston, Ontario

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 Please send me your booklet “Truth about Roofing,” with full particulars of your Free Safe Lock Lightning Insurance Policy.

I expect to build Kind of Building

Size of Roof
 If interested in any other Metal Building Goods please state such fact here.

Name
 P.O. Province

Give length of roof along ridge; also distance from ridge to eaves, and we will send approximate cost of a Safe Lock Roof. ft. in.

My roof measures ft. in.

Only One Kind of Roof I Know of is Guaranteed for 25 Years.

OSHAWA Galvanized Steel Shingles make a roof that is not only guaranteed, under seal and with \$250,000 back of it—guaranteed to be and to remain a **perfect** roof for twenty-five years: It is the only roof I know of that is sure to be a good roof for a **hundred** years. It's steel, you see, to start with—heavy (28 gauge) sheet steel of high quality. Can you imagine steel wearing out?—on a roof.

STEEL'S only real foe is rust; but rust cannot get at the steel of an Oshawa-shingled roof, because every shingle is heavily **galvanized** on both sides—coated with a tin-and-zinc smelter that perfectly protects the steel against every form of rust.

THAT is why you will never need to paint an Oshawa-shingled roof; it doesn't need painting, because the heavy galvanizing is a far better protection than paint could ever be. Think what you save by putting on a roof that needn't be painted, and yet will be a good roof for a hundred years!

DON'T imagine our guarantee is any mere form of words. It says, in plain English, that if any Oshawa-shingled roof, put on right, leaks, or is at all unsatisfactory within 25 years we will supply and put on a new roof free of all cost to you. Is that fair and square? Did you ever hear of another roof that had such a guarantee back of it?

DON'T get the idea, either, that cost is a big factor in roofing



really **right**. An Oshawa-shingled roof's **first** cost is no more than the cost of an ordinary wood-shingled roof! It's **final** cost is ten times **less**

AND lightning cannot damage a building covered with Oshawa Steel Shingles, because these insulate the building—the bolt may strike the structure, but it can't damage it. Such a roof is far, far, better insurance against lightning than any lightning rod system that ever was.

ANYBODY who can use a hammer and snips (tinner's shears) can put these Oshawa Shingles on right—easily and quickly. They lock underneath, on all four sides, so that every nailhead is completely covered with galvanized steel and the whole surface hasn't a seam nor a crevice.

SUM it all up—a roof that costs one-tenth what cheapest wooden shingles cost; a roof that is absolutely weather-proof, fire-proof, lightning-proof; a roof that is guaranteed to be a perfect roof for 25 years (or a new roof for nothing)—sum it all up—wouldn't

it be wise for you to send to-day for the booklet that tells why **YOU** should roof right? Just send a post-card to-day to our nearest warehouse.

Ask for Roofing Right Booklet No. 9.

G. A. Pedlar.

PEDLAR PRODUCTS include every kind of sheet metal building material—too many items to even mention here. You can have a catalog—estimate—prices—advice—just for the asking. We'd like especially to interest you in our Art Steel Ceilings and Side Walls—they are a revelation to many people. More than 2,000 designs. May we send you pictures of some of them?

"OSHAWA" GALVANIZED STEEL SHINGLES

A new roof for nothing if they leak by 1934

than the cheapest wood-shingled roof! And an Oshawa-shingled roof is more than rain proof, more than snow-proof, more than wind-proof. It is not only an absolute insurance against leaks, but it is an insurance against **fire** and against **lightning**! Is that worth considering?

OF course you know that flying sparks or red hot embers couldn't possibly set fire to a roof covered with one seamless sheet of steel. That one fact alone makes an Oshawa-shingled roof earn money, because such a roof gets you a lessened fire-risk premium on any building.

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WE WANT AGENTS IN SOME SECTIONS.

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