

Seed Selection and Testing Means Bigger Crops

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The CANADIAN DAIRYMAN AND FARMING WORLD

Founded by A.
(Chief Dairy Expert)

PETERBORO, ONT., MARCH 11, 1908



Some of the Farmers' Institutes and Agricultural Societies in Ontario are doing splendid work holding 'Spring Seed Fairs. The exhibits shown in the illustration were made at the Annual Fair held jointly by the 'South Puslinch Farmers' Club and the South Wellington Farmers' Institute

DEVOTED TO
BETTER FARMING AND
CANADIAN COUNTRY LIFE

Is Our Hog Industry in Danger?

D. C. Platt, Millgrove, Ont.

Until recently I believed that the hog market would improve in the spring, but since visiting some of the custom houses, and finding American pork is being brought into Canada, and purchased by the packers, I have changed my mind, and have come to the conclusion that unless the tariff is increased, the hog business is doomed. It is now two cents a pound on pork in Britain, three cents a pound on green. The value of pork in the United States is so low, our packers have every advantage over the farmers here. They are able to draw from the United States sufficient supplies for at least half, or more, of their trade. This leaves the Canadian farmers at the packers' mercy. They have to accept whatever price they see fit to pay for hogs.

One of the subjects that might be discussed with profit in the columns of The Canadian Dairyman and Farming World, "Is the hog industry of Canada in danger of deteriorating. If so, what is the cause, and how can it be remedied?" My answer would be, Let the farmers run their own business under Government control, on the co-operative plan. Every share per to be paid for their goods according to quality and value, when ready for Montreal and the United States are the only two countries that do not brand their products going into the English markets. The fact that Canada does not brand its products, allows Americans to send their goods to England and to put them on the market as Canadian products. While in England I found many stores the thick, fat American corn-fed hog being sold as Canadian pea fed.

If the packers had acted wisely, or even fairly, they would have been second to no country in the world in producing the kind of bacon that suits the Englishman's taste. We should discuss this very important question—give the devil his due, and let the chips fall where they may.

Are Testing for Themselves

The Government report, that was issued recently, and which indicated that the milk sold in Toronto is about the poorest produce for any leading city in Canada, has aroused the officers of the Toronto Milk Producers' Association. Recently they obtained 11 samples of milk for themselves, from different loads of milk. These samples were sent to Guenep, and tested. The lowest tested 3.2. One tested 4.8, and another 4.8. It was thought that possibly the two last mentioned samples were taken from the top of the can, and therefore they are not counted with the rest.

The average test of the 11 samples was 3.72, the average test of the nine samples, not including the two highest, was 3.5. The average is considerably higher than that given in the Government report. The officers of the Association, purpose having more samples tested in the same way.

Buying Seed for the West

The Steele-Briggs Seed Company, of Toronto, is purchasing considerable quantities of seed in Ontario on behalf of the Dominion Government for shipment to the North-West. As will be remembered, the Dominion Government recently appropriated three million dollars to be devoted to the purchase of seed for those farmers in the West who last year failed to grow seed of their own. So far, the Steele-Briggs Seed Company has forwarded five cars of strictly selected seed oats, and more are being purchased. A firm at Kingston is also purchasing considerable quantities of the seed.

The seed is purchased through agents in the country, and is being

inspected by Mr. T. G. Raynor of the Seed Division, Department of Agriculture, Ottawa. Mr. Raynor is inspecting the seed for purity at the farmers' barns. All the seed purchased has to comply with the requirements of the Seed Control Act, for purity. It must not contain more than one-fifth of any of the 14 noxious weed seeds mentioned in section 8, of the act. Among those for which oats are condemned are wild oats and wild mustard. The fact that in some districts where more or less clean farming is done, some of the farmers' seed was refused, because of its impurity, teaches the important lesson that the source of seed supply should be very carefully selected for purity. The farmers who have a good, clean, supply of seed, are being paid a better price than obtains for ordinary feed oats.

"In some localities," said Mr. Raynor, to a representative of The Canadian Dairyman and Farming World, "where some of the best seed oats have been purchased, probably not more than 50 per cent. of the farms could be considered safe to buy seed from. In the Grand River Valley, for instance, where the river overflows its banks, scarcely any of the seed oats which have been examined, were free from mustard. Apart from that, this district seems practically free from wild mustard and wild oats. There are comparatively few districts in Ontario, in which this can be said."

Mr. Raynor stated that the Government is buying considerable quantities of seed in the Maritime Provinces, Manitoba and Southern Alberta. The seed being purchased in Canada is being inspected by officers of the Seed Division, and being rushed through to the West as rapidly as possible.

The Special Prizes

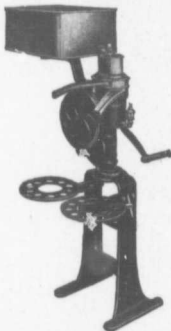
Besides the general prizes given in The Canadian Dairyman and Farming World, three special prizes amounting to \$50, were donated by the City Dairy, Toronto, to the three highest competitors, sending their milk to the City Dairy. The first special prize (\$25) was won by Mr. D. J. McClure, Churchillville, who won also the third general prize of \$50. The second special prize (\$15) goes to Mr. Thomas Hartley, Downsview, who stood sixth in the general list. The third special prize has not yet been awarded.

A description of the two leading farms, Mr. George McKenzie's and Mr. David Duncan's, will be given in the next issue of The Canadian Dairyman and Farming World. This description will comprise full information on the methods pursued by these men in the management of their farms and dairies.

Mr. Robinson's Jersey Herd

In looking over the Inland Revenue Department Bulletin, No. 142, dated September 24th, 1907, lately issued, which gives reports of the quality of milk sold in different parts of the Dominion, we note that sample No. 29,560, taken on August 22, 1907, from a 16 quart can in delivery wagon, belonging to Fred P. Robinson, Proprietor of "The Nashwaakias Dairy Farm," Fredericton, N. B., showed 7.56 per cent. of butyric fat, milk 16.30 per cent. of total solids. This is the highest in butter fat, with the exception of two of the entire samples tested in the Dominion, and these two are not quoted as taken from a delivery wagon.

Also, Mr. Robinson's milk shows more than double the percentage of matter fat in the average sample supplied in the city of St. John, and nearly double of that supplied in the city of Fredericton; and, in fact, more than twice as rich as standards required in any city in the Dominion.



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The CANADIAN DAIRYMAN AND FARMING WORLD

AGRICULTURE, THE KEYSTONE OF CANADIAN PROSPERITY

Vol. XXVIII.

FOR WEEK ENDING MARCH 11, 1908

No. 8

Testing Seed Grain*

Testing seed grain is absolutely necessary in order to get the highest results in farming. Good seed is at the foundation of good farming. It takes nearly as much work to get a crop of 30 bushels an acre, as it does to get a crop of 50 bushels an acre. The difference in yield may be dependant largely on the seed.

As a preliminary to testing, all the seed should be carefully screened with a fanning mill, and only the largest and plumpest whole seeds should be saved for sowing. This applies to any kind of seed, and, especially, to root seed. During this process, all the weed seeds possible, and the dirt should be removed. Where it is possible to discriminate as to the age of seeds, old seed should not be sown, since most seeds deteriorate in germinating power very rapidly after the first year. It is not always necessary for the farmer

to test seed of his own growing, provided he selects the best and sows only the fresh seed each year. Testing is always advisable, however. Frequently the farmer must buy his seed, and then testing must be resorted to, or he will not know what he is getting. Appearances are deceptive, and even though the seedman gives a guarantee as to germinating power, it will be advisable to make a germinating test, as the seedman will not make good any losses sustained after the seed is once on the ground. Again, if the farmer finds it necessary to sow old seed, it should first be tested, so that he will know what quantity to sow an acre, in order to get a good stand of grain.

Many persons test the germinating qualities of seeds by observing whether they are smooth, plump, glossy and of good weight. Seeds which sink readily in water, and pop when placed on a hot stove are considered good by many farmers and seedmen. None of these tests, however, are sufficient. In some cases they are of no use whatever. Actual sprouting, or growing of the seed, is the only final test of germinating power.

The selection of seed for germinating tests, demands painstaking effort, and good judgment, in order that the seeds used may fairly represent the sample. This selection may best be made from a bag which is a good average of the whole lot. Empty this bag on a clean floor, and shovel it over several times in order to have it fairly mixed. Then take samples from various places in the pile, mix them thoroughly and select a sample from this. Pick out from this sample, 100 average seeds for testing.

*From an interview with Prof. Zavits, of Guelph, by a representative of The Canadian Dairyman and Farming World.

There are two plans, or systems of testing the germination of seeds. One is by the simple sprouting of the seeds, and the other the actual growing of them. The former is a very convenient and an easy method, but has the disadvantage of not properly showing the vitality of the seed. Many seeds that have not the sufficient vitality to grow into useful plants, will sprout or germinate. These are of no use to the farmer. It is only by the method of actual growth of the plant that one can be sure of their value as seed.

A method of simple germination, that is very convenient for use with small seeds, is as follows: Take two pieces of blotting paper, or several strips of cloth and put between these the 100 seeds selected. Dampen the whole, place on a plate, and invert another plate on the top. Moisten occasionally, and take out and keep

placed. The depth for planting should be regulated, according to the size of the seed; if the seeds are small, they should only be nicely covered. Place the 100 seeds in the holes, one in a place, cover, and press down with the fingers. Keep the soil watered, with a spray, if possible, and observe, not only the number of plants that come up, but also their vigor of growth.

Both of these methods can be conducted at the temperature of an ordinary living room, and at any time of the year, as long as there is not too wide a variation of temperature. Yet many of our grass seeds, such as timothy, meadow fox tail, and blue grass, seem to require certain variations of temperature, which represents the difference between night and day during growing water.

Beet and mangel seed differ somewhat from our ordinary seeds in that what appears to be a single seed, is really a cluster of several seeds. One should not be surprised, therefore, if two, three, or even four plants, are produced from one seed. Since only one of these would be of any use finally, in the field, it would be advisable to count each cluster as one plant, and figure with 100 as the standard, the same as with the other kinds of seeds.

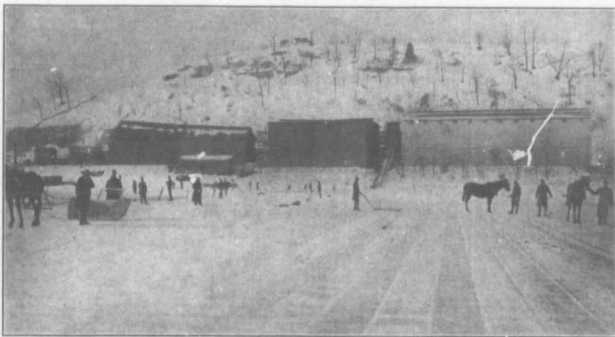
Now, is the time to make these tests, so as to be ready for the spring season. Either of the methods described may be used by any one with very little experience, and they require practically no outfit for equipment. There is no excuse for any one not knowing what he is planting, and a little time judiciously spent in testing now, will increase materially the harvest next fall.

Spring Care of the Brood Sow

Joseph W. Barnett, Ontario Co.

I like my brood sows to have plenty of exercise. They are given a dry place to sleep in and I let them have the run of the barnyard all winter, only penning them up at nights for a short time, before I expect them to farrow. After they farrow I let the sows out a few minutes every day. When the little ones get smart, if the weather is warm I let them go out with the sow, regulating the time to leave them out by the size of the pigs and the state of the weather.

I make roots the basis of the sows feed, with enough light grains, mixed in her slop to keep her in good flesh, gradually reducing the roots and increasing the grain as farrowing time approaches and follow on with the same feed after she farrows, only increasing the roots again.



ICE HARVESTING SCENE.

Herewith is shown an ice harvesting scene. This is an important winter industry. As will be noticed, the work is being done on a large scale, the company operating same being engaged in the ice supply business. In the foreground on the left of the picture will be noticed a snow scraper with horse attached. On the right are to be seen a plow and marker, to which also horses are attached. To the rear of the snow scraper are a number of men cutting ice with hand saws, while a little to the right of them is a man with a hand ice plow which shows up rather indistinctly in the picture. It will be noticed, also, in the foreground that the field has been gone over with the marker, the markings being indicated by the squares. After the ice has been cut, it is floated to the shore and taken up into the buildings in the rear by means of the elevator, which can be seen in the illustration. This is the store when next summer's supply of ice should be gathered. In a few weeks it will be too late for another year.

count of the seeds as they germinate.

For larger seeds, or, in fact, for nearly all seeds, Prof. Zavits recommends planting in boxes of soil or sand. The sand usually is used, since it is the most convenient and least variable. Any kind of soil, however, may be used, provided it is not too sticky, and does not vary too much. The boxes should be 11 inches by 11 inches, said measurement, and three inches deep. This admits of the sowing of 100 seeds at a distance of one inch apart each way, leaving a margin of an inch around the outside. To get the seeds properly spaced, a cover is made to fit the box, and ordinary shingle nails are driven into this at the proper distances, leaving about one inch exposed, with the head left on. By turning the cover upside down on the filled box, and pressing on it, the soil will be compressed, and at the same time, the holes in which to plant the seeds, are made. On removing this lid carefully, nice sized holes will be left, into which the seed may be

I have had very good results from feeding ground wheat screenings to both the sow and her litter. Shorts and ground oats are very satisfactory. As soon as the pigs are old enough, I feed them a little skim milk in a separate trough adding a little shorts or chop as they become older.

Rural Telephone Lines Growing in Favor

The rapid growth of rural telephone lines in Ontario, and, in fact, in Canada, is the best evidence of the increasing popularity of this useful adjunct of farm life. Recently a rural telephone service was established in the township of Rochester, in Essex County, Ont. This system follows the road for 20 miles, passing through the Township of Rochester, Maidstone and Tilbury West. On this line there are 72 telephones in operation, and already the town council has received petitions for 30 more telephones. Although the service has been in use for only a short time, it has been installed long enough for the subscribers to express themselves as highly pleased with the results.

THE COST OF THE SERVICE

From a very careful detailed account kept during the cost of installation, it was found that the cost of the telephones to each subscriber was a trifle under \$40. Along 10 years in which to pay this amount, the interest on the unpaid principal, at three per cent, would amount to \$1.20 each year. Then, the cost of operating the exchange which, by arrangements made, amounts to \$1, thus making a total yearly outlay of \$6.20 each year for 10 years.

The advantage of local telephone lines is that they are owned and operated by the community, and not by corporations, whose object is the making of a profit. Every subscriber is directly interested in the successful operation of the line, and thus matters requiring attention are important to every subscriber.

WHY THEY ARE VALUABLE

Space here is too limited to enumerate the many uses to which the telephone may be put. It is useful for getting into immediate communication with your nearest neighbors, or those living 5 or 10 miles distant. It can also be used to speak with villages, towns, and cities several hundred miles away, for summoning a doctor in case of sickness, for calling aid in the event of fire or burglaries, for learning the news of the community, and many other purposes. Wherever reliable telephones have been installed in rural communities, they have paid for their cost, in many cases, in less than a month. Statements that have been made to us show that they have been found so useful that farmers would not part with them for almost any price, if they could not be duplicated.

GET A GOOD SERVICE

Any of our readers who are planning to install a telephone service, should receive positive assurance beforehand that the telephones they install are absolutely reliable. An unsatisfactory service is most annoying. A telephone to do good work, must convey the sound of the human voice in a clear, distinct manner; it must be made of the best material; it must be so constructed that it will stand for years, without the service being affected in any way. There are many apparently good telephones, which look all right when they are first installed, but which, after four or five months' use, become almost useless. Upon the proper selection of the telephone depends its usefulness and reliability. See that the telephone installed in your community is the best on the market. Even if it costs a trifle more than a cheaper make, the satisfaction that you will experience will more than compensate for the difference in cost.

WHAT THE PEOPLE SAY ABOUT FREE RURAL DELIVERY

The Fifth of a Series of Articles Written for The Canadian Dairyman and Farming World, by an Editorial Representative of this Paper, who Recently Visited the United States, with the Object of Studying the Free Rural Mail Delivery System.

NOTHING the United States Government has done for the farmers, has been as universally approved as the introduction of free rural delivery. People living in cities and towns, including some of our Canadian post office officials, do not appear to realize that our present system of mail distribution, in country districts, imposes a heavy tax on our farmers. This tax is not one that can be figured out in dollars and cents. The burden it imposes is none the less great.

It is paid by our farmers through the time they lose and the trouble they are put to when they have to walk, drive, or send for their mail. Many of our farmers have to drive three or four miles for their mail or do without it for days at a time. When they do without, they are taxed another way; that is, by being kept out of touch with the news of the country side and of the world and by the losses they sustain through not being informed in regard to the latest market quotations. Sometimes this tax is a heavy one.

Until free rural mail delivery was introduced the farmers of the United States were taxed in the same manner that our Canadian farmers are now. The advent of free rural delivery changed everything. It was not until some of them began to have their mail delivered at their doors daily, that they realized the benefits they derived through receiving the daily paper. They then understood how great was the tax they had been paying.

A SUCCESSFUL EXPERIMENT

When free rural delivery was first started, the United States Government announced that the service was being tried only as an experiment. After the service had been tested for two years, the Postmaster General sent a circular letter to farmers and to each postmaster from whose office a rural free delivery service had been established. The postmasters were asked what were the sentiments of the people in regard to the benefits of the service, if the mail matter handled by the carriers had increased and for other similar information. The letters received showed that the farmers were practically a unit in endorsing the service.

The following extracts were taken from only a few of the letters received at that time. With two exceptions, the letters are from people living in northern states adjoining the Canadian boundary, where the conditions prevailing are closely similar to those we have in Canada.

MAINE

Gorham, Me.

"I cannot find words to express my appreciation of free delivery. It is something I always wanted, but never expected. There is more mail comes on this route than would come on the old system, especially daily papers. I cannot see why it could not be extended and still pay."

P. I. Libby.

North Deering, Cumberland Co., Me.

"The people are very much pleased to have the mail brought to them, and desire its continuance. The amount of mail has increased since the start as follows: July, 1907, 1,436; August, 1,628 pieces. July, 1908, 1,770; August, 1,856 pieces. There has been an increase in the delivery of newspapers."

Mrs. Hannah D. Cobb, Postmaster.

Highfields Poultry Farm, West Falmouth, Me.

"I have found the rural free delivery service very beneficial, and in fact I do not see how we ever got along without it. I think that there would be fewer abandoned farms if the rural delivery

were extended, as it brings city ways to the farmers and lessens the desire to leave the farm. I would strongly advocate that the money appropriated by Congress for the free seed distribution should be used toward the support of the rural free delivery. Our mail delivery has been very satisfactory, and our carrier has been very obliging."

Chas. G. Purrington.

ARIZONA

Tempe, Ariz.

"Rural free delivery changes the entire environment of farm life. The great question ever since the close of the civil war has been, what can be done to keep our boys on the farm? City life seems to draw them. Early in the day we receive the 'daily' and the news from all parts of the world, and five or six times as much reading matter as is wanted. The result is, the young people have something to look forward to when the postman comes in sight and are contented with home or farm life. More rural delivery all over the land is the thing to preach from the housetops."

Henry C. Yaeger.

CALIFORNIA

Post-office, Los Gatos, Santa Clara Co., Cal.

"I have made five trips with the carrier over the route just established and found there were 167 families, and a few more on the side roads, that are going to put boxes on the main roads. All are not having their mail delivered as yet, as they are waiting to get suitable boxes. Went to see Mr. Dexter about going across his place to get to the Quilo road. Found him very much pleased with the idea of the delivery, and he went to work and put his road in good condition, as did also his neighbors, so we have good roads all over the route, and the carriers can get over it all in three and one-half hours."

W. C. Campbell, Postmaster.

MICHIGAN

Climax, Kalamazoo Co., Mich.

"I would much rather give \$5 out of my own pocket each year than to have rural delivery discontinued, as I cannot afford to travel five miles and back every day to keep posted on the markets and news of the day. I have talked with many since your letter came to hand, and they say that, having got a taste of a good thing, they would be lost without it."

Albert J. Harding.

Ridgeway, Lenawee County, Mich.

"The sentiments of the patrons reached by the rural free delivery from this office, are that it is a perfect success, and all desire that it be continued permanently. The mail matter handled increased very much. The service on this route did not commence until May 2, 1898. The aggregate number of pieces delivered and collected from May 2, until June 30, inclusive, was 6,967. The aggregate number of pieces collected and delivered for the months of July and August was 8,462. The increase in newspapers has been large. The patrons availed themselves of the opportunity to have the carrier carry express packages. The merchants here send many packages by the carrier; also the Western Union envelopes, and all seem pleased that they have the chance of such good service."

W. C. Culbertson Postmaster.

Ridgeway, Mich.

"It meets with the greatest favor from everyone along the route. Many, like myself, were

obliged to go four miles or more to get their mail, which entirely excluded us from taking a daily paper before we had free delivery. It seems to me that it must be paying for nearly so, thus far, and, in my opinion will pay better after it is once permanently established. It is considered just that we should have free mail delivery once a day, as we contribute our share to the general expenses of the Government, and should receive some direct benefits. People in the cities have free mail delivery four or five times a day. We are content with one a day."

Wilbur D. Eastick.

Tipton Cheese Company, Secretary's Office,
Tipton, Lenawee County, Mich.

"Rural free delivery is of great benefit and pleasure to us. We would feel almost as bad over losing it, as we would to lose our homes. It is a step in the right direction, and surely our Government can never make a retrograde movement. Though it may require a slight addition to the funds, I think the service should be extended to all the thickly settled portions of the country. I am satisfied that there can be a saving of at least one-third made in handling the mail of our township, and yet have the service extended nearly one half, by letting the handling of all the mail to the lowest possible bidder."

William A. Beebe.

of daily papers taken, for you have seen the reports sent in from time to time by the postmaster; but I wish to call your attention to a few of the things which the free and regular delivery of mail in this section has accomplished.

First. It has enabled us to take daily papers, and thus keep posted on the markets, and, as a matter of fact, the farmers through this section have better prices for their commodities, simply from being posted on what the articles were worth in New York or Boston.

Second. This section has a great many centred farms, and many of the tenants change in the fall. Since the rural delivery went in to effect it makes it a better place to live in; in other words, we are not so isolated, and the results are that a better class of tenants are coming into the community—men who read, and are better citizens generally.

Third. Since the rural delivery went into effect, the value of land has increased, which can be traced directly to that as a cause. I am an administrator of an estate, and had to sell a farm situated on the second route, and the man who bought it, told me that it was one of the strongest inducements to buy the farm, because it was located on one of these mail routes. On route 2, in this town, prior to May 1, only four daily papers were taken, and now there is hardly a house on the route, so the carrier tells me, which

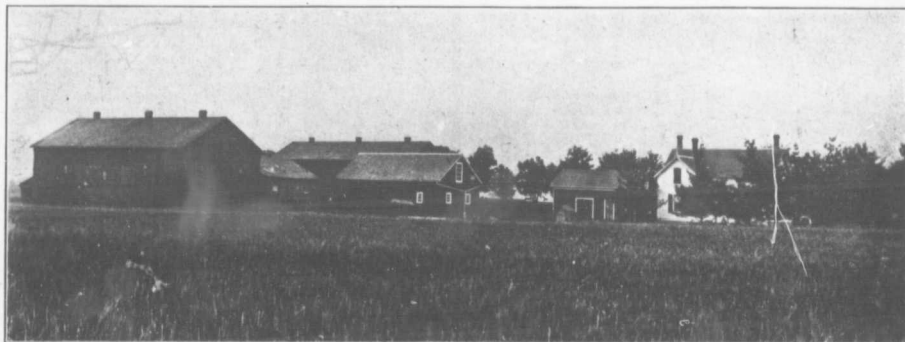
Ice Harvesting

R. M. Loveless, York County, Ont.

It is up to us as dairymen to strive to place our dairy products on the market in the best possible condition. Excellence of quality should be our motto. In order to attain the highest degree of excellence there are many details demanding attention. In milk production, two very essential requirements are: the judicious care and feeding of our cows, and the careful handling of their milk, particularly during the summer. When the thermometer registers 85 to 90 degrees in the shade, or during the close, sultry, muggy days of fall, the milk producer who is without a supply of ice is seriously handicapped.

A CHEAP HOUSE

A very simple and inexpensive ice house may be built thus: Having secured as shady a spot as possible, on ground that will allow water to drain away, place four corner posts with one in the centre of each side which boards may be nailed. The posts on one side should be about four feet longer than those on the other side, and those between should be cut as to allow for the slant of the roof. Scantling should be spiked from post to post across the ends at the top, and other scantlings laid crosswise to support the roof, which may be made of inch boards laid so that cracks are covered. For a door, place an extra door post in side where door is needed,



The Farm Home of Mr. R. M. Loveless, Agincourt, Ont., Fourth Prize Winner in our Recent Dairy Farms' Competition

Mr. Loveless' farm is conveniently arranged and can be worked to good advantage. When the judges visited the farm in July, the crops were in excellent condition. Upon the second visit, made in January, stock was looking well and everything about the stable was in a neat and sanitary condition. The buildings are not as large and expensive as those owned by some of the competitors, yet they are neat and well kept and sufficiently large in proportion to the size of the farm. By winning fourth prize Mr. Loveless secures \$30.

NEW YORK

Baldwinsville, Onondaga Co., N. Y.

"The general sentiment of the people is very much in favor of the continuance of free mail delivery. Nine-tenths of them would be badly disappointed to have it discontinued, and the other tenth is composed of chronic kickers, and people who have scarcely any mail, and have no interest in the world outside of their little shell. The amount of mail matter delivered has increased since the establishment of the service. There is only one class whom free mail delivery hurts in the least—that is the saloon keepers. There is now no excuse to come to town for mail, as the farmers stay at home and read, and our streets are quiet."

Martin Harrington, Postmaster.
Highland, N. Y.

"Not in my life has the Government at Washington, enacted any legislation which is so thoroughly appreciated as the free rural mail delivery. I need not speak of the increase in the number of letters written and received by the rural population, also the increase in the number

of magazines. The same is true of newspapers. Can you estimate the educational value of the system to the rural population? I say to you in all sincerity that, next to the public school, and the church, the free delivery of mail to the rural districts will, and does, do more for education than any, or all, other agencies now at work. We prize it for its true worth, and would deem it a great hardship to be deprived of it. The route has been recently changed, and now accommodates about 25 per cent. more people than at first, with no increase in the distance travelled by the carrier. The system is working well, and gives entire satisfaction, so far as I have been able to ascertain, and anything that I can do to make it more so, and to extend its influence and usefulness, will be cheerfully done."

George A. Fuller.

Thousands, yes, hundreds of thousands of letters similar to the foregoing, and all from farmers, could be published, were it necessary. Those given will serve to give some idea of what the farmers of the United States think of free rural delivery.—H. B. C.

utilizing centre post for the other door post, then cut inch boards to fit inside of posts. These may be placed in position as the ice house is being filled, and removed as the ice is taken out. Inch boards will be sufficient for the sides, and nails will be required to hold them.

For 20 tons of ice build the house 12 feet square. By utilizing 10 feet square for the ice, a space one foot wide will be left between the ice and walls which should be filled with sawdust, packed as firmly as possible. Cover the ice with sawdust at least one foot deep, and make sure of having ventilation over the ice, otherwise the sawdust may heat, and the ice will waste rapidly.

With plenty of sawdust, good drainage and good ventilation ice may be well preserved in such a building as here described, at a very moderate cost. As dairymen, let us be loyal to our calling, and do all in our power to raise the standard of our dairy products, and to that end PUT IN ICE.

It is of the greatest importance to adopt a definite system of rotation and stick to it.

Thinks a Separate Breed Better

F. R. Malory, Frankford, Ont.

A dual purpose breed of cattle is, in my opinion, an impossibility. It is just as impossible as a general purpose breed of horses. We can admit the individuality of animals, but we cannot conceive of a breed making progress towards two diverse ends. Take any breed, for example, and let two sets of men breed for different purposes, and what is the result? Confusion. But, we must admit, that there are individual animals of the beef breeds which would do credit to any dairy herd. There are also, occasionally, animals of the dairy breeds which are better adapted to laying on flesh than to giving milk. But, are these individuals dual pur-

pose? Let them rather be called "out-laws."

The breeders of dairy cattle do not wish to produce animals of a tendency to store a large amount of flesh. The Galloway, Devon and Polled Angus breeders do not desire a cow to give a large quantity of milk. But the Shorthorn men seem to be divided in opinion. They believe that the Shorthorn has no peer as a breed for the production of beef. Let that be conceded. But the market for meat, and the high price of feed, has made the fattening of steers less profitable than formerly. Consequently, with the prices of dairy products soaring, we hear more about the dual purpose and the dairy Shorthorn. But it is hard to cater to two diverse

markets. The dealers, or so-called breeders of Shorthorns are procuring good financial returns from importing, breeding, and selling, stock for breeding purposes. But the feeders, or the men who are making meat out of their farm produce, are not satisfied, consequently the agitation for something that will give more milk.

The chief claim of the dual purpose men is, that cows can be produced that will feed their calves, and give surplus milk enough to make a profitable dairy business. This, however, would seem like a dangerous experiment, because the production of milk might be carried too far, and great injury done to the meat producing qualities of the breed. There would be no rudder on the ship. The tendency to develop the breed would be influenced by the market. Which ever product was selling at the most profit, beef or milk, would influence a great many breeders, consequently great fluctuations in the popular type would take place, and, possibly, in the scramble for dual purposes, the present high standard of excellence for meat production would be impaired.

Would it not be more satisfactory to go one step further, and say dairy Shorthorn, rather than dual purpose? It would save confusion, and be more true of the desired type. Or, perhaps, a better suggestion, from a flesh producing point of view, would be to form an entirely distinct breed of milking Shorthorns, with a herd book of its own. The dairy Shorthorn men could then make their cattle eligible to this herd book by a production test, and set a higher standard than any of the dairy breeds now have acquired.

It may be that the Shorthorn men in discussing the milking qualities of the breeds, are promoting their own interests, considering the state of the market. But that they mean or desire to leave the present high standard in search of a dual purpose myth, will not be believed. They know now that by breeding along certain lines that the production will

be consistently good, but when they leave those lines, to attempt an entirely different object, the result would be chaos.

More than Good Looks Were Needed

D. Robertson, Hutton Co., Ont.

Cow testing is one of the most important questions affecting dairy farmers. A man may be a good feeder, may study carefully his cows and be well posted in the care and breeding of his herd, but unless he keeps an individual record of each cow and uses the Babcock test as well, he is not at his best.

We have been using the scales and testing our herd for three or four years. Previous to this, we were not raising any calves but buying our cows as needed. That is, we raised no good cows as appearances go. We soon discovered, however, that something more than "good looks" was needed in the matter of raising cows. We had scales placed in a convenient place near our separator room, and on the way to this room with each cow's milk, the milk was weighed and makes record of weight on sheet and at once leaves the milk in the room where it is entirely shut off from the stable. The record soon told us that the best looking cows, even the cow with the ideal dairy type, was not, in every case, the best paying cow. We were convinced that we must raise our grade up our herd, we must raise our own cows, so we discontinued buying cows and for the past three years have been raising the better cows from our best producers. We were able, also, at the end of each year, to take stock intelligently and to value our cows at their proper worth and knew exactly what the cows told us of.

The record keeping is a great incentive to the milkers and feeders. The milker will do his best to keep up the flow of milk and thereby doing better and cleaner milking. The feeder will watch the effect of the different feeds and the manner of feeding and watering as well. Being able to see at once how any rough treatment or exposure to cold or draughts will lessen the flow of milk, while kindness and good care will increase it. The time taken in weighing the milk is fully compensated for by the extra attention given to the herd by the attendants.

Again, the keeping of records will tell you the best time of the year for the cows to freshen. We have found that our cows that come in during the fall or early winter will, during the year, give more milk than if they come in at any other season. We have not yet been able to complete a system for keeping an accurate account of the cost of production. This is important, however, and until the attendants can tell exactly the cost of producing the milk, he has not solved the whole question.

Every man who keeps cows should weigh and test the milk of his herd. If he cannot do this, let him join one of the many cow testing associations which are formed or are being formed throughout the Dominion by the Dominion Department of Agriculture.

How to Produce Dairy Cows

"The necessity for good dairy cows and how to produce them" was the subject of an interesting address delivered by Prof. W. B. Richards of the North Dakota Agricultural College at the recent Dairyman's Convention at Winnipeg, Manitoba, he said, was passing through the same experience as other new provinces and states had done. The dairy cow was most valuable in converting feed into profit. The lack of success in dairying was due largely to the lack of good cows.

Good milkers could be obtained only with great difficulty. If a poor producer is fed, the cost of produc-

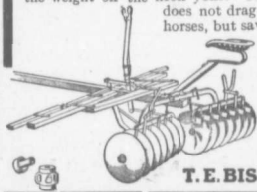
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When we say that the "Bissell" Disc Harrow is twice as good an investment, we mean just that.

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SECURE A FARM

In the Canadian West

The opportunity of obtaining a first class quarter, half, or whole section in the FAMOUS BATTLEFORD DISTRICT on exceptionally easy terms, is now presented for your consideration.

Thousands of acres of the very best agricultural land, suitable for straight wheat growing or mixed farming, with an abundance of wood for fuel, fencing and small buildings, can be secured on payment of a small cash payment, as in evidence of good faith. You then go onto this land with your stock and implements, and proceed to cultivate it. It is only necessary that you break THIRTY-FIVE acres of the land each year until you have it all broken. The land will then pay for itself. Your Contract will call for you to deliver to the nearest Elevator one-half your crop, the other half will pay your expenses, so you are really buying on the very easiest plan imaginable. These farms will yield you the Very Best Crops of the Very Best Acres, and are located in various points of the Battleford District, in close proximity to new towns and schools.

Better your present conditions by getting a line on one of these places.

Write at once for map showing locations of these different farms. There are only about Two Hundred of these locations available at present, so that it is advisable for you to get a selection. : : : : : Correspond at once.

E. H. WHITE - - - **Battleford, Sask.**
Farm Lands for the Settlers on the Easy Crop Payment Plan

tion is run up much higher and the labor is just as great as where a good one is fed.

Pure bred sires of some dairy breed should be chosen. The calf will acquire the characteristics of the sire. A sire of the same breed should be used a second time as the good results will be spoiled if the blood is mixed. If they are crossed for two or three generations, they will be almost as good as pure bred. The process of culling should be started at once by means of the scales and the Babcock test. An average production of 300 or 350 lbs. of butter a year should be taken as the standard for the herd.

Rotation of Crops

The reasons for adopting some regular crop rotation on every farm; are numerous, and important. A proper crop rotation helps in maintaining soil fertility, in re-rotating impoverished soils, in the destruction of insects, and weed pests, and in the more economical distribution of labor throughout the year, thus increasing the profits.

A proper system of rotation is essential to continued success in farming, and yet there are more farmers today who are farming without any regular crop rotation, than are farming with one. There is not a farm, however, that would not be benefited by some system of rotation.

The rotation to be adopted on different farms will vary with the nature of the soil, the kind of farming followed, the markets, and other considerations. It is impossible, therefore, to lay down any one system, which every farmer could adopt, and carry out successfully. At the recent dairymen's conventions, Mr. J. H. Grisdale, of the Central Experimental Farm, Ottawa, gave a system of rotation well adapted for dairy farming. This has appeared in recent issues of The Canadian Dairyman and Farming World.

Where a farm is so situated that manure cannot be applied regularly, a three year rotation of grain, clover, hay, pasture, in succession, would work well. A three year rotation, corn and roots, grain and clover hay, is well suited for a farm, where it is desired to keep a large number of cattle, and where there is more or

less broken land to serve as pasture. For the average farmer, who is engaged in general farming, a four year rotation, consisting of corn and roots, potatoes or peas, the first year; grain the second year, followed by clover, hay, and pasture, the next two years, is well suited.

A five year rotation—grain, with 10 pounds of clover seed to plow down for fertilizer; corn, roots, potatoes, or peas, grain; clover hay, hay or pasture, sown in succession, may be followed with some advantage, where there is a moist climate. Where climatic conditions permit of a good growth after the corn crop is harvested, clover is very profitable to plow down as a fertilizer. Another five year rotation—Grain; clover, hay or pasture; corn, potatoes, roots or peas; grain; clover, hay or pasture, is perhaps better adapted for the average farmer anxious to quickly put his farm in good heart, and keep it in that condition.

In the recent dairy farms competition, held in York County, a number of the competitors lost points, because the judges found that they did not have any system of crop rotation. In other words, they were not maintaining the fertility of their soil. Farm this year, as though you were going to enter a good rotation. Adopt some system of crop rotation.

Cow Paths That Lead Far Apart

Mr. W. F. Stephen, associate editor of The Canadian Dairyman and Farming World, exhibited a chart at the recent dairymen's convention at Huntington, Que., which he called "Cow Paths that lead far apart." The average production of the cows of Canada is 3,000 lbs. of milk, and 115 lbs. butter a year. This, at 22 cents a pound, gives \$25.30. Estimating the cost of feed at \$25, it leaves a loss of 70 cents a cow. He cited a case in his locality where in 1905 a herd of 28 cows averaged over 7,000 lbs. of milk, and 217.5 lbs. of butter, which at 22 cents a pound, gave \$70.75. Deducting cost of feed for the year, \$38.00, a cow gave a profit of \$32.75 a cow. The best cow in the herd gave 8,044 lbs. of milk and 427 lbs. of butter, worth \$93.94, while the poorest gave 4,615 lbs. of milk, yield-

ing 248 lbs. butter, having a value of \$94.50. It is needless to say that the owner of this herd had paid great attention to breeding Scotch animals from high producing families. He also paid great attention to the feeding of his herd, and when they did not come up to the standard they were sent to the butcher. The speaker emphasized the value of milk records to the dairymen. They took so little time, and proved of great value in determining the unprofitable cows. He considered the spring balance scale and Babcock test a necessity in his stable, and would discard other things before he would let these go.

Alfalfa; Food and Fertilizer.

Throughout the Dominion, Alfalfa is now recognized as the most profitable crop the dairymen-farmer can grow. No other plant can equal it as a flesh-forming and "Milk-Producing" food. Animals pastured on alfalfa show a rapid gain in condition, especially milch cows and hogs. After the first season it will yield three heavy crops each season for many years, and the use of a food proven by analysis to bear nearly equal to bran in nutriment.

Alfalfa can be grown in any part of Canada where red clover will grow. An expert authority advocates that the seed be sown only after the surface soil has become warmed, generally speaking, about the first of June, as cold and damp kills off the germination. Alfalfa will require no cultivation for years excepting a coat of farm manure every winter to make up for the vegetable matter that has been taken off with the crop.

But it is as a fertilizer that Alfalfa is so remarkable and valuable. It extracts immense quantities of nitrogen from the air, and thus furnishes the soil in a natural way with large quantities of the richest fertilizer. The roots of Alfalfa penetrate deeply into the subsoil bringing to the surface rich mineral food that could never be reached by any other plant. Its deep rooting habit opens up the subsoil, allowing free access to air and water which sweeten and renovate the land.

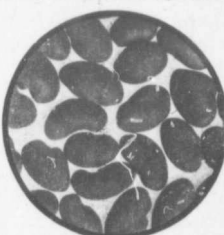
Alfalfa is certainly destined to revolutionize farming in this country. Its food values, abundant yielding properties, and rare fertilizing action render it the most valuable plant known to Agricultural Science.

Judging Dairy Cattle

"The main feature in judging dairy cattle from the farmer's standpoint is that the dairy cow should represent a perfectly working machine that will convert cheap roughage into high class milk products. She is a creature of habit and takes only a certain type which has been established on certain clearly defined lines to the satisfaction of all stockmen."

This opinion of the dairy cow from the standpoint of the farmer was expressed by Prof. W. J. Rutherford of the M. A. C. at the recent Manitoba Dairymen's Convention. Continuing on this question of judging dairy cattle, he said that hereditarily, the dairy cow might be all right, but in time, she would become completely spoiled by the ignorance or neglect of the dairyman. She must have a large digestive organ, a large ruminating capacity so that she might "deliver the goods" in the shape of milk, butter and cream. It is not the amount to many times the weight.

In securing a cow, it was necessary that every cow should be taken to find out whether her ancestry carried a record that left no doubt as to purity and ability to do the work expected. Unless her dam and grand dams were good milk producers, and unless her sire was without reproach, it was not to be expected that she would become a profitable boarder.



Sample of good, pure Alfalfa Seed, greatly magnified. Contrast this with the "cheap" seed shown in picture below

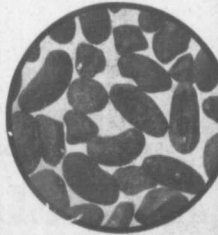
GUARANTEED ALFALFA SEED

A crop of Alfalfa is too valuable a catch to take chances on. Don't throw away hundreds of dollars in trying to save a few cents on the cost of seed. Many failures are owing to impure "cheap" seeds; when pure seeds are sown, success is practically sure.

Every Bushel of Alfalfa Seed sent out by us is Guaranteed to stand the Strictest Government Test for Purity

Question your dealer; if the seed that he has is not "RENNIE'S" don't take any risk but send your order direct to us. Our price, Exchange Warehouse Toronto, is \$23 per 100 lbs.

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Sample of "cheap" impure Alfalfa seed, greatly magnified

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SEED OATS

NEW SCOT'TISH CHEIF—A new variety from Scotland, which has met with unequalled praise from all who have seen it. After being well tested here for 4 years we recommend it with confidence. It is an early variety and produces an excellent straw, which stands up splendidly. It is a heavy milker and produces a heavy yield, 80 bushels abundantly. 80c bushel.

NEW TARTAR KING—A highly recommended variety, grain plump, heavy, white; straw strong and luscious; a heavy yielder, 80c bushel.

We also offer the following standard varieties:—

BANNER, SIBERIAN, AUSTRALIAN, GIANT SWEDISH, LEGOWO, SENSATION, SILVER MINE, 20th CENTURY, and BLACK TARTAR KING. 80c bushel.

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Cotton Bags 25c each.

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HORTICULTURE

Niagara Fruit Growers' Meet

The Niagara Peninsula Fruit Growers' Association, with which was amalgamated recently the Southern Ontario Fruit Growers' Association, held a series of meetings last week at Grimsby and St. Catharines. The value of uniting the strength and forces of the two organizations, was evidenced by the large attendance at the meetings, the harmony and goodwill that prevailed, and the predictions of future successes that emanated from the speakers, and those that took part in the discussions.

The association was fortunate in securing a number of practical and able speakers for the meetings. Mr. J. H. Hale, of South Glastonbury, Conn., who owns and operates immense orchards in that state, and in Georgia, and who is known as the "peach king" of the United States, delivered addresses on a number of topics, and gave valuable advice to the growers of tender fruits. In his own peculiar, happy, forceful style, he captivated the audience, and made many friends. Mr. W. G. Farnsworth, Waterville, Ohio, was equally practical and interesting in his talks on orchard management, and the culture of small

fruits. Mr. W. T. Macoun, of the Central Experimental Farm, Ottawa, and Prof. H. L. Hutt, of the Ontario Agricultural College, Guelph, are well known to the fruit growers of the district, and imparted much valuable information in the addresses that they delivered.

The sessions were presided over by the president, Mr. W. H. Bunting, of St. Catharines. In a few opening remarks he congratulated the growers on being united as a body from Hamilton to the Niagara River. By united effort the association would be in a position to deal with questions that are beyond the powers of the individual. Mr. Bunting referred to the rapid strides that fruit growing is making, and pointed out the significant fact that, while much progress already has been made, the industry now is entering upon an era of prosperity that has not yet been paralleled.

MANAGEMENT OF SOILS

At one of the meetings in Grimsby, Mr. Farnsworth dealt with the management of soils. The address contained valuable information, for the general farmer, as well as the orchardist. Quantity and quality of fruits depends largely on an abundance of moisture in the soil," said Mr. Farnsworth. The various forms of moisture in the soil, and the conditions that control its conservation, were mentioned. To receive large

quantities of moisture in the form of rain and snow, the soil should be made open and porous. It must be drained well to get rid of surface and surplus moisture. This should be done because plants require warmth and air, as well as moisture. An excess of moisture excludes warmth and air. Moisture has two main purposes in the soil, as it affects plant growth; namely, it acts as a carrier of plant food, and aids in breaking down unavailable plant materials.

Plowing is a more important operation in soil management than most farmers think. Moisture exists in one form as a film around soil particles. Plowing breaks up the large particles, and increases the surfaces that are exposed for attracting moisture. The soil should be deeply plowed, if cold sub-soil is not too near the surface.

A potent factor in holding moisture in the soil is vegetable matter or humus. For this reason plenty of vegetable matter should be plowed in, in the form of green crops. Cover crops should be grown in orchards. They should be plowed under as early in spring as possible to prevent loss of moisture through transpiration and assimilation by the crops should it open to grow. On gravelly and sandy soil, vegetable matter will fill the open spaces that occur between the particles in such soils; in heavy soils, it improves the texture by making them more open.

Mr. Farnsworth said also that good tillage plays an important part in controlling moisture. Rolling should be practised to compact the soil, so that water will rise easily by capillary attraction. A light harrow attached behind the roller will prevent a shallow surface mulch to prevent the escape of moisture to the air. Tillage also prevents loss of moisture through appropriation and transpiration by weeds. Tillage should be thorough and incessant. Other addresses of Mr. Farnsworth, and those of Messrs. Hale, Macoun and Hutt, will be found in future issues.

Spraying for Scale

Spraying for San Jose Scale, was discussed by Mr. W. G. Farnsworth, of Waterville, Ohio, Mr. J. H. Hale, of South Glastonbury, Conn., and others, at the convention of the Niagara Peninsula Fruit Growers' Association, held last week. Mr. Farnsworth re-

ferred to what is being done in Ohio. He said that thousands of trees in that state have been ruined by the use of crude petroleum. The best material for combatting scale is the lime-sulphur wash. This mixture not only kills the scale, but it also destroys all fungi on the trees, which, in itself will pay for the expense of application. Best results have been secured by not using salt in the mixture, as was first advised.

When speaking of the seriousness of the pest, Mr. Farnsworth pointed out that scale produces three or four broods in a season, 300 to 600 insects in a brood. A little calculation will show the immense increase in numbers that occurs in a very short time.

The tank used for boiling by Mr. Farnsworth is elevated eight feet. A working pressure of about 100 pounds is used when spraying. Spraying should be practised every year to see roughly whether scale is present or not. The mixture invigorates the tree. Mr. Farnsworth stated his opinion to be that only lime and sulphur can be used with safety on peach trees. Boiling should be done properly. When boiled to the green stage the mixture is injured. The coffee color is proper.

Mr. Hale said that while oils are valuable for killing scale, the lime-sulphur wash is the better for all purposes. It acts both as a fungicide and as an insecticide. He has had best results by using oil one year, and lime-sulphur the next. In some experiments conducted by Mr. Hale with home made miscible oils excellent results have been secured at comparatively small cost.

A New Out.—Last season I grew a six acre field of your Lathan White Out, and I was greatly pleased with the result. They grew a stiff white straw of medium length, and were the only out on the place that did not suffer from the blight. The crop was long, even and well filled. The crop was cut on August 8th. Several of the neighbors will be looking to you for seed this spring.

C. A. M. Morrison,
The Dentonia Park Farm,
Coleman, Ont.

The Lathan White Out Seed can be secured at Mr. Geo. Keith's seed store, Toronto. See ad. on back cover.

Wallace Power Sprayers

AIR PRESSURE

14 styles furnish their own power without a cent of cost. Will thoroughly spray larger trees.



We have hundreds of them out, and have never yet been asked to accept returns of one. Large number now used in Canada. This out shows our "New Model Standard," which is the most popular sprayer in America. Orders for them are coming in lively now; get yours on our list early—NOW. Send for proof that one of them made for a couple of Canadian apple growers—14 times its own cost in one season—a post card will bring.

We also make 7 styles of Gasoline Engine outfits, which are the very best and most economical that money can buy. We guarantee absolutely every outfit we furnish. You run no risk whatever when you buy a Wallace Power Sprayer of any style. Get one and make money out of what you now waste.

We also supply Special Orchard and Farm Cultivators and Disc Harrows, and Air Pressure Water-works Systems for private use in country, town or city, as well as for town or city corporations.

W. H. BRAND, Jordan Station, Ont.

Our Motto:

"QUALITY FIRST"

Don't let the high price of Seeds influence you—Get the best. It pays; never economize in seeds at the expense of quality.

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"GOVERNMENT STANDARD"
CLVER and TIMOTHY

Are Specially Selected for Purity, and all Re-cleaned.

OUR HIGHEST QUALITY BRANDS ARE

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We offer lower priced "Brands" Red Clover, "Tiger," "Wolf" and "Lynx," Alsike Clover, "Eagle," "Hawk" and "Stork," Timothy, "Martin," "Beaver," "Seal" and "Ermine." All our Seeds comply with the requirements of the Seed Act, and are unsurpassed for High Purity and Germination, and are sent out in sealed bags.

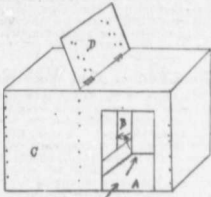
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POULTRY YARD

A Cure for Egg-eating Hens

A first-rate plan, and one that has been proven a success in curing hens of the bad habit of eating their eggs, is given here. It is simple, and easy to prepare, and is a sure preventive. Secure a box, in which there are no open cracks between boards, preferably one of matched lumber, such as can be obtained at a trygoods store. The size should be about 24 x 36 inches, and 18 inches high. Take the top off, and in one end of the 36 inch side, cut a doorway, as shown in illustration, about 10 x 12.



A.—Doorway with box. B.—Door in partition leading into dark half of box. C.—Position of nest. D.—Door to lift and take out eggs. Next put a partition across the box, dividing it into two halves about equal, and in the partition leave a doorway, in the half of the partition farthest from the outer door. Again divide the minor half of the box in half, but only with a six inch board across the bottom, to keep the nest in place, and put the nest material in

the part farthest from the inner door, and leave the rest of the box without any.

Now, nail on a tight cover, except enough for a door, above the nest, for convenience in taking out eggs, taking care to make the inner compartment as dark as possible. When complete, the hen goes in through the outer door in the partition, and must then turn to the left to reach the nest. She will gladly go to such a nest, but after laying, finds it too dark to see the egg, and walks out, leaving the egg for you, as she ought.

Watch the Drafts

What is the cause of rattling sound accompanying a sort of cough or sneeze that is heard at night when the fowls are at roost? The chickens are healthy looking, and are laying some every day. There does not seem to be anything wrong, but I want to guard against any disease getting a start in my flock? What is the best make of incubator for a beginner to get? What size machine would it require for a farmer's use, where about 300 chickens are raised each year? Would a brooder be necessary too, for best results?—G. A., Bruce County.

There is very likely a slight draft near the roosts, and the chickens have caught cold. As they are in good health, they will perhaps throw off the cold before it goes farther, if

the cause is discovered and removed, but it would be well to give them for a few days, some Hess Panacea in their food, according to the directions given on the package. We cannot, in justice to our advertisers, recommend any special make of incubator. You can read the advertisements in our columns, and write the manufacturers, deciding, after you read their literature, which machine you want to try. We believe any incubator advertised in this journal is reliable, and must leave the choice to yourself. A 50-cup machine would be amply large. It is a good size to use while experimenting in the running of an incubator, as a spoiled hatch does not entail the loss of so many eggs. A brooder is a necessity, when the eggs are hatched with an incubator, as the work is usually done too early to give the chicks the care they need without one. Some handy men make their own brooders, but the manufactured brooder is so low in price now, that it scarcely pays to go to the trouble of making one at home, and it is no experiment with the manufactured one.

Incubator Experience.—I have had good results with my incubator and hatched 109 healthy chicks out of a possible 124. The chicks were as

strong and healthy as any hatched by the hen.—Thos. H. Goss, Ashcroft, B. C.

CHAS. A. CYPHERS' Model Incubators and Brooders

On my Model Poultry Farm I now have poultry numbering 80,000 hatched and brooded in my famous Model Incubators and Brooders. Buy your incubators and brooders of a man who knows nothing (or next to nothing) about hatching and raising poultry is running a useless risk. Don't do it.



I not only sell you a Model incubator or Brooder, but I add to them the valuable experience of years as shown in their construction. Model Incubators show excellent hatches, hatch every hatchable egg. The Model Brooder grow sturdy chicks.

Send your order in to-day, and get in line with the profit getters. Free catalogue for everyone.

THE MODEL INCUBATOR CO.
196-200 River Street TORONTO, ONT.

I Will Equip You To Raise Poultry Without Your Putting Up One Cent

Tell me who you are, and I will make you the squarest incubator-and-brooder proposition you ever heard in your life.

I will ship you a Peerless Incubator, and a Peerless Brooder (or either—but you need both), and give you a ten years' GUARANTEE in writing that they will work right.

My Peerless Incubator, and its running-mate the Peerless Brooder, will give you the right start in the poultry business. Nothing else will.

Nothing else will, because no other incubator or brooder is heated right, ventilated right and sold right. No other incubator, no other brooder, is GUARANTEED as I guarantee the Peerless.

I take all the guess-work, all the worry, out of poultry-raising with the Peerless outfit.

I will give you two years' time to pay for the outfit if you want me to.

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J. E. BRETHOUR, Burford, Ont.

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Brood Sows and Their Care

David Barr, Jr., Renfrew Co., Ont.

My sows run in the barnyard, whether the weather is fine or stormy. There is a mow in the barn with plenty of cut straw, to which they have access at all times, but they are never shut in. The feed consists of turnips, mangel and sugar beets, thrown out whole on the hard barnyard, twice a day, all my sows set up clean, besides about 2 lbs. whole peas a day. I have had my sows on this ration for a number of winters, and have had the very best results. I feed this up to a week off farrowing, and often up to farrowing. I try to house the sows a week before farrowing, but have just as good results had they not. I believe that sows should have soft light feed before farrowing. A loosening of the bowels tends to prevent fever.

I have started a new ration for my sows this week, corn, ensilage, pulped turnips, oat and barley meal mixed together. We mix enough to feed three or four days, and let it lie in a pile. This is fed in a long trough, twice daily, morning and evening. We try to watch the sow at farrowing so as to have the litters, but very often have a good result from sows that are left to themselves.

A NEW EXPERIENCE

Exercise is the main point in raising pigs. Last year I had some experience with pigs I never had before I had a bunch of young sows running with the old ones. They got the small end of the feed and failed considerably. I have shut them up and fed cooked turnips, and oat and barley meal for over a month before farrowing. The result was a lot of big fat, squealing pigs, with half a coat of hair. Though all were living at first, they died after two or three days' warming, and I was caring for a young sow, a little older than these was left out till farrowing time, when she was shut up, in thin condition. She had eleven big strong pigs. She raised all of them, and I never had to put a hand on them. They were farrowed about the same time as the others, about the end of March.

Costly Cows and Testing

S. H. Reynolds, Bothwell.

If costly cows are put in the dairy barn, a strict record should be kept of each cow. Each cow should be tested at least for seven consecutive days each month during the milking season. I have not been regular in my testing work. However, from the work I have done, I have been able to judge the cows and those that do not make a profit are dried up and fattened for beef. Individuals of dairy breeds should be tested daily for one season as their value cannot be realized in any other way. A good grade, however, if she does not come up to the standard in milk can be fed well and run off at any time, without material loss.

Pointers on Feeding.

Some timely advice on the feeding of dairy cattle was given by Mr. J. H. Grisdale, of Ottawa, at the recent Dairyman's Convention at Cowansville, Que. Mr. Grisdale insisted on lots of fresh air in stables and plenty of light. Feeding grain and fodder to cattle shut up in badly ventilated stables was wasting that grain and fodder. The cattle did not benefit by it, as they would if kept in fresh air.

The first requirement of good feeding is ample feeding. During the winter, an animal should have its digestive organs full, even if the food was not so very rich. They thrive better on plenty of cheaper food. It had been shown that straw cut up and moistened and sprinkled with

barley, corn or oatmeal was better for cattle than a large quantity of grain. Make the feed succulent. That was the secret of successful feeding. Fix the feed up, so that the animal liked it and be then would thrive on it.

Feeding cattle in winter twice a day was as good as four or five times, as long as you gave them what they would eat on those two feedings.

Summer feeding was strongly advocated as a means of increasing the flow of milk and the old-fashioned idea of simply leaving it to the pasture to produce milk whereas the farmer saved the produce of his meadows for the winter when his cattle produced nothing was severely ridiculed.

The silo system saved half the area of land in cultivation. Sow corn in rows 3½ feet apart, uniformly so that the farmer may pass through both ways with horse-hoe or cultivator and thus save hand-work, which was so expensive.

Grain Rations That Work Well

The question of feeding dairy cattle under North-west conditions was dealt with by Prof. Richards of the North Dakota Agricultural College at the recent Dairyman's Convention in Winnipeg. Prof. Richards presented an address with a talk on the need for better barns or of improving the old ones, laying stress on the need for better ventilation. He claimed that if barns were more conveniently modelled, there would be less difficulty in getting men to milk. He advocated dairying all the year round and recommended having the cows freshen in late fall or early winter. In that case, the cows would give more milk during the year, the dairy products would sell for higher prices in the winter and better beef and dairy calves could be raised.

RATION RECOMMENDED

In feeding, Prof. Richards recommended the giving of a small grain ration all the year round. The rations that he had found worked well at the experimental station, when cows were on full winter feed, were as follows: First—30 lbs. of ensilage, 10 lbs. prairie hay, 5 lbs. brays, 2 lbs. shorts; second—20 lbs. millet or rye grass, 10 lbs. roots, 6 lbs. barley or macaroni wheat, 4 lbs. bran. Cows wintered in their power to assimilate grain rations, and for this reason careful test should be made. Above all things, cows should be watered regularly with a good supply of clean, pure water, and they should be milked just as regularly as they are fed and watered.

In answer to a question on ensilage Prof. Richards advised the growing of more fodder corn in Manitoba. In the discussion following this matter, Ex-Frs. E. Farnow related his experience with corn raised and fed strongly in favor of the variety known as Longfellow, because of the abundant yield and the fact that the cob grew well up from the roots, thus facilitating cutting. He said that the dairyman of Manitoba had no occasion to feel discouraged. Dairying had mixed farms in the west, and slowly in wheat countries, but they had to come, and for Manitoba they were coming now.

Scarcity of Horses

A despatch from London, England, states that the United Service Institution recently discussed the serious shortage in the horse supply from the military standpoint. General Sir E. Hutton spoke of the deterioration noticeable in Canada and Austria, and said that he had done all in his power to draw attention to the importance of developing the class of horse most required. In the case of both countries, a horse-purser was appointed, said, should be formed by the War Office.

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A TALK TO THE "BREEDER" OF CROPS

To get the biggest possible crops with the least financial outlay for labor and seed should be the aim of every farmer. You ask how can this best be done. The answer is by seed selection and testing the germinating power of seed before sowing same. Full information as to how to do this through the adoption of methods that are at the command of every farmer are given elsewhere in this issue.

The men who select their seed grain and sow only such as possesses good vitality and germinating power as determined by the simple methods of seed testing described elsewhere in this issue are the men who are getting the most out of their farms to-day. Many of these men, by utilizing some of their spare time during the winter months in the testing of seeds are able to produce fifty, sixty or even more bushels of grain on

an acre, whereas the "hit or miss" farmer would produce but thirty bushels or perhaps less on the same acre. No more work is required to get the big crop. Probably, considerably less seed is sown. The vitality and productive power of the seed is known, however. Practically, every seed produces a plant. In the other case the productive power of the seed is unknown. Much of it is of a low vitality, so low in fact that it is unable to nourish a plant until it is large enough to become divorced from its embryo. Consequently it passes to the "great majority," many do, and the ultimate crop is a disappointment.

With all the means at the disposal of farmers to-day there is no occasion for crop failures because of poor seed. At the Ontario Agricultural College a great work is being done in the way of crop improvement. Crop yields, the reports of which some years ago would have been considered veritable fairy tales, are being produced solely through selection and breeding. This is being conducted for the benefit of farmers. All have an equal chance to profit by it. Not only that, but results obtained should induce farmers to select on their own account.

Mr. R. J. Littlejohn, Leeds Co., writes us telling of what seed selections has done for him. He says: "I have been able to get greater crops with less seed through seed selection. I have been selecting my seed corn mostly before cutting by going through the corn while standing and selecting the best ears. Also I select the seed potatoes while digging and by so doing I have been able to increase my crop considerably. As for seed grain I select my seed from the best of my crops, then taking great care in cleaning by blowing out all light grain and screening out all small seeds and grains."

Mr. Joshua Knight, of Hastings Co., Ont., has been taking advantage of the seed experiments from the Ontario Agricultural College for twenty years and has greatly improved his crops thereby. He claims that the work is pleasant as well as profitable.

Many more letters have been received from farmers who have practiced seed selection and testing and taken advantage of the seed sent out by the College for experimenting purposes, and they secured considerably more out of their farms in consequence. This extra crop production more than compensates for the extra labor entailed.

Fellow farmers! Are you satisfied to continue conducting your farming operations on a lottery basis? That is practically what it amounts to when you sow seed that has not been tested or is not guaranteed. Not until harvesting time do you know what you will get. The cry of the times is to test your cows and strive to improve them by breeding and selection. It is equally important to follow similar lines in producing farm crops. Try buying good seed and testing this year. Then take note of your crop and compare it with that of former years. That is the best way to become convinced.

BUY ONLY GOOD SEED

These are several things the buyer of seeds should observe. These may be summarized as follows: Buy only from reliable seedsmen; buy the best grade of seed; insist upon a statement of the percentage of seed which will germinate; test the seed yourself.

Do not expect, however, to get first-class seed at the price of poor stuff. The best and highest priced is none too good to put into your land after you have expended days of labor in preparing the seed bed. Poor and cheap grades of seed are really more costly than the best and highest priced. Some tests have shown that unclean seed especially in clovers and grasses may contain 20,000,000 or more weed seeds a bushel. Then poor seed may contain such a small percentage of germinable seed that a thin stand of crops is obtained. It may be necessary to buy 5 or 6 bushels of low grade seed in order to secure as much germinable seed as is contained in one bushel of good seed. You will, therefore, save time, money and labor by buying the best quality of seed and at the same time avoid seeding your farm to all kinds of weeds.

REGULATING THE AUTOMOBILE

There are five bills before the Ontario Legislature having for their object the regulation of automobile traffic on country roads. This shows that the members of the Legislature are alive to the great need for effective legislation.

Of the five bills, two provide for keeping automobiles off the roads on certain days of the week and certain hours of the day, the third compels machines to stop when a funeral is approaching or to turn down a side lane; the fourth impounds machines that are driven too fast; and the fifth imprisons instead of fining a "chauffeur" guilty of breaking the speed limit or of otherwise contravening the regulations.

The first two are hardly workable. To define certain days on which no motoring would be allowed, would work unnecessary hardship upon the motorist and at the same time would not give the farmer who uses the roads more or less every day of the week the protection he requires. In the opinion of some it would be better to define certain roads through the country on which motoring would be allowed. These roads, they say, need not be numerous nor the best equipped roads, thus leaving a large number of public highways free from any motoring of any kind. The farmer, with horses trained to auto-mobiling could travel on these prescribed roads whenever he wished.

Of the bills outlined, the one imposing imprisonment without the option of a fine upon the "chauffeur" who breaks the law is worthy of some consideration. It would have a salutary effect in keeping in check the fellow, who deliberately and in mere bravado, puts all rules and regulations at defiance, and races with breakneck speed through the country

without any regard for life or property. He is the one who is doing the harm and bringing automobiling in to disrepute in rural sections. Thirty or sixty days in "durance vile" would dampen his ardor somewhat and give him time for a little sober thinking upon the rights of others.

The automobile has come to stay. It is a factor in the life of to-day and is destined to become a greater factor in the future. Any legislation looking to its control must keep this in view. The owner of the automobile, however, must not be allowed to trample on the rights of others. The roads of this country were built largely for the people in the rural sections, and are maintained mainly by their efforts. They have, therefore, the first claim upon them. This the motorist must recognize. He should be the first in upholding and enforcing reasonable and effective legislation that will ensure to the farmer, without endangering his life or property, the full use of country roads when and where he wishes.

The Ontario government has been doing good work in enforcing the laws regulating the liquor traffic. Instead of relying upon local officials to see that the law was carried out, agents have been deputed to visit all parts of the province to see that the law was observed. Would it not be a good move were the present laws relating to the speed of automobiles enforced in the same way? Were a few provincial officers sent out, in high speed automobiles of their own, with instructions to watch some of the most travelled roads they would soon be able to capture some of the worst offenders. The trouble now is that when an automobile has been the cause of an accident its owner rushes off at such a high rate of speed his identity cannot be detected. Some means of running down those men, who exceed the speed limit, is required. Once a few arrests and prosecutions have been made and duly advertised through the press, the automobile nuisance will soon disappear.

In appointing a Liberal to act on the Board of Control of the Niagara District Experiment Station, to represent the vegetable interests, Hon. Mr. Monteith has offended some members of his party. He has, however, shown himself to be above party considerations in the management of his department and thus his stand cannot be too highly commended. Mr. J. L. Hilborne, who has received the appointment from Hon. Mr. Monteith, is not a member of the Ontario Vegetable Growers' Association. The Association was not consulted in regard to this appointment and, therefore, has reason to feel that it has been overlooked in this matter. Mr. Hilborne is, however, a successful and an extensive grower of a number of different varieties of vegetables, both in the greenhouse and in the open. As soon as he has had a chance to meet the officers of the Vegetable Growers' Association his fitness for the position will be admitted.

Prince Edward Island Dairymen Meet

The Dairymen's Association of Prince Edward Island met in annual convention at Charlottetown, on Tuesday, February 25. The attendance was rather disappointing, but great interest in the sessions was evinced and maintained. President Arthur Simpson, in opening the convention, dealt chiefly with the revival that is becoming apparent in the dairy industry, and the difficulties still to be contended with in the transportation of cheese and butter. One of the causes of complaint is frequent handling and unnecessary delays in getting the cheese to the ocean steamers, resulting, sometimes, in heated cheese and wrecked boxes.

THE SECRETARY'S REPORT

According to the secretary's report, there were 45 cheese factories and one branch factory, in operation during the past season. The business showed a slight increase over last year. The larger factories, that are well located, and have plenty of territory, are increasing their business, while the smaller factories that are placed too close together, are going back. Some of them are likely to go out altogether.

Owing to the price of raw products of the farm, being high the last few years, the development of dairying has been somewhat retarded. Farmers have not been long enough in business to have acquired the courage to feed high-priced grains to dairy cattle. Dairying is on the up grade, however, and though the weak stations will have to go out of business, or amalgamate with one another, still a greatly increasing number of the best farmers are convinced that co-operative dairying is paying them better than any other line of farming, and that it would be a blessing to the province, if through any cause, it should fail.

The quality of cheese during the past season was excellent. The price averaged 11½ cents a pound. Only three prices were given in the cheese classes at the provincial exhibition last year. The secretary advised that diplomates be awarded to all exhibitors, and to all cheese scoring over 94 points, so as to encourage a greater exhibit, both in point of quality and quantity.

The trend of the discussion, aroused through the reading of the secretary's report, was that it was essential that the Prince Edward Island dairymen stand by their industry, and make it a success, as there is nothing else to take its place.

A very instructive and practical address was delivered by Mr. Geo. H. Barr, official referee at Montreal. He touched principally on the development of the industry in the province, the care of milk, etc.

Lieut.-Governor McKinnon spoke strongly of the benefits derived from co-operation in dairying, as well as in other lines of farming. "Give the young man who is going to remain on the farm," said he, "a chance to get an education as well as the man who takes up a profession."

RESOLUTIONS

A resolution was passed favoring the extension of agricultural teaching in the schools, and asking the board of Education to provide a suitable text book on agriculture. In the discussion which followed the introduction of this resolution, the wisdom of directing the teaching in schools, along the lines of agriculture, was generally acknowledged.

Prof. Ross, Secretary of Agriculture, spoke of the advantages of soil and climate possessed by Prince Edward Island, for the production of dairying. He strongly advised the feeding of more grain to dairy cattle, claiming that cattle were not half fed, or they would produce double what they

were doing. Corn was not as sure a crop in Prince Edward Island as in some other places, but they could beat the world in growing roots. Oats, clover and roots were good feeds for dairy cattle. If clover failed, grow oats and peas as a substitute.

Premier Hazzard spoke in optimistic terms of the dairy business. That he indicated was giving a healthy growth, backed up by more dairy knowledge on the part of the man behind the cow, was the trend of an address by Walter Simpson. The business had had its boom, and had suffered a set-back, but would have a steady growth now, as they have had experience to guide them in avoiding mistakes formerly made. What was wanted, he said, was fewer cows, and more milk, consequently, more profit. A good many farmers have learned their lesson already, and the object lessons they are giving others, will have their effect in a strong revival in the dairy business.

OFFICERS FOR 1908

The old board of directors was re-elected. This consisted of the following: President, Arthur Simpson, Bay View; Vice-President, L. MacDonald, East Point; Secretary-Treasurer, John Anderson, Kensington; Directors, Alex. Hamilton, New Perth; J. E. Edwards, North Wiltshire; J. H. Monaghan, Hazelbrook; Rev. J. A. McDonald, Grand River.

Hand Cream Separators and Gathered Cream Separators

Ed. The Dairyman and Farming World—

I have read with much interest in the Feb. 10 issue of your valuable paper, the report of a discussion which took place in Quebec at the Bedford District Dairymen's Association, where Mr. Geo. Barr stated that he deprecated the use of hand cream separators, and that they were likely to cause the Cowanville Section to lose its present high reputation and that Western Ontario butter had lost its good reputation from the use of these machines.

Another Professional Dairyman, at one time, condemned the gathered cream creamery, because he claimed that the quality of butter made in creameries run on the gathered cream plan cannot be made good enough to command the highest price on the English market.

Now, if these gentlemen who occupy such prominent positions in the dairy industry, would inquire into the management of the creameries, where poor flavored butter is made and try and find the cause of the trouble and suggest remedies whereby the flavor of the butter would be improved, the dairyman would be more valuable to the butter industry and serve our creamery managers and patrons more profitably.

To make statements that tend to give an unfavorable impression of the quality of the butter made in Canadian creameries, is unwise. It is injurious to the value and reputation of our creamery butter. It would be more business like to help the creameries where the inferior butter is made, and say nothing in public that would destroy the good reputation of all the butter made in those creameries, thus causing a lower price to be paid to the patrons of all the creameries as they have to suffer the loss.

To make a statement that hand cream separators are the cause of the trouble is as misleading as it is helpful to improve the flavor of the butter.

The chief cause of the butter in some creameries not being as good as it should be, is due to an unwise system of gathering the cream from the farm only twice a week in warm weather, and only once a week in some places in order to reduce or

cut down expenses. The chances are very much against making good, sweet, fresh butter that will keep well, where such a practice is in force. How can butter have a good flavor when made from cream that is kept so long, especially as we know that on some farms the milk room and other conditions for keeping the cream sweet and fresh so long is not favorable? I have seen this foolish "twice a week practice" carried on in large creameries, even in warm weather, in order that the butter be made cheaply.

If our Professional Dairymen would advise managers of creameries to adopt the plan of gathering cream at the farm at least three times a week and have the patrons try to keep the cream sweet, we would hear fewer complaints about the flavor of the butter. A very fine quality of butter can be made, and has been made in creameries, where there has been more care taken to collect the cream often, and to give instructions to the patrons about handling it on the farm until called for. This, I claim, is the real cause of the trouble and complaints made against butter made in some gathered cream creameries.

Any one who has a separator on the farm, knows that cream separators purify the cream and deliver it in the very best condition. The care the cream receives afterwards, however, depends upon the farmer and the creamery management. I blame the creamery management chiefly for the complaints that are being made.

In some districts there is a great rivalry among the creameries to make the butter very cheap for their patrons, regardless of sacrifice in flavor.

We know the quality of butter in our country has been greatly improved since the introduction of hand cream separators into the private dairies and in the creameries as well, where the cream is gathered at least three times a week.

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MONTREAL

Our Professional Dairymen should be more cautious in their statements regarding the quality of butter made in gathered cream creameries. The farmers know their business and they are looking for some profit. I know of no other system of making butter on the co-operative plan that is profitable to the farmers, except on the gathered cream plan. The cost and labor of gathering the cream three times a week is small, compared with hauling the whole milk to the creameries every day. The labor in the creamery is greatly reduced, and the cost of equipment and machinery is reduced as well.

The creamery men should advise their patrons, during the winter months, to store a quantity of ice for summer use, to cool the cream immediately after it is separated on the farm. The warm, fresh cream should not be mixed with the cold cream of former skimmings until after it is cooled. Then they should be mixed together. The cream can be kept covered and set in a cool place where the atmosphere is pure and dry. Damp musty cellars are not fit places in which to keep cream. The patrons should try to keep the cream sweet and not allow it to turn sour and thick before the collector calls for it. If there was more consideration given to the care of the cream at the farm and then have it collected three times a week, we would hear less about bad flavored butter, and no complaints against hand cream separators.

Farmers know well enough that their cream separators extract enough extra butter fat from the milk to pay the cost of manufacturing their butter at the creameries and pay handsome dividend on the cost price of their cream separators as well, besides having the skimmed milk fresh and warm to feed young stock at the proper time.

(Continued on page 14)

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.

Conditions Which Influence the Moisture Content in Butter

Address by L. A. Gibson, Inspector of Creameries at the Manitoba Dairy men's Convention.

The importance of incorporating the proper percentage of water in butter cannot be too strongly emphasized; the success or failure of the cream may depend to a large extent on that one thing. The factors which influence the moisture content, are under the control of the butter maker, the thickness of the cream, the quantity of cream churned at once, churning temperature, the temperature of the wash water, and the amount and character of the working.

A thick cream containing 30 or 40 per cent. fat will give you more moisture than a thin cream containing 20 per cent. fat, other conditions being equal. Butter churned from thick cream has a tendency for the granules to gather in irregular shape. They do not receive as much agitation, consequently, they hold more moisture. If cream is churned at a very high temperature the result is that the butter will come in a very short time. It will incorporate an excessive amount of moisture and casein, which will affect the body and color. An excessive amount of water has a tenden-

cy to make the butts pale and lifeless in color. Butter made from thin cream and churned at a low temperature will gather very slowly, for the following reasons:—(1) The fat globules are distributed in a large volume of milk serum, and the chance of striking one another is less than in thick cream. (2) The low temperature hardens the fat so that the globules do not cohere readily; the surface of the granules become smooth and consequently will not hold as much moisture.

Aim to have your cream contain from 30 to 35 per cent fat, and placed in the churn at a temperature which will churn in granules the size of wheat in 30 minutes. In churning, anything over 45 minutes is lost time, and anything under 30 minutes is not desirable.

A churn two-thirds full of cream will give you a greater over-run than a churn half full. Also you can incorporate more moisture in your butter without injuring the quality from good flavored cream, other things being equal. The more butter is worked the less moisture it will retain; every turn of the worker expels moisture, therefore do not work your butter any more than enough to insure a uniform color.

Cold wash water reduces the percentage of moisture in butter, hence the necessity of closely watching the temperature of the wash water. All butter makers may have noticed that salt will not dissolve as readily when cold wash water has been used, and quite frequently the salt will appear gritty in the butter. Water in butter will take about 12½ per cent of its bulk in salt in a saturated solution; hence the higher percentage of water the more salt can be used.

For the last year and a half, I have carefully studied the moisture problem, and also in studying the scores of butter in the different contests in Wisconsin, Iowa and Minnesota; it would seem that the water content had no bad effect on the quality up to 16 per cent. Our best butts contain anywhere from 12 to 16 per cent.

I believe 14½ per cent is a safe amount to carry, and at the same time turn out the finest quality of butter. I mean to state that at the beginning that the importance of incorporating the proper percentage of moisture cannot be too strongly emphasized. Let me prove it.—Take a creamery turning out 800 lbs. of butter daily. That butter maker incorporating 10 per cent of moisture allowing 3 per cent salt and 1 per cent casein would give an over run of 16. That butter maker would be incorporating 14½ per cent moisture, 4 per cent salt, and casein, which would give an over-run of 22. At the average selling price of butter, 23 cents a pound would mean that the butter maker who is incorporating 10 per cent moisture was losing about \$1.38 on every 100 pounds made, or \$11 daily. Provided that creamery operated for six months with an average of 200 lbs. daily, the company would lose over \$1,700, and the butter would not be as good as the quality of the butter containing 14½ per cent moisture; hence the necessity of closely watching the moisture.

Every butter maker should test every churning for moisture; with the Gray and Irish tests. There is no excuse for the manufacture of an abnormally dry butter; or even a butter with too high a percentage of moisture.

Grading Cream

During the past season, we at Shellmouth have practised grading. The cream was delivered to the creamery by haulers. The cream was collected twice a week on their routes, and once only on the other four. Individual cans are used. The hauler simply brings in the cream—the weighing and sampling is done by the buttermaker. We did not seek to impose an impossible standard. We did not insist that the cream should be sweet, for No. 1 grade. That would be well-nigh impossible. If it was mildly sour, of good flavor, and would run freely through a wire strainer, provided it tested 30 per cent fat, it was No. 1. That is not a severe standard. Any farmer who has a good separator can produce 30 per cent cream, and keep it from three to five days in condition, to grade No. 1, under the test I have mentioned. This instance would give 30 per cent fat for No. 1 grade caused a good deal of criticism, and some dissatisfaction. It is hard on the average farmer to realize the importance of obtaining heavier cream—over 30 per cent—and the benefits accruing to himself thereby. During the past season the proportion of No. 2 grade testing over 30 per cent, was only 3 per cent. We received 36 per cent. No. 1 grade.

If cream grading is to be used as a method of improving the cream receipts, some kind of grade-card is desirable. Such a card should have the patron's name, date and pounds of cream delivered, grade, also the fat test, if the card is mailed. The card might have printed thereon, in separate numbered paragraphs, the common faults of cream, and the remedies to be applied. A space can be left for additional remarks, and attention can be called to any paragraph, which applies to the individual delivery of cream noted upon the grade card. The grade card would form also a receipt for the patron for his delivery of cream. The sooner the patron knows how many pounds of cream he is credited with, and what

his grade and test is, the better will he be satisfied.

These are a few first year experiences in grading cream. It is perhaps too soon to say whether the system is an entire success or not. We may lose a few patrons. If we do, they are knockers, and the creamery is better without them. The result is that the whole country is being urged up against a great deal of helpless (almost hopeless) ignorance, on the part of many patrons. Grading cream is not a new thing, for all the ills that cream is heir to. It is, however, an advance step in an effort to make better butter and more of it. By its use, and by "patient continuance in well-doing," it will have its reward.—Mr. Geo. Matheson, in address to Manitoba dairymen.

Notes From St. Hyacinthe

Forty-two students attended the January short course, which commenced at the St. Hyacinthe Dairy School on January 7, and finished on the 20th. Inspectors' certificates were renewed, and eight inspectors' certificates issued. The issuing of these certificates gives the men securing them the right to travel as instructors, and one hour of the year, after which, if they do their work to the satisfaction of the general inspector, they will be granted their inspectors' certificates. There were 19 diplomas issued to butter or cheese makers, 23 certificates to expert milk testers, and 23 certificates of assiduity.

The men who were successful in getting a permit to travel, each carried away three diplomas, one as a milk tester, (without which the inspector's certificate is never given) and one as a maker of butter or cheese. Some went away with two, while others secured only one, of assiduity.

The February course opened on February 3, and concluded on the 20th. Forty-seven names were enrolled at this course, which were men of at least three years' experience in factory work. There will be only maker's diplomas and milk tester's certificates issued, with, of course, a certificate of assiduity which is given to all who follow the course from beginning to end.—J. A. P.

Hand Cream Separators and Gathred Cream Creameries

Continued from Page 13

There have been sold within the last 10 years in Canada, from 75,000 to 100,000 hand cream separators. Farmers are buying them, and will buy them because they are profitable as well as necessary to save labor on the farm.

The cause of bad flavor in creamery butter is not due to the use of hand cream separators. As I stated before, it is due chiefly to the cream being kept too long after it is separated.

At another Convention, Mr. Barr was given credit with saying that he did not like hand cream separators because of the labor of turning the crank. Ten-year-old children all over the country are turning the cranks of cream separators and running the machines with great satisfaction to their parents. Any one who knows Mr. Barr as well as I do, knows that he is too good-natured a fellow to want to have anything to do with a "crank."—T. C. Rogers, Guelph, Ont.

Advantages of Rural Delivery

"I suppose you go to the city at least once a year," said the summer boarder.

"I need 'twice" replied the old farmer, "but I ain't the patron for onto three years now. Sense we got rural free delivery I kin git bunked just as well by mail, b'gosh."

Think What A Telephone System Would Mean To You And Your Neighbors

It would save your time—save you any amount of inconvenience and trouble, and facilitate business and social intercourse.

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Cheese Department

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

Certificates for Makers

At the meeting of the executive committee of the Eastern Ontario Dairymen's Association held in Toronto recently it was decided to see what can be done towards making it compulsory for cheese and butter makers, to hold certificates before being allowed to take charge of factories. Messrs. John R. Dargavel, M.L.A., the president of the Eastern Ontario Dairymen's Association; G. A. Putnam, of Toronto, Director of Dairy Instruction for Ontario; and G. G. Publow, Chief Dairy Instructor for Eastern Ontario, were appointed a committee to look into the matter. This committee will probably meet soon, at the Dairy School, Kingston, to arrange the basis upon which makers not now holding certificates will be granted them. Makers who have never attended a dairy school, but who have done good work in their factories will probably be given permits.

It is expected that the committee will present its report at the next conventions of the Eastern and Western Ontario Dairymen's Association. If the conventions approve of the proposal, the Ontario Legislature will be asked next year to pass legislation making it compulsory on and after January 1, 1910, for cheese and butter makers in Ontario to hold certificates or permits before they can take charge of factories.

This is a forward step that has been advocated strongly, during the past two years, by the Canadian Dairyman. A little over a year ago the Canadian Dairyman published petition forms, praying for action along this line. These petitions were signed by over 350 cheese and butter makers. The petitions were presented at the annual conventions in 1907 of both the Eastern and Western Ontario Dairymen's Associations. Both conventions passed resolutions approving of the legislation asked for in the petitions.

The action of the executive of the Eastern Ontario Dairymen's Association is the most advanced and most important step the Association has taken since it started the agitation for the sanitary inspection of factories. The competition of improperly trained and inefficient makers has driven many of the best makers out of the business. Of late years it has been a difficult matter to obtain enough good makers at the wages offered. The proposed legislation would protect the best makers from the competition of the incompetent men, it would ensure the manufacture of a better quality of cheese and butter and the patron of the factories would reap the benefits of the higher prices their cheese and butter would realize. Makers are invited to send us their views on this matter.

Opportunity for Canadian Dairymen

A product that is made by the Okatai Fathers in the northern part of Japan, and which resembles fresh Holland cheese, made a ready sale among the better classes in Japan. The demand for this article far exceeds the supply, says Commercial Agent W. T. R. Preston. There is a good opportunity here for Canadian dairymen to supply an active demand.

The large or ordinary cheeses are now offered for sale at Japanese provision stores throughout the large centres, and in reply to inquiries dealers assured him that, with the

changed condition of the people, there is an ever increasing demand for this article of food.

Small Factories

"One of the greatest hindrances to the cheese industry," said Mr. N. J. Kuneman, speaking recently at the Manitoba Dairymen's Convention, "is the number of small factories. Small factories need a manager all through the business, cheap makers, cheap buildings, cheap equipment. A factory can be profitable only after a certain amount has been made to defray expenses. Often we find a certain factory doing a good business when another one is put up close by. Consequently, neither will make a fair living. That is the time when the trouble begins. They will take in all kinds of milk to try to freeze each other out, whereas if there was only one good sized factory there would be better chance to get their cheese made cheaper and of better quality. The larger the factories, the better and more uniform will be the quality of the cheese and it is easier to secure improvements."

Difficulties to be Overcome

First and foremost in the production of a first class cheese, is the raw material; we must have a better quality of milk, as all depends upon the flavo and the greatest of its true value. The milk producer must make improvements in the quality of our dairy products is to be of the finest. A poor flavor is always to be traced back to the patrons of factories. Although people often send very inferior quality of milk to the factories, they expect the maker to turn out a first class cheese. It is the greatest fault enough to accept such milk he is blamed for everything.

Second to flavor comes the texture, for which we can hold the producer responsible to a greater extent, especially if his milk is over ripe. This over ripening is due to the faulty method of caring and handling of the milk. We cannot hold the patron responsible alone, however. The maker comes into the game. We cannot hope for any great improvement unless we have makers who have the backbone to return bad flavored over ripe, or any milk that is not suitable to make the most and the best article out of. Many makers do not the courage to return bad milk. Some will not for fear of vexing their patrons so that they may leave them and go to a neighboring factory that is waiting with open arms to receive them.

Fortunately, defects in milk are not general, they are nearly always confined to a few patrons. The evil effects to the whole, however. One or two defective cans of milk in a vat of about 5,000 lbs. will contaminate the whole vat. If 25 cans of milk are reduced to the extent of from 5 to 15 lbs. a 1,000 or about 25 to 65 lbs. on the whole vat. The resultant inferior quality may amount to from 1/2 to 3 cents a pound. Allowing 11 cents to be the price of cheese, the total reduction (taking 10 lbs. cheese a 100 lbs. of milk) would be \$9.65, striking an average on both price and number of pounds lost. In taking in such milk, therefore, a loss of about 3 times a maker's salary is incurred. Despite this the vast majority of offenders refuse to do any better.

If the maker wishes to run the risk of manufacturing this sort of raw material, and the buyer will accept the inferior product, it would be a step forward if we could place a penalty upon the maker for accepting such milk. We should hold the patron responsible for the flavor and the maker for bad texture. Many makers depend nearly altogether upon the inspectors to keep their patrons in line. They do not try very well, but it is just so much energy expended for



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on roller bearings. There is great range of adjustment everywhere. The draft is low and direct. Machine balances perfectly, no neck weight or size draft. Machine is easily mounted on trucks for transporting. Binders are made in both right-hand and left-hand, in standard and wide (8-foot) cut. The McCormick line also includes binder twine, mowers, tedders, sweep rakes, side delivery rakes, hayloaders, stackers. Also a complete line of tillage implements and seeding machines, comprising disk drills, shoe drills, hoe drills, cultivators and seeders, smoothing, spring-tooth and disk harrows, land rollers and scufflers, also gasoline engines, cream separators, hay presses, wagons, binders and manure spreaders. For particulars about binders or any other machine call on local McCormick agents, or write the nearest branch house for catalogs.

nothing. If the makers will not back the inspector and carry out his instructions, no good will be accomplished.—N. J. Kuneman, cheese factory instructor, in an address to Manitoban dairymen.

Prosecutors will be Appointed

The executive of the Dairymen's Association of Eastern Ontario, met at the Parliament Buildings, Toronto, on February 27, and consulted with Mr. G. A. Putnam, Director of Dairy Instruction, regarding the work of the coming season. It was decided by the Association, that they would furnish two men to deal with the question of adulteration of milk. These men will be known as public prosecutors. In the past more or less of the time of the instructors has been devoted to this feature of the work, and as the Department is anxious that the instructors and inspectors shall devote their whole time to purely instruction and inspection work, the Association has met their wishes by deciding to appoint two men to act as official prosecutors. The system adopted by the Eastern Association, was followed by the Western Association for the first time, last season, and the results have been entirely satisfactory.

It was decided by the Association to again arrange for district dairy

meetings in the fall of 1908. The Eastern Section of the province is now divided into 16 districts, and it is the aim to hold a special meeting in each of these some time during November or early in December. The Association expressed their gratification with the work done by the Department, in sending out instructors, and in furnishing literature to factorymen and producers. It is the intention of the Department to furnish each factoryman with a full statement regarding the intentions of the Department in the matter of instruction and inspection for the season of 1908. The co-operation of the factorymen during the past season has been much appreciated, and we are practically assured of the continuation of this co-operation for the coming season.

The Association recommended that the instructors so far as possible, visit the premises of the producers in order to give instruction and advice in the handling of milk on the farm. The Association highly approves of the action of the Department in sending speakers to annual meetings of factories last season. In this way a great many producers were given instruction as to the care and handling of milk, which is one of the most important features from the quality standpoint.

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Conquest of Rosehill Parish

(Continued from last week)

Julia hardly knew how the rest of the week passed. One evening they spent at the Hostie's, but she was too nervous and too anxious to appreciate Tom Hostie's evident attentions, while his indifference and unconcernedness only deepened the growing interest.

Happily when Sunday came, it came with a glorious burst of sunshine. Julia did her best with her father's old coat, but without a word to him of the importance of the occasion.

When the service was over, it was Mrs. Coster who went forward to the pulpit steps to thank the Rev. Addison Jordan for his "nobles" and "elevating" discourse. She regretted that a much larger congregation might not have had the good fortune to hear such a "refined" service.

The afternoon brought Tom Hostie with a note from his father which ran—

"Rev. and Dear Sir:—The parish committee instruct me to request you if your engagements permit it, to extend your supply of our pulpit to cover two more Sundays, so few of our congregation having had the opportunity of hearing you.—Jonathan Hostie."

Julia was too agitated even to see the bearer of the note. As soon as he was gone, however, Julia hugged her father, and then had a good cry, hiding herself on the back of his neck.

"Did not I tell you, my dear Julia, did not I say that I had a premonition these good people would become my parishioners? Will you not be happy as a queen in this most lovely spot?"

But Julia only sobbed; and a awful sense of her own weakness came over her. "I don't know. I want to go to bed," and hurriedly stifling her tears with a handkerchief she hastily retired.

The following Sunday, double the usual congregation appeared at the village church. People meeting in the vestibule before service sagely asked each other, "Were you here last Sunday? What, you haven't heard him yet? Well, he's not like any supply we ever had in Rosehill before. He comes from away up in the English aristocracy. Perfect culture, you know, such repose, such breeding. Why, it's an education to listen to him. Dr. Jordan is accustomed to the highest society. The Duchess of Earladele corresponds with him, the celebrated Lady Charlotte Clivedon became a Christian through his influence, and he has even been invited to preach before royalty. It is a distinction to our village to have such a celebrity."

For Julia, watching the people filling up the pews, experienced such conflicting emotions it was no wonder Tom Hostie thought her face the most wonderful study in dissolving views he had ever seen. She had planned an anti-campaign and been successful. The deception she skillfully practised on Mrs. Coster worked more effectively and far more rapidly than she in the least expected, but now the triumph was won, an awful sense of the sinfulness of her own conduct oppressed her heart. True, she had only given her fancy a little play in relating to Mrs. Coster her father's past, but she had done it intentionally, not accidentally, and had been led on to make exaggerations far beyond her first intention.

Even in her distress, however, she could not fail to observe that the service, as it proceeded, was more impressive and more beautiful than anything she had heard before. The eager

faces, the well-filled church, such an unusual sight to the patient minister touched Jordan. In the morning he preached. But the degrading thought pierced her that she was not only shaming and soiling her own soul, but the sacred and holy spirit of her beloved father.

That Sunday proved the most astonishing day in the life of the Rev. Addison Jordan. In the morning he preached to a larger congregation than ever before in his life, and with more joy and emotion than he had ever before experienced. In the afternoon a call had been extended to him by the parish committee, with a verbal guarantee that it would be afterwards confirmed by the whole church. And in the evening, his daughter, to whom he felt absolutely sure this offer would come like balm to a troubled heart, his daughter Julia, with pale, determined face, had solemnly made him promise to decline the call.

The news of the distinguished Dr. Jordan's refusal of the committee's offer of a settlement spread to all the distant ends of the scattered parish, and something like a sensation occurred. The concluding Sunday saw the church really filled, the deacons and committee absolutely excited. The innocent truth of this sudden interest accepted it all with the simplicity of a child. What sublime radiance shone from his spiritualized countenance, as without restraint he poured forth the secrets of his own secure faith.

Entreaties and beseechings were all in vain, however. Julia insisted on returning to Boston and poverty. To her, nothing less than relinquishing the longed-for reward could atone for her own wrong doing. Still in the distress of her troubled heart, she did not yet find peace, even though she was about to face unknown years of drudgery as a penance.

Her attempts to appear cheerful before her father, broken by sudden uncontrollable fits of passionate weeping in his arms, aroused the good man in her to extreme tenderness, and that again added agony to Julia's self-reproaches. Her father, however, somewhat comforted himself with the delicate conviction that this was only a manifestation of woman's inexplicable nature, and that doubtless Julia's maidenly affections had been disturbed by the undivided attentions of handsome Tom Hostie.

Julia, as unconscious of her father's thoughts as he of hers, was still brooding over her unconfessed shame, when a new turn was given to their affairs. Mrs. Coster's brewer's widow sent her carriage down to the hotel with a nice note to Dr. Jordan begging him as a last mark of his kindness, to send her the titles of all his works, especially those "Originals" that she might order them of her bookseller to place upon her shelves in honor of one for whom she should always "cherish a lasting regard."

When Mr. Jordan referred this extraordinary request to Julia, that impulsive girl returned in the carriage herself, and finding the widow alone threw herself at her feet and poured forth a full confession of the whole wicked deception.

At first Mrs. Coster was bewildered and shocked, but the more she thought of it the less important it seemed. Indeed, she soon began to enjoy the humorous aspect of the situation. "Why, you're a regular little witch," she cried at last, a broad smile lighting her expressive face. "To think that you've set the parish by the ears. I shall laugh till my dying day when I think of it. And yet, my dear, what has come of it? Your father is

a saint. His influence will give new life to our church. Now you trust the rest of this affair to me. I'll settle with the parish. Go. You mustn't think of it! You've just about worried yourself sick. I shall send for your father and I have you both up here for just as long as you will stay with me. Now don't object! Be good, my dear, and stay."

And so Julia and Jordan consented to withdraw his letter declining the call and he became after all the happy and most beloved pastor of the church.

Julia recovered her good spirits and as she had at first conquered the parish by deception, she now won it all over again by a conquest of love.

The Woman at Home

To clean baby's bottles, put the nipples in a pan of cold water; set pan on the stove and let the water come to a boil. Boil two or three minutes. And as for cold water, use one teaspoonful of soda in each bottle; fill bottles with boiling water; let stand until cold enough to handle. Shake well and rinse in clear, cold water.

No woman can look her best unless her hair, skin and hands are properly cared for, and to accomplish this the best of combs and brushes, etc., are required. In addition to good quality in these toilet articles, they must be kept in the best condition or the result will be unsatisfactory. A hair brush should be cleaned—that is, washed—once a week in hot water and ammonia.

Linewater is not only frequently prescribed for young babies, but is also often given to older children, the addition of a small quantity to hot or cold milk rendering it lighter and more digestible. The only drawback to its use is the fact that, to be efficacious, the linewater must be fresh, and for this reason only a small amount should be prepared at a time. Lace neckties, collars and capsize collars, are abundantly worn, but with the addition of a fold of velvet or ribbon around the neck and down the front edges. It is indeed, remarkable the change effected by the donning of one of these pretty additions to the waist. They are a garment in themselves.

Care of Kid Gloves

It is not generally known, or does not appear to be known, even by those who wear kid gloves almost exclusively, that the durability and set of these articles, depend very much upon how they are put on the first time. Two pairs may be taken from one box, of exactly the same cut and quality, and by giving different treatment, when first putting hands into them, one pair will be made to set much better, and to wear doubly, or nearly that length of time, longer than the other. When purchasing gloves, people are usually in too much of a hurry. Never allow a stretch-er to be used for the gloves will not be likely to fit so well for it. All of the expansion should be made by the hands.

If the gloves are so small as to require the aid of a stretcher, they should not be purchased, as they will prove too small for durability, comfort or beauty. When selecting gloves choose those with fingers to correspond with your own in length; take time to put them on, working in the fingers first, until ends meet ends; then put in the thumb, and smooth them down until they are made to fit nicely.

A glove that sets well will usually wear well, at least will wear better than one that does not. It does not fit well. When the ends of the gloves do not come down right, or when they are so long as to form wrinkles upon the sides of the fingers,

they will chafe out easily. When the stretcher has to be used to make the fingers large enough, the body part will be so small as to cramp the hand so that it cannot be shut without bursting the seams of the gloves.

Unfinished

At Uncle Jack's they had a lot Of little things to pet,
But everything was sent so quick,
It wasn't finished yet.

The Puppies tumbled all around,
And couldn't hardly go,
And when we found the little chicks
Not one of them could crow.



Baby Willie and What He thought about Things at the Farm

The bossy hadn't any horns;
The kitten couldn't see,
They didn't finish anything,
The way it ought to be.

Not even the little baby girl
They sent to Auntie Ruth;
For Grandma said she truly
Didn't have a single tooth.

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Sewing Room Helps

A combination like the following makes a nice gift for a friend, or will be found useful at home. A small fancy emery, a small pair of scissors and fancy needle book, each attached to a piece of narrow ribbon, either of the same or different colors, and fastened to a substantial belt of ribbon. The needle book may contain a pocket on the outside, large enough to hold the thimble. The friend thus favored, spends little time in looking for these articles, which are usually so easily mislaid.

A bit of veiling basted over a hole in a stocking to be darned, for a foundation, will help the darning when the worn place is large. Old lace may be used for this also.

On all my dress skirts, I stitch three hooks on the band, one in the middle of the back, and others about two inches from each side of the middle. On my blouses, instead of eyes, I sew small rings that have been covered with button art. I find this better than any of the patch arrangements I have tried for keeping skirt and waist together.—Jessie Brown, Peel Co.

My little boy's flannel underwear proves quite expensive, as he grows so fast, so to lengthen the sleeves of the shirt, I insert in each a strip of flannel just above the elbow. As soon as the drawers grow short for him, I take the bands off, sew flannel pieces to the tops and put new bands on. In this way, flannels can be worn three winters.—H.F.G., York Co., Ont.

When I mend a woollen garment, I take a scrap of the same goods, tear it lengthwise and ravel one thread at a time. Thread an embroidery needle, and weave the torn parts together carefully in the damp and press well on the wrong side, and the threads will never be seen.—Annie Backus, Hastings Co., Ont.

When cheap, seamless drawers are slightly worn, they make good kitchen towels. Cut lengthwise, and hem them, or overcast the sides. One sack will make two towels. They are easily washed.—Lottie Robbins, Nova Scotia.

When a hole is discovered in a starched waist just before ironing, the easiest way to mend it, is to baste a patch on the wrong side. Make the patch of stuff like the waist, dipping it first in starch, and then iron flat to the blouse, on wrong side. It does not show, and will stay on the waist until it is soiled; it then can be mended in the usual way.—Laura Woods, Halton Co.

If you have a rug on your sewing room floor, turn it wrong side up when doing floor sewing. When through the work, gather the rug up and shake it out of the window or door. This saves sweeping.

Our boys wear ribbed stockings, and, when mending has to be done, if the holes are not too large, I sew them on the machine. The stitching does not show on the ribbed part, besides, it is much neater and stronger than darning would be, and more easily and quickly done.—Mrs. Starr, Welland Co.

Save all the trimmings from the un-

Tobacco Habit

Dr. McTaggart's Tobacco Remedy removes all desire for the weed in a few days. A Vegetable medicine, and only requires touching the tongue with it occasionally.

Liquor Habit

Marvellous results from taking his remedy for the liquor habit. Safe and inexpensive home treatment; no hypodermic injections, no morality, no loss of time from business and a cure certain. Address or orders Dr. McTaggart, 75 Yonge Street, Toronto, Canada.

even ends of new table linen when hemming same. Nothing else darns the thin places, or a cut in a tablecloth so nicely. It shows much less, than when darned with cotton.

A Lap Shield is Useful

For this attractive lap shield take two squares of heavy cheese cloth, (each from two feet to three feet square), between them place a double layer of nice cotton batten and baste them together through and through. Cut off a small triangular piece at each corner, turn in the edges of both covers and run them together neatly.



Tie with double Zephyr—blue, or any pretty washable color. Go all around the edges with long and over stitches, taken regularly, and finish by tacking the shield all over with bright fluffy knots, just as a comforter is tacked, using the wool double in the needle and leaving the ends an inch long. A set of shields, each tied with a different color, would be highly valued in any nursery. Daisy shields are tied with yellow, and rose shields with pink.

To Fold a Coat

There are few women who have mastered the art of folding a man's coat, yet it is simple when one once knows how. Lay the coat out perfectly flat and with the right side up. Spread the sleeves out smoothly, then fold them back at the elbow until the bottoms of the sleeves are even with the collar. Fold the revers back and double the coat over the centre back seam. Smooth all wrinkles out and lay in the drawer.

Extra Ruffles and Touches

The large department stores show some very pretty additions to the lingerie, many of which one can make at home very easily. A silk or linen lawn ruffle, which is worn across the top of the corset at the bust line, is made of any dainty color, or white, preferably the latter. The edges, if it is made of silk, are pinked, and it is then pleated so closely in large box pleats, as to form a ruching.

Nearly every one nowadays wears unlined shirt waists made of silk and wool and this ruching holds the waist out prettily at the bust line, without the use of pads.

The underwear counters in the large stores show a kind of corset cover, which goes on over the head, and which is one mass of narrow ruffles in the front, running across horizontally. When starched, these ruffles fill out the blouse in graceful lines and curves. One could make and apply the ruffles to any full front corset cover, allowing special fullness in the middle where the ordinary cover buttons.

These are two articles any woman can make and all of them go to improve the effect of one's gown. It is the very little touches that make or mar one's appearance, and when these are just right, one feels "well dressed."

Two Good Books

Lovers of canaries can not do better than to send us 50 cents for our book, "Canary Birds," which is a manual of useful and practical information on the canary. These little feathered songsters need the best of care and



A Grand New Oat LOTHIAN WHITE

Last season this grand Oat drew attention wherever grown. Anyone that saw a field could not help but admire the superb, strong, healthy crop.

The Growers were all pleased.

Early, strong straw of medium length.

Get the Newest and the Best while you are at it

ONTARIO GROWN STOCK - - \$1.25 per bush.
SCOTTISH " " - - \$1.75 "

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Send for Samples and Prices of any Red, Lacrosse, & Alyska Clover, also Timothy

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attention at all times and the information contained in the above book will be worth many times its cost to any one raising or keeping canaries. Every farm home should have a window garden. Send us 50 cents for a copy of "The Window Flower Garden," by J. J. Heinrich. The author is a well known practical florist, and his experiences as given in this little book, embody everything in amateur window gardening.

Our Winter Fun Contest

A large number of interesting and newsworthy letters have been received from our boy and girl readers in reply to the contest which was opened in the Feb. 26th issue. Those who have not yet sent us a letter are urged to do so as soon as possible. This contest will close with our March 26th issue. All letters should be in not later than March 31. Let us have all the photographs possible. Get your big brothers and sisters busy with the cameras for perhaps your letter would win a prize if it had a nice photograph sent with it.

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A delicious drink and a sustaining
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maintains the system in robust
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COFFEE?

If not, you have no idea how good it is; how easy to make, and how economical in use. Just try a bottle next time you want coffee—follow the directions on the label, and you'll be astounded. It is so good.

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PIANOS
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ORGANS
CANADA'S BEST MAKE

The home is not complete without a BELL.

Illustrated Catalogue No. 11 sent free.

THE BELL PIANO AND ORGAN CO., LIMITED
QUELPH, ONTARIO

Before House Cleaning

To make house-cleaning easy, I find a great deal depends on what you do before that time. I plan in March, or as soon thereafter as possible to do my white sewing. All the belongings in this line are looked over to see what is needed. Then I buy what muslin, bleached or unbleached, is wanted, stockings, handkerchiefs, etc. I cut up all old white garments and make rolls of old white cloth, and the old towels and napkins that are past service are also made into rolls. When house-cleaning time comes, I know just where to find my cleaning cloths. If I need new covers on my sofa pillows I make them but do not put them on until my rooms are all cleaned. If any chairs need new covers, or windows new curtains, I also attend to them. Later on, as soon as a room is cleaned, you have your material right at hand to freshen the furnishings.

Don't forget the bedding. If anything needs washing, that should be done first; if any part is worn, repair it; if the binding or lining is worn, put on new; if the ribbon on the flannel blanket is worn, rip it off and bind with light-colored chambray or gingham cut on the bias.

Pick up all odds and ends of cloth you don't want to piece, give to some one who can use them for kind work, or tear them into rags for hat and miss rugs or a carpet.

I look over all under-skirts and after putting in good order, I examine all the home dresses. Perhaps some are hardly worth mending, but if they are good enough for house-cleaning, repair them, and they will save you good ones. After the home dresses are made good, don't fail to have a good supply of long wide-work aprons. Look over the best of your wardrobe, but don't attempt to work at those until after cleaning is done. You will now have plenty of time to think and plan what you will need to do, or, if you hire it done, engage some one you know to do it. Then all closets, drawers and boxes should be thoroughly cleaned and straightened.

When shopping, I try to think of the things I will need at house-cleaning time—tacks, paper for pantry shelves, new brooms, cans of paint for chairs and floors, not forgetting porch floors, paint brushes, stains for floor or furniture, etc. By this time I feel as though I was ready and wanted to begin. I take one room at a time, setting apart one clear day to hang out clothing, and another day for cleaning and airing all bedding.

Home Paper Hanging

First, in selecting the paper, select a pattern that will match easily and that can be cut without much waste. This rule may be stretched a little, but large figures should be avoided in small rooms. A dark room or one on the north side of a house, may be brightened by using a warmer tone of paper, than in a room with a sunny exposure. A soft shade of yellow or deep cream is desirable to see day after day, and has the advantage of harmonizing well with nearly all colors of carpets, curtains, etc. Pale sage green or cold blue may be used with good effect in a room where the bright sunlight streams the greater part of the day. Striped paper increases the apparent height of the room. Never choose a pattern with wavy lines or one with a decided figure, for a bedroom. In case of sickness the invalid will almost involuntarily count the spots or follow the wriggling lines on the paper. A soft intrain paper of one color is restful to the eye.

TO PREPARE THE WALLS.

If they are more than two layers of paper on the walls they should be removed. Pull off as much of the old

paper as you can get off, then saturate what still sticks to the wall, with warm water; let it stand a half-hour then saturate it again, and the paper can be easily scraped off with a knife blade. Remove all nails and fill the holes with putty or else a paste made of plaster-Paris and cold water. The washed walls should be washed with water and strong vinegar. Use one quart of strong acid vinegar to two of water, apply the solution well around the casings, baseboards and corners.

As the paste is to be used cold, it would be best to make it the day before using. To every quart of well sifted flour, add a teaspoon of powdered alum, mix smooth with cold water, and pour in boiling water, stirring rapidly, till the paste is of the consistency of thick cream. Remove it from the stove as soon as it comes to a boiling point; strain it through a flour sieve or colander. If the paste is lumpy, this cut will not all pass out from under the paper and as the paper is drying it will crack wherever there is an air bubble. Pour in the water or vinegar on top of the paste to prevent a skum from forming.

Do not undertake to paper a room without a helper. If you have an assistant change off work with a neighbor. A smooth board, the exact length and width of the paper will facilitate the work of spreading the paste. If you have nothing better, an extension table will do nicely. Begin with the ceiling. Measure it the shortest way of the room, ascertain how many strips will be required. Cut out and match them before spreading the paste. Cut the strips fully two inches longer than the measurement of the ceiling. This extra amount is to allow the paper to lap down an inch upon the walls at both sides, which is necessary to insure a neat finish when the borders are put on.

Now draw a guiding line across the ceiling with a lead pencil as wide as the paper. Use a clean whitewash brush to spread the paste. If the paste is too thick to spread well, thin it out with cold water. Spread it evenly, being careful not to leave any dry spots of paper. Turn up two or three feet of the paper to make it easier to handle, with the pasted sides together; with your helper's aid, lift the paper to the ceiling, and when you hang it matched press the edges of the paper on the wall, then let the helper turn back the folded end, and when it is all nicely matched, brush the rest of the paper to place with a clean white broom. If wrinkles appear, gently pull the paper loose, remove the wrinkles, and press the paper in place again. Air bubbles should be pricked with a pin to allow all the air to escape. If the seams of the paper are lapped from the light they will be less noted if the paper is hung.

To hang the paper on the side walls, follow the instructions as given for the ceiling. Cut the strips long enough to extend down on the baseboard about an inch when the paper is applied. Press it down on the baseboard. Then loosen it and cut off the paper in the margin made by the baseboard, and press the paper to place again. This is the only way to get a neat finish to the baseboard.

Helpful Hints

A good way to shrink cloth, before making it up into garments, is to dampen a sheet thoroughly, spread it out, and laying the cloth on it, fold both over and over together, leaving it in this way from one to three hours. Then hang it across a straight bar (not a clothes line or anything that will sag), or iron it smoothly, being careful not to stretch it.

If the tea or coffee pot is discolored on the inside, boil it for a short time

in a strong solution of borax, and all the brightness will return.

Sometimes, after cleaning a spot off a garment with gasoline, an objectionable stain remains. If the stain was removed. To obviate this ring, lay over the place, a piece of clean white tissue paper, and press with your fingers. This removes all traces of the stain.

For not too severe burns, nothing is better to apply than moistened lint, or lint made by the use of flannel and prevent a scar. (To be used only when burns are serious.—Editor).

Improvements for the Kitchen

Every housewife will agree that the kitchen is the most important room in the house. Perfect ventilation is the first requirement of any up-to-date kitchen. Light comes a close second, and next in turn, and almost necessarily first, is cleanliness. Do not paper the walls of the kitchen, if you can have them painted. They look better, and are cleaned with a damp cloth, making a cleaner atmosphere, without great demands on the strength, and without the annoying commotion and disarrangement caused by whitening and kalsomining every year or so.

The kitchen walls, ceiling, and shelves of all closets entering the kitchen should be painted. If days of enamel paints, such a process will cost but little, for surely there is some man about the house who can do the work, and if occasion demands, most women are equal to the task themselves. Painted shelves can be wiped off with a damp cloth, every day, if necessary. Paper in kitchen closets, is always a rendezvous for dust and vermin of all kinds.

THE KITCHEN STOVE.

No matter what kind of stove or range is used, the kitchen is as good as you can afford. This is true economy. Near the range, should stand the oil burner, if you are fortunate enough to possess one, mounted on a table the height of the range, or placed upon a folding fastened out of the way, if desired. Keep the stove clean above all. They are easy to keep clean if attended to daily. The task is then not an objectionable one, and takes but a few minutes of time.

LAUNDRY ARRANGEMENTS.

When the kitchen is also used as the laundry, if stationary tubs can be had, let them be placed next to the sink. They should have a good strong cover to form a table, when not in use. One of the needs of the ordinary farm house is a suitable and convenient place for the farm hands to wash as they come in from the fields. When a separate tub is fitted up, a large tub, no provision should be made in it, for the men, by adding a large sink and bench for their use.

THE KITCHEN SINK.

The kitchen sink should be of cast iron, enameled or painted if possible. Have it good and generous in size, with as high a back as possible to protect the wall from the water which is certain to splash. At one end should be a long drain, which should be well grooved and inclined slightly towards the sink. Both tubs and sink should be well trapped.

Kitchen sinks should be treated frequently to a wash of hot water and ammonia or soda, to keep them free from deposits from grease, etc. It is very important to secure the complete removal of all such matter well beyond the limits of the house before putting it out. The use of lime or chloride of lime washed down the sink with hot, or boiling water, frequently is a good preventive for the accumulation of grease in the sink.

THE COOKS' CORNER

In an special issue, we desire to run some early recipes on bread and bread making. Readers are requested to send in any particular recipe they may have on bread making, either wheat, rye, brown, rye, Graham, or corn. Good reliable recipes will be accepted. If you have a bread recipe, kindly tell us about that at the same time. Address: J. H. Dillman, The Household Editor, Canadian Dairyman and Farming World, Peterboro, Ont.

BREAKFAST BISCUITS

One qt. flour sifted twice with 2 rounding teaspoons of baking powder and $\frac{1}{2}$ teaspoon of salt. Rub in well 1 large tablespoon of lard and add enough cold water to make a dough just stiff enough to be handled. Sprinkle the bake board well with lightly cut into small biscuits and flour, roll the dough quickly and bake in a quick oven.

A TOAST DISH

Three hard boiled eggs, a tablespoon each of butter and flour, 1 cup sweet milk, $\frac{1}{2}$ a teaspoon salt and a little black pepper, 5 slices of toast. Make a thin sauce with butter, flour, milk and seasonings. Separate the yolks from the whites of eggs. Chop the whites finely and add them to the sauce. Cut the slices of toast in two, arrange them on a platter and pour the sauce over them. Force the yolks through a potato ricer or strainer and sprinkle them over the top of the sauce. Garnish with parsley. This is a delicious dish.

SCALLOPED POTATOES

Pare and slice raw potatoes. Put a layer in a buttered baking dish and sprinkle with salt, pepper and flour and a tablespoon of milk broken into little pieces. Repeat on each layer and finally add hot milk till it may be seen through the top layer. Bake for 1½ hours until the potatoes are well cooked.

SPLIT PEA SOUP

Put to soak over night in 2 quarts of water $\frac{1}{2}$ pt. of split peas. Add in the morning a couple slices of salt pork and let it boil slowly without burning until thoroughly cooked. Then press through a colander with a wooden spoon. Add pepper and salt to taste, and, if liked, $\frac{1}{2}$ cup of tomato juice. Serve toast with the soup.

AN INEXPENSIVE CAKE

An inexpensive fruit cake is made with $\frac{1}{2}$ cup of butter, 2 cups of

PLAIN TALK FROM THE DOCTOR

A prominent physician, famous for his success in the treatment of kidney and bladder troubles, stated that to the following prescription is due a great deal of his success:

- One ounce fluid extract dandelion;
- One ounce compound salutaris;
- Four ounces compound syrup sarsaparilla.

Mix and take a teaspoonful after meals and bedtime, drinking plenty of water.

This mixture will, he says, positively cure any diseases arising from weak, clogged or inactive kidneys, and will assist these organs to cleanse the blood of the poisonous waste matter and acids, which if allowed to remain, cause lumbago, lame back, rheumatism and sciatica, and at the same time will restore the kidneys to their normal condition.

The ingredients, which are purely vegetable and entirely harmless, can be procured from any good druggist and mixed at home at very little cost.

This advice will undoubtedly be much appreciated by many readers.

sugar, 6 cups of flour, 4 eggs, 1 teaspoon soda for 2 of baking powder and 1 cup of sweet milk), $\frac{1}{2}$ lb of currants, $\frac{1}{2}$ lb of raisins, $\frac{1}{2}$ lb. candy peel, 2 nutmegs, 1 teaspoon allspice, 1 teaspoon cinnamon, 1 teaspoon of cloves and molasses. First cream butter and sugar, then add eggs and milk. Bake in two cake tins.

A CHEAP STEW

The following is a recipe for a cheap stew that is savoury and appetizing. Cut 2lb of the scrap end of a neck of mutton or veal into neat pieces, slice them neat stew-pans, and cover with boiling water. Add 1 carrot, 1 onion, 1 turnip, sliced, and a seasoning of pepper and salt; let the stew boil until they remove the scum, and simmer the stew slowly for a couple of hours. It is an improvement to add a few st dumplings.

ROCK CAKES

To make lunch or rock cakes take $\frac{1}{2}$ lb flour, $\frac{1}{2}$ lb butter, $\frac{1}{2}$ lbs raisins, 3 tablespoons of sugar, 2 teaspoons baking powder sprinkled in, 2 ozs. peel, $\frac{1}{2}$ teaspoon each ginger, cinnamon, or nutmeg, rind of half lemon, grated, 2 eggs and $\frac{1}{2}$ cup of milk. All ingredients must be in before eggs are added. Then beat eggs till light, and add and beat. Take a little mixture and lift as roughly as possible over to pan. Quick oven from 15 to 20 minutes.

BEEF LOAF

This is one of the most delicious "made" dishes that can be concocted from the remains of a roast, and can itself be transformed into Hamburger steak by slicing and frying in butter, or into hash by chopping with cold boiled potatoes. Take about 1lb of the ragged and broken parts of the cold roast and put through a meat chopper, together with some celery and onion. Add 1 cupful of fine crumbs, $\frac{1}{2}$ gill of milk, or lemon juice and a little oil or fat, or gravy, 2 well-beaten eggs, a tablespoonful of chopped salt pork or bacon or melted butter, and additional seasoning, if necessary. Mix all thoroughly with a big spoon in a deep bowl until smooth and light, then turn into a warmed, greased pudding dish and put through a steamer one hour or a little more. Serve sliced thin, either hot or cold, with tomato sauce, horse-radish or other appetizer.

What Women Can Do

It is unfortunate that every woman in Canada could not have heard the very able and interesting address on the Home, delivered by C. G. James, Deputy Minister of Agriculture, at the recent convention of Women's Institutes at Guelph. Had we the space at our disposal we could not do better than give our readers this address in full. As we are unable to do this, a few of the shorter and more pointed remarks have been gleaned from the address and are here given for the benefit of those who were unable to hear Mr. James.

The women of Canada are its true rulers, and the improvement of this country, and its uplifting will come more surely through the improvement of the women, than through any other force.

Let me repeat, the greatest hope of Canada is in her women, and the highest mission that you have to do is in the improvement of model homes, where the youth of this country may receive that equipment for life, which is the most important, outweighing all the teachings and trainings of school and college, of office and factory.

If you desire your son, your daughter, your brother or your sister, to succeed in his or her life, get the best out of this world, and to make the most of himself or herself, the best equipment that you can wish for such, is that he or she be gentle, cheerful,

enthusiastic, patient, generous and sincere. Give yours these and learning falls into second place. You need not be anxious about the life career of such a boy or girl.

I want to impress upon you that you in your homes can so direct the habits the thoughts, and the motives of the young men and women, also, that the greatest mass of the people, the most moving along right lines, and gradually obliterate from the first record of mankind, those terrible and detestable things that to-day fill the columns of so many of our papers.

If we could only from the first years of childhood, have our boys and girls trained in the essential elements of true home, we could send them out to any school, or any college, or into any line of business apprenticeship, without any anxiety whatever as to their development.

Ironing Day Suggestions

Make the ironing board with a folding leg and with a hook at the end, so that it can be hung up where it is convenient. Pad it evenly with a moved and move along right lines, and gradually obliterate from the first record of mankind, those terrible and detestable things that to-day fill the columns of so many of our papers.

If we could only from the first years of childhood, have our boys and girls trained in the essential elements of true home, we could send them out to any school, or any college, or into any line of business apprenticeship, without any anxiety whatever as to their development.

A blue flame kerosene burner oil stove, can be bought for \$3 or \$4. It will keep a set of four irons piping hot in the warm days in summer, with little fuel, and without overheating the kitchen. Between ironing days, one can use these stoves for the best of the cooking. The cost of oil burned is no more than that of the wood or coal, which a stove would consume.

For dampening the clothes, use a cheap and small watering pot. Choose one with the very finest holes, so that the water can be applied in a fine spray. To keep up iron smooth and bright, have a small piece of beeswax wrapped in muslin, handy to rub across the irons occasionally.

In ironing table linen, sprinkle with warm water, very damp and roll tight. Have very hot irons. Iron and press linen until dry. One must not hurry when ironing table linen. If possible, hang when dry out doors, where the linen will not whip in the wind. Don't use too much bluing. A tablespoonful of turpentine in the boiling soda whitens the clothes beautifully.

Banking for Farmers' Wives

Our women readers and their friends are asked to avail themselves of the privileges of the Rest Room and the Retiring Room at the Crown Bank, in Toronto, whenever they may be in the city. These two rooms have been especially fitted with every convenience and luxury, in order to make a pleasant and quiet place in which to spend a few minutes when in town. In connection with the Rest Room is a private apartment for women's banking (separate entirely from the rest of the bank), where they may do their banking, and secure any information regarding their financial matters they desire. Attractive pocket banks may be obtained for 50 cents, and a savings account opened, on which the current rate of interest is allowed.

When in the city again, start an account, if you have none yet, and at the same time enjoy the privileges of the women's department of the Crown Bank.

A booklet containing pictures of the Rest Room is being sent out by the Bank from its King Street office, and is mailed free on request, if the Canadian Dairyman and Farming World is mentioned when writing for same.

In the Sewing Room



MEN'S NIGHT SHIRT.

Here is a simple yet satisfactory night shirt that is made with a comfortable roll over collar and the patch pocket that is always so essential to masculine peace of mind. It can be finished with any little banding to be liked.

The quantity of material required for the medium size is 9½ yards 27 or 4½ yards 36 inches wide.

The pattern 5885 is cut in sizes for a 34, 36, 38, 40, 42 and 44 inch breast measure and will be mailed to any address on receipt of 10 cents.



SEVEN GORED SKIRT.

20 to 30 waist.

The skirt that is laid in plaits at the seams if the one that is quite sure to give graceful lines to the figure. The skirt is made in seven-goreds and is laid in two plaits at each seam and in inverted plaits at the centre back.

The quantity of material required for the medium size is 9½ yards 27 or 4½ yards 36 inches wide if material has figure or nap.

The pattern 5884 is cut in sizes for a 22, 24, 26, 28 and 30 inch waist measure and will be mailed to any address on receipt of 10 cents.

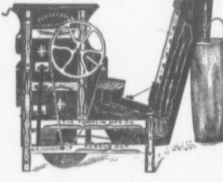


BLOUSE WITH GUIMPE, 9801.

The blouse is made with fronts and back, which are tucked on becoming lines, and to which the pretty three-quarter sleeves are attached.

The quantity of material required for the medium size is 3½ yards 21 or 34, 3 yards 32, or 1½ yards 44 inches wide; for the guimpe 8½ yards 21, 2½ yards 24, or 4 yards 36 inches wide, with 1½ yards of all-over lace, if the long sleeves are used, ½ yard for the short sleeves.

These rooms are cut in sizes for a 32, 34, 36, 38, and 40 inch bust measure, and will be mailed to any address on receipt of ten cents.



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The greatest improvement on the farming mill in 50 years. Cleans and grades all kinds of seed and grain and does the work of the farming mill as well.

Will pay every farmer to have one for his own seed grain.

This machine won the Diploma—the highest award—at Toronto, London and Ottawa fairs in 1907.

Get them from your dealer and take an "just as good" or write direct for catalogue at further information.

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Fire, Lightning Rust and Storm Proof Durable and Ornamental

Let us know the size of any roof you are thinking of covering and we will make you an interesting offer.

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FRUIT TREES WE PAY FREIGHT

Free from Disease. All Fertilized. Fruit to name. Various growers—Apple, Peach, Plum, Pear, California Poplar, all kinds of trees, plants, shrubs. Prices low. Catalog free. Write now. Telephone No. 242. Desires, C. J. H. Co., 100 Dundas St. W., Toronto, Ont.

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MARKET REVIEW AND FORECAST

Toronto, March 9.—General trade conditions on the whole have not improved any. In fact some jobbers report February as the worst month they have had for years. This may be accounted for by the frequent snow blockades and the difficulty of doing business. A hopeful feeling prevails and everyone is looking forward to a good business year spring opening in the worst month they have had for years. The financial situation has not changed very much. The banks are conservative as ever about loans. The low rates for money in England must soon have some effect here. March rates for wheat fairly well which indicates that there is some business doing and that money is more or less plentiful in some lines of trade. There are signs of improvement in business in the United States. The recovery there should soon begin to be felt here as conditions generally are better to the north of the line.

WHEAT

Receipts of wheat in Europe showed several million bushels in excess last week over the week previous, and reports regarding the wheat crop in southeastern Russia are favorable. Notwithstanding this, Liverpool cables have ruled steady to firm. The Chicago wheat pit seems to be the point of interest on this side of the water. There have been purchases here of about 50,000 bushels since wild speculations during the week and that amount have fluctuated. It is reported that Arzoo and Lichtenstein now control the market. If so, the outsiders will have to wait a while for a market. The final report of the grain crop for Saskatchewan bushels, March wheat at 27.02, 26.01 and July at 1.15. Some generally must have confidence in the future market. At Montreal there is a good contract demand for Manitoba wheat. Ontario millers are benefiting a little from an increased demand for flour. But unless this increases, they will not be buying much wheat. The Chicago market has gone 5 1/2 a bu. and flour is being exported at a basis of \$3.70 a cwt. On Toronto farmers' market, fall wheat brings 5c and goose 3 1/2 a bu.

COARSE GRAINS

The oat market is not so strong, though the business was transacted at Montreal during the week at good prices. Prices here range from 35c to 37c to quality. Here the market is steady at from 32c to 35c on track Toronto, or 30c to 32c outside. On the Farmers' market, here oats bring 50c to 57c a bu. The large buying of seed oats for 1907 should have the effect of steadying values. It must be remembered, however, that farmers have been holding their stock awaiting a higher market or until they saw how their feed supply named. But since the winter is nearing the end, and they see where they are at, farmers will be marketing more freely.

The barley market is dull and there is very little movement in the country. Here the quotations to the trade range from 70c to 75c.

FEED STUFFS

Manitoba feed wheat is scarce and prices firm. Car lots are quoted at Montreal at 56c and 57c for No. 2. Dealers here quote feed wheat at 56c for No. 2 and 60 1/2c for No. 2 at Georgian Bay. Imports will feed continue scarce under a good demand. At Montreal Manitoba bran is quoted at \$23 a ton and shorts at \$25 and Ontario bran and shorts at \$23.50 to \$24, and middlings at \$22 to \$23 a ton. Here full cars of bran are quoted at \$23 to \$24, bags included, outside and shorts \$23 to \$24 a ton.

HAY AND STRAW

The order of the British Board of Agriculture prohibiting the export of straw and hay and straw into Great Britain will not apply to Canada. We will be allowed to export as usual. Canada has always been a large exporter of hay, though on account of the general depression the exports this winter have not been as large as usual. There is a fair demand at Montreal for baled hay and it is available for all requirements. Prices rule steady at \$15 to \$16 a ton, and \$14 to \$15 for No. 2; \$12.50 to \$13 for clover mixed; \$12 to \$13 for clover in car lots; Timothy baled at \$20 for clover in car lots; and baled straw at 89c to \$10 a ton in car lots on track Toronto. On the local Farmers' market home hay, Timothy, brings \$15 to \$16 a ton.

EGGS AND POULTRY

Though receipts of new laid eggs are increasing prices keep firm. At Montreal the tone is very firm. There is an active local demand. American selected new-laid eggs are in demand at 30c, and ordinary at 27c to 28c a dozen. Here new laid eggs are arriving in fairly large quantities. In Hamilton, they are quoted at 28c to 30c, and on the Farmers' market at 28c a dozen.

The poultry trade is quiet. Receipts are light and there is little demand. Extra choice young turkeys are quoted at 15c to 16c; young geese and ducks at 9c to 11c; choice chickens at 12c to 13c;

old fowl at 6c to 8c, and inferior stuff at 5c to 7c a lb. On the farmers' market, prices are from 10c to 20c a cwt. higher, with choice young turkeys selling at 25c to 35c a lb.

DAIRY PRODUCE

The English market shows no change. The butter may receive some support off with the hope of getting cheaper goods from the Continent. The general prospect of this. Stocks are light on both sides of the Atlantic and there is no more cheese than will meet the conservative demand until the new cheese is on the market, though continued high prices may help to lessen consumption. At Montreal prices are 12 1/2c for Western colored and 12 1/2c to 13c for whites.

The butter market has lost its exciting character and during the week business has been an easier line. The very high price that were asked, as much as 35c wholesale, have curtailed consumption somewhat. This would mean retailing at 45c. It is not sure that poorer people can afford to pay. Stocks, however, are light and the demand strong and prices are bound to remain high for a time. At Montreal the demand for cream is strong. The finest creamery bringing 35c, some of the farmers bringing 30c, some others buying 28c to 30c and dairy rolls 20c to 27c a lb. Supplies are scarce here with prices firm for cream. For condensed milk, 25c to 30c for solids; and 25c for 20% cream; 25c to 30c for 10% large rolls and 25c to 30c a lb. for solids. Some choice creamery has sold as high as 35c. On the Farmers' market dairy butter sells for 25c to 30c a lb.

STEERS

Receipts of live stock on Toronto market ruled larger last week especially towards the end. The market has been cleared from the effects of the recent snow blockade. Consequently, trade was not so brisk, especially in the morning. Un-dressed finished heifers are in demand with prices firm. The quotations are: 10c to 12c for tough cattle offering and the number seems to be increasing. Sellers cannot expect good prices for stock of this kind. It will pay, even at present prices, for grades to feed the class cattle a few weeks longer. The feeder will then have something to offer worth while and something to do on the market.

The city market has developed into a butchery market. Very few quotations are sold here. The great bulk of the export trade is done at the Union Stock Yards, where the majority of choice exporters sold there during the week at \$3.40 to \$3.75 a cwt. Quotations on the city market for export steers range at about 85 a cwt., and export bulls at \$3.75 to \$4.25 a cwt. The best priced butchers' cattle sell at \$4.50 to \$4.75 a cwt. The quotations for fair and good cows at \$3.50 to \$4, and common cows at \$2.25 to \$3.50 a cwt. The best priced hogs are sold at \$10 and \$11 a cwt. Steers 80 to 900 lbs each are worth \$3.40 to \$3.75 a cwt. and steers 1000 to 1100 lbs. each \$4 to \$4.40 a cwt.

The bulk of the cowboys and springers offering are a good amount to medium kinds and sold at \$3 to \$50 each. A few of the better Illinois sold at \$5 each. Generally speaking the market for milkers and springers is not so strong as it was.

Choice veal calves are in demand. Prices range from \$10 to \$12 a cwt. Choice sows will bring 97 a cwt. or better.

The sheep and lamb market rules firm. Export sheep are quoted here at \$4.50 to \$4.75 a cwt. for good and \$4 to \$4.25 for medium quality of grain fed lambs are in demand at \$7.25 to \$7.50 a cwt. The medium quality of grain fed lambs for good, red and 56 to \$6.35 a cwt. for the medium quality of grain fed lambs for choice butchers' purposes sell at \$5.25 to \$5.50 a cwt. Choice spring lambs are quoted at \$4.25 to \$4.50 a cwt. On Thursday last at 11c 87 1/2 a piece.

The sheep and lamb market prices in the American hog market and if all that we hear about Canadian packers bringing American hogs to Montreal, it is not certain that our packers will be a check put upon it soon by the advance to the south of the line. In any case, the certainty of our packers bring the carcass over there, dip it in brine, and then export it, is a check put upon the Canadian customs at 2c a lb. instead of 3c for the fresh article. If the government should certainly take action at once. But why any packer will export to the United States, and bring it in here, when he can buy hogs at home so cheaply is a mystery. It may be that the certain of our packers "bearing" the home market, thus enabling them to export their hogs at a profit, made at a price that will enable him to make a profit at present prices for bacon in England, and certainly later. However, he has had an overplus of hogs in England, and he has been at the flattening out of the market at a season when prices should be on

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a much higher level than they are. Hogs last week on Toronto market at \$5 for select and \$4.75 for lights and fat, and \$4.75 for the best at country points.

THE HOG SITUATION

The hog market situation is of the most serious character. It is very difficult to improve soon the industry will receive a set back which may take a year or more to recover from. The development of the bacon trade in the last decade has had much to do with the prosperity of the farmer in Eastern Canada. To allow it to fall behind just now would be a serious injury to one important phase of agriculture.

The farmer asks why continue it, if there is no profit in the business of hog raising? Feed is high in price and at \$4.75 per cwt. for select bacon hogs there is no money in feeding them. Better then quit and devote our energies to something more profitable. This is one way of looking at it. But there is a broader view. For the past three or four years, it cannot be denied, hog raising has been one of the most profitable branches of farming, and the way to size up the situation is not to conclude because a period of very low prices comes along that the industry is not worth looking after. The business should be judged by its record for a longer period looked at from a broader point of view, the bacon trade is one of Canada's most valuable assets and should be continued. Because the cattle market drops to a low ebb the cattle feeder does not stop feeding cattle. He may cut down the number he is fitting for market but does not let go altogether because the market soon against his intention, as many hog raisers do. Periods of low prices come with every other year, but the pig culture at times and yet farmers keep in the swim, and are ready for the rise which is sure to come or later. This should be their attitude towards the bacon trade. If the price is sure to come, and if we are not mistaken a change for the better in the hog situation is soon due. During the past year there has been some improvement in the American hog market and it looks as if things here had reached rock bottom, and that an up-turn in the market is near at hand.

Upon the packer is put the blame for the present continuing slump. When asked about it he refers you to the English bacon market. And really he has strong backing for this. In Canada, the Canadian packer is paying all and a little more than the English market will warrant him in paying for live hogs. If he refers you to Denmark's very large "killing" which averages about \$9.00 per hogs every week. The Americans also have been sending immense quantities of bacon to England this year. There you will find it, he says. The Englishman will not pay high prices for Canadian, when he can get all he wants of the best Danes and it is a large supply of a lower grade of American at the low values that rule in the country market at the present time. They who blame me, says the packer, I am doing the very best I can for you.

But what about the large imports of American dressed hogs that have been brought into Canada by the packer, the past few months? Has not this helped to keep down the price of Canadian hogs? To these questions the packer replies: "Ever since the Canadian bacon trade was placed on its feet there has been more or less of the importation of American dressed hogs into this country. This winter, owing to lower values for the live animal to the south of the line there has been more brought in than usual. All the fresh pork supplied to Western Canada this winter has come from the United States. This is brought in and so on, but duty paid on and the packer makes a profit in handling it."

The producer and the packers side in the matter. The latter as much as to blame for the present market situation many farmers believe him to be. Has he not some strong reasons for his contention that he has been and is paying as much for hogs as he can get for them? We believe the reasonable farmer will say that he has.

THE BEEF CATTLE TRADE

In connection with the agitation in Great Britain for the removal of the embargo against the Canadian cattle, some rather startling arguments have been presented. In an address at Aberdeen recently, Mr. H. D. McCombie, a leading breeder of the country, stated that there was a criticism in the quality of the store cattle in that district and proposed: (1) That Canadian animals should be given in the purchase and spread of pure bred bulls; (2) The embargo prohibition of the export of pure bred stock from the country; or (3) The opening of British ports to Canadian cattle.

This proposition of this nature, especially as the first to be made by a prominent cattle-breeder in the old land, is as good as a challenge to the Canadian well acquainted with the stock industry of Great Britain. The reasons advanced against the inferior quality of the store cattle are the lack of sufficient capital to produce good milk prices and the raising of the best Shorthorn animals for the

Argentine which leaves only the inferior kind at home, government aid in supplying pure bred bulls in Ireland has very much improved the quality of the store cattle, upon which many in the United Kingdom are dependent for their supply of feeders. The argument is made that the Irish feeder reports improved very much in quality of late years, is not of good enough quality to export to the British trade, hence the cry for improvement in home store cattle.

To prohibit the exportation of pure bred stock is the most surprising of all. This trade has produced millions of dollars to the country and will continue to do so. Even though so many high-priced bulls are exported to South America, there should be plenty of breeding stock to insure a good quality of store cattle being produced. Canadian importers well acquainted with the trade tell us that there are hundreds of Shorthorns of excellent type, not eligible to register in the Canadian herd book, but sufficiently good individuals to produce first-class beef cattle and many of them give a good supply of milk besides. These are the cattle that many would like to see brought to Canada in larger numbers for distribution among the average farmer. Their inability to register in the Canadian Shorthorn book looks like a barrier of them were brought over last fall by Prof. Archibald for his studies at the College, St. Anne du Bellevue, Que., and the experiment will be watched with interest.

The opening of British ports to Canadian store cattle looks like a very present indication it is questionable if the embargo will ever be removed. The recent outbreak of the foot and mouth disease in Scotland puts a strong barrier in the way. Canadian breeders had better turn their attention to the development of the dead meat trade and endeavor to make the best shipping live cattle under existing conditions. If the satisfactory in the present market should succeed in removing the embargo all well and good. Canada will reap the benefit. In the meantime, the best thing to do is wait for its removal, but make the best of our opportunities under present conditions.

HORSE MARKET MORE ACTIVE

There are signs of more activity in the horse market. The demand is increasing, especially for drafters and general work horses. The quality of horses offering is improving and some choice goods are available in larger numbers.

No place is this condition shown more clearly than at the new Horse Exchange Union Stock Yards at Toronto Junction. This exchange was opened for business on January 27th and has since had a remarkable success. Business has gone right from the start. The manager, Mr. J. Herbert Smith, looks upon the business exceedingly bright for a prosperous horse trade. The demand for good horses is increasing every day and the quality of the offering has greatly improved and many high-priced animals are offering. On Wednesday last 60 odd horses were sold. The average price for a pair of matched 20 farm horses at an average price of \$115. He paid as high as \$215 for a specially well bred pair.

One team of registered draft mares of superior quality sold for \$355, or considerably less than they are worth for breeding purposes.

The following is the range of prices for the different classes: drafters, \$146 to \$225; express horses, \$120 to \$144; drivers, \$110 to \$137.50; farm blocks, \$120 to \$150. These quotations are for guaranteed sound horses or no sale. Specially sound work horses sold at from \$75.00 to \$110 each.

GENERAL MARKETS

PETERBORO FARMERS' MARKET.

Peterboro, March 7.—The receipts of butter and eggs were again large. The latter in particular were very numerous. Poultry was very scarce, also hay and straw. A large quantity of pork was offered. The following prices were received: EGGS—New laid sold from 50c to 52c a doz., with the bulk at 50c. BUTTER—Price ranged from 25c to 26c a lb., the bulk going at 27c. APPLES—50c to 60c a bu., and 75c to 90c a cask. BEEF—Hindquarters, 7 to 7 1/2c a lb.; fore 6 1/2 to 6c. PORK—Hind quarters, 6c a lb.; fore, 5c; whole hogs, from 10c to 12c lb., \$5.50 each; weighing from 75 to 100 lbs. each. LARD AND STRAW—Hay, 65c to 81c a ton; straw, 85 to 87 a ton.

MONTREAL HOG MARKET.

Montreal, Monday, March 9.—The market for live hogs was very active and strong from a week ago. There has been no new development and the market is still on an easy tendency owing to the fairly large receipts and advice from the other side, and the price of hogs is still going so long as present conditions continue. Prices for last week's offerings ranged from \$5.75 to \$5.50 a 100 lbs. for selected

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Dressed hogs are steady and there is a fair trade passing at current rates. Fresh killed abattoir stock is quoted at \$7.25 to \$8.25 a 100 lbs. and country dressed at \$7.25 to \$7.50 a 100 lbs.

TORONTO HOG PRICES
The Wm. Davison Company, Toronto, quote the following prices for live hogs: \$4.75 f.o.b. at country points; \$5 at the Western cattle market, fed and watered; and \$5.20 a cwt., weighed off cars the following morning at their siding. They report deliveries as light and that they have been running during the week at half time.

PETERBORO HOG MARKET
Peterboro, March 7.—The slump in the market is still being felt and deliveries of hogs are fairly large. The immense quantity of Danish and American hogs being shipped to Great Britain affects the export market considerably.
The Geo. Matthews Co., Peterboro, quote the following prices for country points: \$4.75 a cwt., delivered, \$5.15.

MONTREAL EXPORT BUTTER AND CHEESE TRADE

Montreal, Monday, March 5.—The stock of cheese in store in Montreal continues to dribble out and there was a fairly heavy movement last week, considerably reducing the available supply. Another week or two should see us down to practically bare boards.

Stocks on the other side as pulled back at the end of the month indicate a steady reduction from the previous month, the total available in store, the other side amounting to about 100,000 boxes. The quantity here at present a week ago amounts to about 50,000 boxes, and there are about 20,000 boxes afloat, so that the total quantity of cheese available before the advent of new goods totals about 250,000 boxes. This is by no means an excess quantity, and there is every indication of there being a shortage of cheese before new goods will be available in any quantity.

Prices continued unchanged at from 15 1/2c to 15 1/4c a lb., according to quality and section.

Butter.
The butter market is strong owing to the great scarcity of it in article. The stock of full grade held here is being rapidly reduced and dealers generally are looking for a pinch before the factoring next month. There is practically no butter in the country districts and they are coming to Montreal now for their supplies with the result that prices are being put up almost daily. The course of prices received a temporary set-back with the sale of about 2,000 packages of Western butter at prices ranging from 30c to 32c a lb.

Fines Townships creamery, however, is firmly held and commands from 30c to 32c a lb. Dairy butter is very scarce and sells freely at 29c to 30c.

COUNTRY NOTES AND PRICES

HASTINGS COUNTY
Ridney Crossing.—There is four or five feet of snow on the ground and if abattoirs are ever seen again, they should be in good condition. The weather is moderately cold. The roads are badly drifted and will be impassable for some little time, when they will be fit to go. Cattle are looking fine but feed is getting rather scarce under the new winter and farmers will have to feed carefully to get through. Most farmers are confident, however, that they can manage it. I congratulate you on the great improvement in your paper. It is being talked about a lot. Fresh eggs, 30c a doz.; creamery butter 25c to 30c a lb.; rolls, 25c to 30c; tub, 25c to 30c; prints, 30c; colored cheese, 15 1/2c; white 12c; turnip 50c to 60c a bu.; potatoes 80c to \$1 a bag; hogs 7c to 7 1/2c a lb. d.w.; lamb, 12c to 15c; mutton, 8c to 9c; beef, 5c to 6c; veal, 8c to 9c; chickens, 25c to 30c; hens, 10c to 12c; eggs, 15c; Timothy hay, \$22 to \$24 a ton; clover, \$18 to \$20; alfalfa, \$20 to \$22; bran, \$22; shorts, \$23 to \$24; lucerne, \$25; corn, \$28; peas, 80c; Milch cows, \$35 to \$40 each; springers, \$30 to \$35; calves, \$7 to \$8; beef, 4c to 5c a lb.; stochers 3 1/2c to 4c; export, 5c to 6c; chickens, 45c to 5c; hens, 5c; lambs 10c to 12c; veal, 6c to 7c; ewes, 7c to 8c; hickory, 80c to \$1.50 a pr.; pigs, 60c to \$1.50.—J. K.

STORMONT COUNTY
Newington.—Hogs, 7 1/2c to 8c a lb. d.w.; beef, 5c to 7c; chickens, 14 to 15c; hens, 11 to 15c; hided, 6c; Springers, \$25 to \$35 each; calves, \$5 to \$10; beef, 5c to 11c a lb. l.w.; export, 5c to 5 1/2c; hogs, 4 1/2c; Potatoes, \$17 to \$20 a ton; fresh eggs, 25c to 35c a doz.; creamery butter, 25c to 30c a lb.; rolls, 25c to 30c; prints, 25c to 30c; Timothy hay, \$16 to \$20 a ton; clover, \$14 to \$16; baled straw, \$14; loose, \$14; bran, \$2; shorts, \$22 a ton; meal, 35c; oats, 6c a bu.; corn, 7 1/2c.—L.F.

OXFORD COUNTY
Norwich.—The ground is covered heavily with snow and winter wheat and clover should come through in good condition. The bottom of the hog market has completely fallen out, only \$4.75 a cwt. being laid last week. A number were shipped at that price. There will be plenty of rough feed for stock. Mixed hay, \$12 to \$13 a ton; bran, \$24; shorts, \$25; linseed meal, \$34 from wheat meal; \$24; gluten meal, \$23, at the factory; oats, \$20 a bu.; barley, 75c; wheat, 90c; peas, 90c; fresh corn, \$25 a doz.; creamery butter, 25c a lb.; rolls 25c; potatoes, 75c a bag; milch cows, \$23 to \$25; springers, \$15 to \$25; hogs, \$4.75 a cwt. l.w.—J. McK.

NORFOLK COUNTY
Courland.—Weather is fine. There is plenty of snow and first-class sleighing which is being made good use of. Farmers are getting very badly disgusted with the hog market after they have sold their hogs they find that they could have sold their feed for more and they would have been relieved of all the trouble of feeding. Potatoes, 55c to 60c a bu.; 75c to 90c a bag; Milch cows, \$23 to \$45 each; springers, \$25 to \$40; hogs, \$4.75 a cwt. l.w.; calf skins, 9c to 10c a lb.; hies, 6c to 6c; Creamery butter, 25c to 30c a lb.; rolls, 25c; tub, 25c; prints, 25c; fresh eggs, 25c a doz.; Timothy hay, \$13 a ton; clover, \$11; mixed, \$12; trace \$13 shorts, \$12; oats, 7 1/2c a bu.; barley, 55c; corn, 60c to 65c; peas, 80c to 82c.—W. A. B.

KENT COUNTY
Chatham.—The weather has been very cold with light falls of snow. Sleighing is very good. Timothy hay, \$10 a ton; clover, \$12, mixed, \$11, bran, \$12; shorts, \$22, oats, 4c a bu.; loose straw, \$3.50 a load; fresh eggs, 25c a doz.; creamery butter, 30c a lb.; rolls, 25c; tub, 25c; prints, 25c; colored cheese, 15c; potatoes, 60c a bu.; turnip, 50c; hogs, 7c to 8c; calves, \$5 to \$10; chickens 40c a pr.; hens 5c; veal, 6c to 7c a lb.; corn, chickens, 7c to 8c; hens, 6c.—W. G. L.

Gossip
Mr. James Bowman, Elm Park Farm, Guelph, writes: "I have recently sold a strong well-grown Aberdeen Angus bull to Mr. Blair Kitchin, near Lovell, to cross on his high grade cows, and another to Mr. J. C. Ready, same purpose. These are both O.A.C. men who intend to make a mark in practical work on their farms. Mr. Kitchin proved his ability as a farmer at Dentonia Park Farm where he was manager for some years. I have also sold a good stock bull to Mr. Thos. B. Broadfoot, Fergus, Elm Park Ringlander, 6th out of E. P. Belle 2nd, dem of Mr. Lowe's cham pion bull, and sired by Lord Val 2nd.

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Prompt attention given to the collection of Farmers' Sales Notes.

Here is a low down thick bull and resembles his sire, Lord Val 2nd. I have had fairly good sales for Suffolk sheep this season, having sold to parties in Ontario, Alberta, Iowa, Indiana, Illinois, New York and Virginia, and have had very satisfactory reports from all when their stock ar-

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For Pumping, Cream Separators, Gas, FEEL TRIAL
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Amatite Roofing
Well, I'm Glad That Roof Worry Is Over!

NO painting—No repairing.
That's the story of Amatite.
—It means a tight roof—an economical roof—a durable roof.
Do not confuse Amatite roofing with the ordinary smooth surfaced kind. It is in a class by itself.
Many-so-called "ready roofings" are not "ready" until they get a special coat of paint, which you pay for extra,—if not at once, surely a year or two after they are laid.
Amatite needs no attention of this kind. When you have finished nailing it on your roof it is a complete roof which needs no painting.
It has a top surface of real mineral matter—Amatite—which not only makes painting unnecessary but resists storms and snow better than stork or coating of any kind.
—It is an excellent fire retardant.
Another source of satisfaction in buying Amatite is that it can be put on by anyone. No special tools or skilled labor required. Nails and liquid cement for laps are furnished free.
You save both money and labor when you use Amatite.
When the roofing question comes up, ask yourself—Are the old methods good enough for me or do I want something new and better?
If you do this you will surely buy Amatite. No progressive man would do otherwise.
FREE SAMPLE.
We should like to send you a Free Sample of Amatite and Illustrated Booklet telling all about it. Write to-day to our nearest office and you will learn something to your advantage.

THE PATERSON MANUFACTURING CO., Ltd.,
CANADIAN AGENTS
TORONTO. MONTREAL. WINNIPEG.

1928 PROFITS
Can be increased by getting a **CANADIAN AIRMOTOR**
It is surprising how much hard work it will do in a year—**SAVE HOURS OF TIME**
No fuel, nothing but a little oil and ordinary care.
SEND FOR OUR CATALOGUE, No. 48
It will be of great interest to farmers.
Ontario Wind Engine & Pump Co., Limited.
TORONTO, ONT.

Free Veterinary Book

Be your own horse doctor. Book enables you to cure all the common ailments, curbs, splint, spavin, lameness, etc. Prepared by the makers of

Tuttle's Elixir



The world's greatest horse remedy. 8100 reward for failure to cure above diseases where cure is possible. Write for the book. Price 25c.

WEST MICHIGAN FARMS OCEANA, MICH. ... Potatoes, Pinks, Peas, etc. ...

Idea Fence Made to Last

Any farmer who knows fence knows it is his kind as soon as he sees it.

When he wants particulars, he gets them straight. He finds ideal wires are all No. 9 wires, the heaviest that are used for fencing in Canada.

He finds they are all of hard steel. Just about twice the strength that you get in soft wires.

There's no getting away from it. It's the best thing of the kind used on any fence—grips the wires at five bearing points.

Don't you want that kind of a fence? It is the Standard railroad fence of Canada.

THE McCREGOR BANWELL FENCE CO., Ltd. Dept. R. Walkerville, Ont. THE IDEAL FENCE CO., Ltd. Dept. R. Winnipeg, Man.

NOTE THE LOCK

I CANNOT SLEEP

ried, except in Ontario, where the railway for four days to take stock about 150 miles.

"Buena Vista Farms," H. L. Trullinger, Manager, Pulaski, Virginia, Feb. 17, 1908. James Bosman Guelph, Dear Sir,

The four Suffolks ordered by Mr. Stearns arrived all O.K. and I am very much pleased with them as am with all well bred Suffolks. I have had a good deal of experience with Suffolks, Oxford, Hampshire, Dorset, Cotswold, Southdown, and Shropshire, and I unhesitatingly declare the Suffolk a superior sheep to any of the above-named breeds.

Very truly yours, H. L. TRULLINGER.

THE GUELPH SHORTHORN SALE

The fifth annual sale of Shorthorns held at Guelph on March 4th, under the auspices of the Guelph Stock Club and the Provincial Live Stock Associations was very well attended.

There were 40 head contributed by 28 different parties throughout Western Ontario (largely from Wellington Co.); prices realized ranging from \$40 to \$125 each.

Over 20 head of Scotch Shorthorns of nice cantlers were sold to the highest bidder at the Union Stock Yards, Toronto Junction, on Friday, March 6th, by Carey M. Jones, Chicago, Ill., assisted by F. W. Silverthorn, Guelph.

KIDD'S STABLES DESTROYED The large stable of Mr. W. C. Kidd of Lidwell, Ont. were totally destroyed by fire last Thursday morning.

NOTE The Shorthorn sale advertised in The Canadian Dairyman and Farming World by T. J. Pearson & Co. and P. A. Gardner-Brittania has been postponed.

R. B. Teewater, Ont., writes—Regarding the complaint of F. E. B., in the Farming World of Feb. 1, re rooting hogs, the cause is neither playfulness nor hunger, but too close confinement.

FOR SALE AND WANT ADVERTISING

TWO CENTS A WEEK READ BY 15,000 PEOPLE

THIS DEPARTMENT is one of the most valuable in the Paper. At a cost of only 20 cents a week you can advertise anything you wish to buy or sell, or situations wanted or vacant.

THE ADDRESS must be counted as part of the advertisement, and each initial or a number counts as one word.

NO BLACK-FACED TYPE or display of any kind will be allowed under this head, thus making a small advertisement as noticeable as a large one.

FOR SALE—First class creamery, well equipped, in good dairying locality.

FOR SALE—Two DeLaval turbine separators 3,500 lbs capacity, also one Farrington Duplex Pasteurizer, 1,600 lbs capacity per hour.

FOR SALE—65 acres, 11 miles from the city of Bradford, brick two story house, frame barn, cow shed, chicken house, corn crib, pig pen, orchard, 120 cherry trees, 25 apple trees.

FOR SALE—150 acre farm, including buildings, if sold at once, 1000 lbs Clover Crusher, corn shredder, 10 inch maple leaf chopper.

HOLSTEIN BULL FOR SALE four years old, also two yearling bulls and bull calves, two cows. Write for prices and breeding—SAMUEL LEMMON, Lyndon, Ont.

WANTED—Man with one or two years' experience in cheese factories. Apply, KU'SSEE, GUELPH, or BRIMMINGHAM, Ont.

WANTED—Cheesemaker, with one or two years' experience. Apply, Russell Grievie, Brownville, Ont.

WANTED—Cheese and buttermaker for 1908. Give educational standing, names of recent employers and wages expected from March 15 to November 15. Apply promptly to F. J. SLIGHTHOLM, Strathroy, Ont.

CHEESEMAKER WANTED—For the Holmesville Cheese and Butter Co. State experience and salary. Send applications to NELSON W. TREWARTH, Secretary, Holmesville, Ont.



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

Well DRILLING & PROSPECTING MACHINES

Fastest drillers known. Great money earners. LOOMIS MACHINE CO., TIFFIN, O.

VETERINARY COURSE AT HOME

\$1200 per year Veterinary Course at home during spare time; taught in simplest English. Diplomas granted; positions obtained for successful students; cost within reach of all satisfaction guaranteed; particulars free. Ontario Veterinary Correspondence School, London, Canada.

CREAM OF ANY THICKNESS AND MILK SKIMMED CLEANLY advertisement with illustration of a woman milking a cow.

J.S. CREAM SEPARATOR advertisement with illustration of the separator machine and a woman milking a cow.

Vermont Farm Machine Co. BELLOWS FALLS, VT., U.S.A. advertisement with illustration of a large cylindrical machine.

THE PROOF OF IT'S VALUE IS IN THE BUTTER

BUY GASOLINE ENGINES UNTIL YOU INVESTIGATE 'THE MASTER WORKMAN'

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

DISPERSION SALE
— OF —
Pure Bred Scotch
SHORTHORN CATTLE.

The undersigned has received instructions from

MR. N. A. STEEN & SON

to sell by Public Auction at "White Hall Farm," Lot 7, Con. 2,
West, Toronto Township, on

Wednesday, March 18th, 1908,

at 1 o'clock sharp, the following :

10 pure bred cows, in calf or calf at side; 3 heifers in calf or
calf at side; 12 heifers, not bred; 10 bulls from 8 to 22 months old.

Everything will be sold.

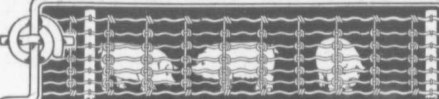
These cattle are choicely bred and are pure breeders. I have
been using the best bulls at Valley Home Herd for the past ten
years, viz. British Statesman, Trout Creek Banff, Royal Scot,
Royal Diamond and, and Scotland's Fame.

TERMS—For Shorthorns, cash or 7 mos. credit on bankable
paper with 5 per cent. per annum interest.

Conveyances will meet all morning trains east and west at
Streetsville Jct., also from the north at Meadowdale St.

Catalogue on application to N. A. STEEN, Meadowdale.

JOHN SMITH } Auctioneers.
W. A. RUSSELL }



DEPENDABLE FENCING
We know the Canadian farmer needs and we can furnish a Wire Fence that will
give absolute satisfaction. We believe in square dealing and we stand right back
of our goods with an absolute guarantee of its honest and reliable quality.

THE PEERLESS FENCE
Is made by experienced fence men from all No. 9 hard steel wire, heavily
galvanized, having the famous Peewee Lock. It tensile strength, rigidity
and elasticity is unparalleled. No stock can break thru it and once well erected
it is practically indestructible. Send for folder. "How to erect a good fence."
THE HARWELL HOBIE WIRE FENCE CO. LTD., Dept. F, Hamilton, Ont. Winnipeg, Man.

**Potash is Essential
For All Crops**

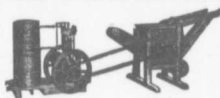
This most important Plant Food may now be
obtained of all leading fertilizer dealers in the
highly concentrated forms of **Muriate of Potash**
and **Sulphate of Potash**.

The demand for these Fertilizers is now so great
that it is necessary to order early to insure getting
supplies for this season.

A Bulletin containing the tabulated results of
Fertilizer experiments, conducted throughout the
Dominion during 1907, has just been issued and
may be obtained gratis on application to:—

**The Dominion Agricultural
Offices of the Potash Syndicate**
1102-1105 Temple Building, TORONTO, ONT.

**HAVE
a Fairbanks**



Morse GASOLINE ENGINE ON THE FARM.
There are 70,000 satisfied users, and the up-to-
date farmer finds them invaluable. With this
well constructed, reliable machine you will do nearly all your farm
work cheaply and easily. You can depend on them working when
you want them to. You cannot get anything better to furnish
power for pumping, threshing, feed grinding, churning or filling
the silo. Write to-day on coupon below for catalogue and copies
of testimonials.

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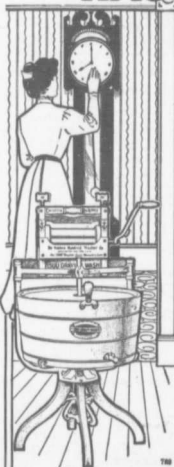
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444 St. James Street, Montreal, Que.

Please send catalogue and copies of testimonials.

Name.....

Address.....

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HAS STOPPED**



And what a surprise it will be to discover
that the clock is going and you're actually got
your washing all done at 8 o'clock in the morning.
That's the certain result if you use a

"1900 GRAVITY" WASHER
the greatest time and labor saving machine yet
invented. It will wash the heaviest clothing,
blankets or rugs with the same ease and rapidity
as it does the finest lingerie or curtains.

**A Child Can Run The
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and wash a tubful of clothes in six minutes,
doing it better than a strong woman would by
hand in an hour or more. Get a "1900 Gravity"
Washer and you'll be able to do your washing
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EXCEPTIONAL FREE TRIAL OFFER

Our faith in the machine is so great that
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without any advance payment or deposit what-
soever. We pay all the freight ourselves. You
may wash with it for 30 days and then if it
doesn't do all we claim for it, ship it back to us
at our expense. Note, we are the only
manufacturers of washing machines on the
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Write today for our handsome booklet with full line
illustrations showing the methods of washing in different
countries of the world and our machines in national
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LOOK FOR THIS LABEL ON THE TUB.
Beware of cheap imitations.



Address me personally F.W.B. BACH Manager
The 1900 WASHER CO., 356 Yonge St., TORONTO, CAN.

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