

The Sugar Bush, a Great Natural Resource

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ONE DOLLAR A YEAR.

# The CANADIAN DAIRYMAN AND FARMING WORLD

PETERBORO, ONT.

APRIL 25, 1908.

(E)  
Kondalik, J. A.  
(Chief Dairy Expert)



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### Toronto Junction Best Place for Winter Fair

Ed. The Canadian Dairyman and Farming World.—Were the winter Fair moved from Guelph to Toronto Junction I think that the accommodation would be improved. The buildings at Toronto Junction are ahead of those at Guelph. As to loading and unloading stock, the Junction has both the G.T.R. and the C.P.R. at hand, while at Guelph the G. T. R. does not give the accommodation to exhibitors it should.

I favor Toronto Junction as the place for the Winter Fair. It could take in all classes of live stock and seed grain. A show located there could be made equal to Chicago, if not better.

D. DeCoursey.

Bornholm, Ont.

### FAVORS TORONTO JUNCTION

Editor, The Dairyman and Farming World.—I have always been surprised to see such a show as the Winter Fair kept in the background as it is at Guelph, because of the improper accommodation at that point. I heartily endorse what Mr. Peter White said at the Union Stock Yards' banquet recently, viz.: "If Canada wants to come to the front, she must display her best goods in her front window."

Toronto Junction is the place for the winter fair, have thought so for years. I hope the day is not far distant when we shall see it there.—A. A. Colwill, Durham Co., Ont.

### Tuberculosis Among Cows at Winnipeg

Investigations by authorities and interested persons show that infected meat and milk have been sold in Winnipeg almost indiscriminately, and that about 70 per cent. of the dairy cows are afflicted with tuberculosis. No official inspection by a qualified veterinarian has been made for 10 years. The condition of the cattle is so bad that abattoir firms have refused to buy dairy cattle for slaughtering purposes. Prompt action will be taken to remedy the present state of affairs, and the tuberculin test will be administered to dairy cows at once. Meat coming from the outside will also be closely inspected.

The cattle of the west, particularly on the ranges, fortunately are peculiarly free from tuberculosis, and it seems to have attacked only the confined herds.

### Farm Help Supply

The demand for farm help this spring is likely to be as keen as ever. It has set in already. The immigration agencies are being besieged with applications from farmers. A few years ago the demand for help did not set in until about seeding time. The scarcity of suitable help has changed this, and now hiring begins a month or two earlier.

The Dominion Department of Immigration has charge of the distribution of farm help in Ontario, outside of what may be done by the Salvation Army and other agencies. There are 170 sub-agents distributed through all the leading towns and cities of Ontario. The Toronto agency, which is in charge of Mr. Stewart, is largely a forwarding office, from which men are sent to the various districts. This agency places a number of men in the vicinity of Toronto. Since Jan. 15, over 900 have been placed on farms, chiefly from the Toronto unemployed. Mr. Stewart has 200 applications for men on hand, and for 50 servants.

It is the aim of the Department to bring the local agent in touch with

the booking agents in Great Britain. Immigrants are booked direct to the local agent, and within easy reach of the farms where help is wanted. The Dominion Department does not pay the railway fare of the immigrants, as was done by the Ontario Department. A ticket at two cents a mile is secured, but the immigrant has to pay this, or the farmer, who keeps it out of his wages.

There are some advantages in this. The immigrant, when leaving England, will try and get booked direct to the nearest point where work is obtainable. The local agent usually has pieces for the men on arrival, so there is no delay or extra expense in getting to work. A plan, which is being largely followed, and which is working well is to have men placed before leaving the old country. The booking agent sends in advance a paper, describing the man, and when he will arrive. The immigrant has a duplicate of this, which he presents to the agent on arrival. Formerly the bulk of the immigrants were booked direct to Toronto. Here many of them remained, and refused to go on farms, eventually becoming subjects for charity during the winter.

Compelling each one to pay his own fare to his destination, has the effect of procuring a better class of help. The fellow who has enough, or who can earn enough to pay his way, is more likely to stay at work, and to give better service, than the one who gets everything for nothing. The aim is to procure the best class of men obtainable.

### WAGES BEING PAID

The wages paid are about \$10 a month and board for inexperienced, and \$12 to \$15 a month and board for partially experienced men. Men having farm experience in Great Britain get about \$20 a month and board and those with experience on Canadian farms from \$23 to \$26 a month with board. The bulk of the help that has come to this country from the old land is inexperienced. It is difficult to get experienced men. The true situation in this way has not set in this season, but it will begin very shortly.

A great many married men with families come to Canada. These are hard to place, as comparatively few farmers have a second house for them to live in. If there were more extra houses, reliable men could be secured who would remain longer than the single men, and would not break into the family circle, as the latter do. Many farmers are adopting the extra house plan, and are finding it successful.

### Leave for Europe

President Creelman, and Prof. Harcourt, of the Ontario Agricultural College, leave on March 25th, for Europe, to investigate agricultural methods prevailing on the Continent, and in Great Britain. President Creelman will spend some time in Italy, and France, looking into some recent valuable agricultural experimental work that is being conducted there. Prof. Harcourt will be absent a year, and will make a special study of the methods followed in agricultural chemistry, in dealing with the adulteration of food products. In Germany, where he will spend most of his time, his time will be devoted to a study of the chemistry of foods.

The Winnipeg Industrial at its coming exhibition, will hold a competition in light agricultural motors, the first ever held in America. Gold, silver and bronze medals will be given for the best motor for general farm purposes. This should prove of interest to the big farmers of the west.

# The CANADIAN DAIRYMAN AND FARMING WORLD

AGRICULTURE, THE KEYSTONE OF CANADIAN PROSPERITY

VOL. XXVIII.

FOR WEEK ENDING MARCH 25, 1908

NO. 10

## MAPLE SUGAR MAKING ON THE FARM

**This industry is One of Growing Importance. The Market Requires a High Grade of the Finished Product, which Can be Obtained Only by the Use of Modern Methods and Appliances**

**A**N INDUSTRY that is rapidly growing into prominence in Canada, is the production of maple syrup and sugar. This is by no means a new industry. Its development has been hampered, however, by the placing upon the market of adulterated goods. These are put up in attractive packages, and find easy access into the homes of unsuspecting consumers. As a consequence, the consumer is defrauded, the market for pure goods injured, and the producers of pure goods discouraged. Fortunately, this abuse is being overcome, largely through the better enforcement of that section of the Adulteration Act dealing with goods, such as maple syrup and sugar. Producers of pure goods, therefore, are receiving more encouragement than was accorded them formerly, and the industry is benefitting thereby.

The maple sugar industry is dependent largely upon weather conditions. When these are favorable, a larger run of sap is assured, which, if properly handled, will result in as great a profit an acre as can be realized on any acre of the farm, provided the sugar bush is a good one.

Again, sugar-making comes at a time when other farm work is not pressing. The trees require practically no care, the sugar bush is essentially one of our great natural resources.

Unfavorable weather conditions, and the prevailing low market price of maple sugar products, militate somewhat against the industry, yet it has been proven that the equipping of a sugar bush with a modern outfit for making syrup and sugar, is a profitable investment.

The quality of product that the market demands is that having a delicate, clean, maple flavor, being in texture, and of a high grade. This grade is best produced in considerable quantities, and requires only adequate government protection to ensure its increased production. Again, an increased production of a guaranteed pure article, will be attended ultimately with an increased price.

### THE EQUIPMENT

The great essential in the production of a high-grade article of maple syrup is the possession of a

first-class equipment. A good description of a modern equipment is given in the Dominion Department bulletin B, on the manufacture of pure maple sugar and syrup. The following extracts from the bulletin are to the point: "Everything with which the sap comes in contact should be made of tin or metal. In the bush it is necessary to have a sap spout and sap bucket for each tree tapped; a team attached to a wooden sled, to draw the gathering tank around when collecting the sap, and two larger tin pails for transferring



GATHERING THE SAP

The process of gathering the sap in a sugar bush is here illustrated. In the foreground a man is seen emptying the sap from the sap bucket into a gathering pail. Thence it is carried to the gathering tank and emptied as shown in the background.

the sap from the trees to the gathering tank. At the sugar house it is essential to have a large sap holder an iron or steel arch, with a modern evaporator in which the sap can be boiled into syrup, a skimmer, two or three syrup cans, and a small iron or steel arch, with a heavy tin pan attached, for boiling the syrup into sugar. This is commonly called "sugaring."

### THE SUGAR HOUSE

The sugar house should be located on a side hill, so that the gathering tank can be driven to an elevation at the side, high enough for the sap to run by gravitation from the gathering tank to the sap-holder, and hence to the evaporators. If the location will not permit of this, an artificial mound will meet requirements. A drain should be dug under the sugar house to carry off

rain water and water used in cleaning utensils. The size of the house will be regulated by the size of the sugar bush. It should be well lighted and ventilated. Suitable spouts and buckets should be provided for gathering the sap. These are described elsewhere in this issue.

### THE PROCESS

The first operation in the sugar bush, after having everything in readiness, is tapping. The time to tap is when indications point to warm, sunny days, following cold nights. Care must be taken not to tap before the sap will run, as it has a tendency to dry the sap fibres, and curtail the flow. Tap in a healthy spot, preferably a southern exposure. Remove the bark from the spot selected, and with a bit, or tapping spoon, bore a hole slightly upwards, and about two inches deep, and from  $\frac{1}{4}$  to  $\frac{1}{2}$  inches in diameter. The hole should be cleaned out and the spout inserted, to which a bucket is attached to catch the sap.

The sap should be collected when there is about a gallon in the buckets, as it rapidly deteriorates in color after leaving the tree. It should be strained several times during the process of handling, and kept free from impurities and foreign matter. The sap holder should be kept as cool as possible as heat is detrimental to the quality of the sap.

Boiling should be commenced as soon as there is enough sap to keep the evaporator in operation. Boil rapidly, with the sap as shallow as possible in the evaporator, and remove the skimming when ever necessary. As the syrup is drawn from the evaporator, pour through a filter into a small can to cool, and when cool pour into the setting cans.

At the conclusion of each day's boiling the evaporator should be removed from the arch, and thoroughly cleaned. A convenient apparatus for removing the evaporator, is a set of pulleys attached to an over-head track, crosswise the arch.

### SYRUP

Syrup should be of uniform grade, of a transparent amber color, and free from all sediment. An imperial gallon, properly strained, and allowed to settle, should weigh when cold, 13 lbs. 2 ozs. If it is heavier or thicker it will easily grain; if lighter or thinner it may sour. The former is the lesser evil.

### SUGAR

When the syrup has properly settled it is poured off through a strainer, into a "sugaring off" can. It is then boiled until it reaches a granu-

lated state, hard enough to ease into sugar. This state can be ascertained by placing a thermometer in the syrup when it commences to boil, and leaving it there until it registers 242 degrees, F., or 245 degrees F. Another way is by dropping some of the boiling syrup into a cup of cold water, or on to snow, when, if it forms itself into a lump, it has boiled sufficiently. Otherwise it requires more boiling. When the granulated state has been reached, the pan of hot sugar is removed from the stove, and cooled until it begins to thicken, when it is placed into small pans for caking. If soft or tub sugar is wanted it should not be boiled so much. An imperial gallon of syrup will make about nine pounds of sugar.

The comparative profits resulting from the manufacture of sugar or syrup, depend largely upon market conditions. The producer must decide for himself, which will be the more profitable for him to make.

### Equipment for Sugar Making

In the manufacture of high-grade maple syrup and sugar, much depends upon the equipment used. The more care there is exercised in handling the sap, the better will be the article produced.



Sap is easily discolored hence the material out of which utensils employed in handling it are made, is an important consideration. Any substance that will discolor the sap, and thus deteriorate it in point of market value, should be discarded.

Galvanized iron buckets come into this class, also lead covered tin buckets, and wooden buckets to a certain extent.

The accompanying illustration shows a charcoal tin bucket, the kind generally used. Covers should be used on all buckets to exclude dirt, leaves, etc. As heat tends to sour the sap, it is well to have the cover ventilated.

The gathering tank is generally made of heavy tin, supported by an iron frame, and with a capacity of 75 to 100 gallons. The top should be concave, with double removable strainers in the centre. The sap holder is very similar in construction. One with a capacity of 300 gallons is a very convenient size for a bush of 500 to 800 trees.

An evaporator, 3 x 10, is considered large enough to meet the requirements of a 500-tree bush. This is made of a heavy grade of tin plate, and so constructed, with a corrugated bottom, as to form compartments. A regulator fitted to the pipe through which the sap flows from the sap holder to the evaporator, should be attached to the evaporator, for the purpose of automatically governing the flow of cold sap to the evaporator.

"We have enjoyed free delivery since May last, and would find it very inconvenient to do without it. The people on this route are not the only ones benefited, as those living near cross-roads have established boxes for their mail, while others have their mail come in care of someone living on the route. I think it justifies the expense, and we are well served in every way."

W. H. Knight.

Tipton, Mich.

## THE NUMBER OF FAMILIES ON RURAL DELIVERY ROUTES

The Seventh of a Series of Articles Written by an Editorial Representative of this Paper, who Recently Visited the United States, with the Object of Studying the Free Rural Mail Delivery System.

IN writing a series of articles of this kind, occasional repetitions are more or less unavoidable. In my last article reference was made to the statement of a Canadian post office official, who claimed that in the United States the post office department has been unable to live up to its rule that where a route is 20 to 25 miles, it should serve 100 families. This official claimed that the department had been forced frequently to establish routes where there were only 90 families, and in some cases where there were less than 80 families on a route. This was given as one of the reasons for the great cost of the service in the United States.

While in Washington I made a special effort to obtain information on this point. When asked if the charge was true, Mr. W. R. Spilman, superintendent of the Division of Free Postal Delivery, replied: "We do not require that there must be at least 100 families on a route 20 to 25 miles in length. All we require is that on a standard route, 24 miles or more in length, there must be a possible patronage of at least 100 families, and that three-fourths of the possible patrons shall be required to signify their intention to accept the service, and to provide boxes conforming to the department's requirements before the service is started. When the service was first started, many routes were established without proper investigation. We were deceived with some, and later found that they had even less than 70 families. Of late years we have been more exacting, and the average number of families on a route has been increased. On a considerable proportion of the routes, the number of families exceeds 100. I do not know what the average number of the routes is now."

"It often happens," continued Mr. Spilman, "that when a route is first started there are some people who oppose the inception of the service. Some of them may be friends of the local postmaster. In such cases they generally are afraid that if a rural delivery route is established the post office will be discontinued. In some cases the postmasters canvass against the starting of a route. Other people oppose rural delivery because they do not want to be put to the expense of providing a letter box. Small country merchants sometimes stir up opposition to the service through fear that they may lose trade if the farmers do not drive into town every day or so for their mail."

"This opposition, however, almost invariably dies out soon. Once a rural carrier starts driving down the road every day, at about the same hour, the people soon begin to look for his coming. Those farmers, who have not provided themselves with boxes, see their neighbors getting their mail regularly every morning, and it is generally not long before they fall into line and accept the service with the rest. Thus, if 75 families on a standard route accept the service, as we now require that they shall before we begin it, it is not long before the number has increased to 85, 90, or 100."

### ANOTHER CHECK

"We have another check on the routes beside the number of families," continued Mr. Spilman. "We expect that on each route there shall be an average of 3,000 pieces of mail handled during a month. The actual average per route for the whole of the United States, is over 4,000. When we find that the average on a route is falling below 3,000 pieces a month, we investigate the circumstances. If the case warrants, we have the route re-visited by one of our inspectors. Some routes, with 200 families, average less than 3,000 pieces of mail a month."

"Where the amount of mail being handled does not seem to warrant the service being continued, we notify the patrons along the route that unless more mail is handled, the service will be discontinued. Generally this is all that is required to bring about the needed improvement. The farmers along the route set to work and canvass any of their neighbors who are not taking the service, and try and induce them to accept



W. R. SPILMAN, Washington, D. C.

Mr. Spilman is superintendent of the Division of rural free delivery for the United States. When our representative was in Washington, Mr. Spilman was extremely obliging and courteous. He very kindly gave up over a day of his valuable time to answering the thousand and one questions about rural free delivery that our representative asked him. Part of the interview with Mr. Spilman is published in this issue. Other information that he furnished will be given later. Mr. Spilman states emphatically that free rural delivery in the United States has proved a success, and that the government has been justified in introducing the service.

It. In some cases the farmers subscribe for daily and farm papers so that the amount of mail handled on the route may be increased. Others who may be getting some of their mail through a box, at a post office, arrange to have it all handled by the carrier."

### WHAT IS DONE

"Do you," was asked, "actually cut off the service, if the amount of mail handled, does not equal the standard?"

"Yes," replied Mr. Spilman. "In some cases the service is reduced to a tri-weekly basis, and in others the former post office service is continued. In all such cases we make it a point to see that the amended service is equally as good as the patrons along the route had before the service was established."

The day following the one upon which he made the foregoing remarks, Mr. Spilman showed me a letter that he had just received. The writer stated that as a result of action that had been taken by the farmers in his vicinity, the amount of mail being handled on his route had been increased to equal the requirements set by the department. The hope was expressed that the route would not, therefore, be discontinued.

### SOME INTERESTING FIGURES

Mr. Spilman was asked if the Post Office Department had any data showing the average number of families on each route. He replied that no statistics, giving that information had been prepared for several years. The latest information was contained in a table published in the

annual report of the Fourth Assistant Postmaster General for 1903. Although the table referred to by Mr. Spilman is somewhat old, the information it contains is interesting. It shows that at that time, five years ago, when the department was not nearly so strict in enforcing the requirements of the service as it is now, the average



THE BEGINNING OF THE SEASON

Note the long shaped pail, which is not easily blown from the tree

number of routes in 50 States and Territories, was 315. The average number of houses on each route was 127. The average population on each route was 585; the average number of boxes, 70; the average number of patrons, 381; and the average cost of each route, \$597.80. These figures show that the average number of families on the routes was high, although the number of boxes was small. The small number of boxes in proportion to the number of houses, shows that many families were not using the service.

In some cases the carriers allowed families to place a joint box at the side road. When the carrier passed, he placed the mail for the families living along the side road, in these boxes. The people living along the side road took turns in getting and distributing this mail to their neighbors. Some of the patrons used a "colony" box, made with compartments, to hold the mail of several families. This latter kind of a box, I was informed, had not proven very successful, as it generally was not long before the joint owners were quarrelling among themselves over its management.

#### EXPENSES OF THE SYSTEM

Those people who oppose the introduction of free rural delivery in Canada upon the ground of expense, should find the foregoing figures interesting. They show that the average expense of the service, based on the average number of houses on each route, was only a little over three dollars a year for each house. Based on the average number of patrons, the cost of the service was considerably less than two dollars a year a person. Based on the number of boxes, the cost was \$8.55 a year, or 70 cents a month. If there is taken into consideration the saving in the expense of the general post office service, that is effected by the cutting off of local post offices, and star routes, as well as the increased revenue that is derived from the increased amount of mail that is handled wherever the service is introduced, the cost of the service, as given, is still further reduced. Against this expense must be set, also, the increased value of the farms along the routes, the saving effected by the farmers through not having to go for their mail, and the great convenience of the service. Since 1903, the cost of service has increased considerably. So, however, has the number of families on each route. Looked at in the light of the foregoing figures, it will be seen that the "tremendous expense" of the service that we have heard so much about, is not such a serious matter as some people have tried to lead us to believe.—H. B. C.

#### Brood Sows Need Exercise

W. R. Bowman, Wellington, Co., Ont.

We endeavor to give our brood sows plenty of exercise. After the litter is taken off, we feed sparingly on grain and after the milk dries up, we feed liberally on roots and a little grain. Within a few weeks of farrowing we gradually slacken up the root ration, and add grain and bran, which puts on a good quality of flesh.

After the sow has farrowed feed sparingly for the first twenty-four hours and gradually increase the feed until she is consuming about all she can stand and continue the full ration until pigs are five weeks old, when they should be taught to eat, and not depend altogether on their dam. Then commence slackening off the feed of the sow until the end of six weeks, at which time her flow of milk will be greatly diminished and the pigs will be ready to wean.

#### Sugar Making on the Farm

Andrew Reichart, Iroquois, Ont.

The sugar making business is a profitable one, from the farmer's standpoint, if he abandons the old-time method, and equips his sugar bush with the latest improved machinery. There will be a profit in it when he makes a good article, for which there is quick sales and good price. The market is never over-stocked with the right class of goods. Sugar making comes in the time of year



THE EVAPORATOR ROOM

The only way to make a first-class article is by the use of modern apparatus

when there is very little other work to be done on the farm. The best results in tapping are obtained from a 7-16 inch bit. Bore one inch to one and one-quarter inches deep. I find a bore that size will give as much sap as a larger bore, at the same time it does not injure the tree as much. The smaller the bore the quicker the tree will heal up. I have used a good many different kinds of spouts, but prefer the No. 2 Grimm spout. I have found it to be the best. Last year I had 1100 Grimm spouts in use, and 500 of the old metal spouts. For nearly two weeks the trees that were tapped with the metal spouts did not run a drop of sap, while those tapped with the Grimm spouts were running well. This year I am using all No. 2 Grimm spouts. I use a 10 quart pail, made of good heavy tin. The pail should be made almost straight. It will then stay on the hooks much better. I am fully convinced that it will pay to use covers for the pails. It will pay also when the season is partially over to re-tap or ream out the holes.

The sap should be gathered once every day, twice a day if possible. It has been my experience that the quicker sap is put into syrup the better grade of goods it will make. I never allow it to stand over night, if it can be avoided.

I use a Champion evaporator, and prefer it to any I have ever used or seen. It is a shallow boiler, easy to operate, and the siphons and interchangeable pans do away, to a great extent, with

the lime and silica, and it is thus easier to keep clean. I use a Grimm gathering tank. Anyone who has any sap to gather should use one, as it strains the sap through a double sieve. This latter is one of the secrets in making first-class goods. Keep every particle of dirt out of the sap. Boil the sap as fast as it leaves the tree, and draw your syrup off every ten minutes. An evaporator that you cannot draw your syrup out of every ten minutes is no good. Long-continued boiling injures the vitality of the goods.

A word about results. Last season I tapped 1,700 trees, hired all my help, and when the season closed, I had \$400 to the good. I certainly think there is a profit in maple syrup, if a man keeps up with the times, and makes a good article. My syrup was all sold as fast as I could make it, and I had not enough to supply the demand. Maple sugar making is like everything else—unless a man does his best he will not make a success of anything. Before marketing, I put my name and guarantee of purity on every can that I send out. That shows that I am not ashamed of my goods, and the purchaser has confidence in them.

#### An Essential in Egg Production

Wilbur Bennett, Peterborough, Ont.

The American breeds of poultry, Rocks, Wyandottes, or Orpingtons, are probably the best as egg producers, especially for our climate. It is not so much to the breed as to the strain that one must look for success. Whatever breed one fancies, however, is the best for your purpose, but see that the stock has been bred for utility, and has a good laying record. When you have made your start, hatch the chicks in March or April, so that they will have matured and started laying before the cold weather sets in in the fall. If a pullet or hen does not start laying then, in most cases it will not do much till near spring.

The eggs from which the chicks are hatched must be from stock that is full of vitality. Otherwise we are up against it at the start. The chicks must be kept growing by liberal feeding right from the Incubator, and not allowed any setback.

It pays always to replace our stock each year, hatching more pullets than one needs to allow for vigorous culling for off-color, and lack of vitality, and selling the old stock as soon as their profitable laying season is over in the fall. Generally, about the first of October, we sell the last winter's layers. Then they bring us more as roasters than their cost of raising, which about balances that item of expense.



GATHERING THE SAP

Two pails may be hung on large trees to advantage

Old hens of the American class, if forced in order to get the eggs, as one can safely do with the pullets, are apt to get overfat, also it is sometimes a difficult matter to get them over the molt and down to business again before the cold weather.

### Manitoba Takes Drastic Action Against Weeds

The Manitoba Government is conducting an energetic campaign against noxious weeds. A bill to amend the noxious weed act of 1886, now before the Legislature, which is likely to become law, if properly enforced should clean that country from foul weeds, or at least bring them under control.

The main amendments to the Act of 1906, apply exclusively to the Canada Thistle Act, and the perennial sow thistle, though its provisions may be applied by the municipality by law to other weeds which are considered injurious to agriculture. The main provisions of the new legislation are: It shall be the duty of every occupant of land, or if the land be unoccupied, it shall be the duty of the owner, to cut down and destroy the noxious weeds growing on his land, including any to which the provisions herein contained, may be extended by bylaw of the municipality, in each and every year before the 31st day of July, or each other date prior thereto, as may be determined upon by the inspector having jurisdiction in the locality, to prevent the ripening and scattering of the seed of such noxious weeds.

Section four makes it compulsory upon the occupant or owner to cut and destroy weeds as above along the roadway, immediately adjoining his farm, to the extent of one-half the width of the roadway adjoining such land. In cases where land is held by Crown, or otherwise non-taxable, the council shall cause the weeds to be destroyed at the expense of the municipality.

Section five gives power to the municipality to cut and destroy weeds as defined above, on all vacant lands in the district.

Railway companies are compelled to carry out the provisions of the act on the right of way.

#### INSPECTORS PROVIDED FOR

Other sections provide for the ap-

pointment of noxious weed inspectors to look after the enforcement of the Act by each municipality, and the notifying of the Department of Agriculture of the province of such appointments. Where the municipality fails to carry out the provisions of the Act the Minister of Agriculture shall appoint the inspectors, and charge the expense to the municipality. In case the municipality refuses to pay the cost of such inspection the municipal commissioner of the province is given power to levy the amount against the municipality in default. Besides this any municipal council neglecting to appoint weed inspectors is liable to a fine of not less than \$25, nor more than \$100, and every member of a council who votes against any resolution to appoint inspectors is liable to a fine of not less than \$50 and to disqualification from being elected to any elective office in any municipality in the province for a period of one year from the date of the imposition of such fine.

#### DUTIES OF INSPECTORS

Weed inspectors where they find noxious weeds growing and in danger of going to seed, shall give notice to the person responsible in writing, requiring such weeds to be cut, and destroyed within a certain time, not exceeding five days, and such notice must not be given later than the 31st of July of each year, or such prior date as may be thought necessary. Every owner or occupant of land failing or neglecting to carry out the provisions of such sections (3) and (4) is liable to a fine of not less than \$25 or more than \$100. In addition to this, every owner or occupant is liable to a fine of \$25 for every day during which he fails to comply with the written notice of the inspector, as noted above. Railway companies which neglect to comply with the act are liable to a penalty of \$2 for every day during which the company neglects to do anything it is required to do.

Weed inspectors are given full pow-

er to go on any farm or property in enforcing the act, and are liable to a fine of not less than \$5 nor more than \$100, for failure or neglect to discharge their duties.

The inspector, with the consent of the council of the municipality, or the province, has the power to cut down and destroy any growing crop deemed necessary under the act, and no claim nor damage shall be allowed. In cases where a crop is only infested with Canada thistles to the extent of one half acre in the whole, the inspector shall use his discretion in enforcing the act, but he must notify the owner that if in the next or any succeeding year, his land is infested by the same extent the provisions of the act will be enforced.

As thus outlined the provisions of the new Manitoba Act is one of the most rigid pieces of legislation ever placed upon the statute books of any province in Canada. Where noxious weeds are such a menace to successful agriculture as they are in the west, drastic measures are necessary. The system of farming followed, and the neglect of the farmers to remedy matters, have caused the older portions of that part of Canada to be overrun with weeds. The newer provinces should take a lesson from Manitoba, and endeavor to keep them in check. Even Ontario and other Eastern provinces might learn a useful lesson. Weeds must be kept under control or agriculture cannot be made to pay in any country.

#### What is Good Seed?

To secure good seed, one must know what constitutes good seed. Good seed should be clean and free from weed seeds. It should be fresh and dry and with no trace of mould. Some seeds will retain their germinating power much longer than others, depending to a large extent upon the condition of the outer tegument, and the susceptibility of the seed to the effects of gases and moisture. Some recent tests in France show that

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seeds of a species of water lily germinated after having lain fifty-six years in a museum. With ordinary farm grains the life of the germinating power of the seed is limited to from two to five years, depending upon the condition in which the seed has been preserved. Dryness is essential in the preservation of seed. Other things being equal, the farmer should secure the seed for next spring's operations from the crop of 1907. To make sure that the seed is all right, test it. Particulars for testing have been given in previous issues.

#### QUALITIES OF GOOD SEED

An English authority gives the qualities of good seed as follows: Wheat.—Bright clean skin; freedom from swell; plump grain; groove well filled in; color, red or white, according to variety; dryness.

Oats.—Thin skin; plump grain; color, black or white—not known, which indicates heating at some period.

Barley.—Thin, wrinkled skin, grain not shrunken, but plump, with small, fine ends; pale, white to light golden color; freedom from swell; dryness.

Peas.—Dryness, and full size of the variety, colors, white, blue, brown and mottled. Black peas have been subjected to wet in the field, or elsewhere, and are useless for seed.

This definition of what constitutes good seed in the four cereals named, should enable any farmer to recognize good seed, when he sees it. Of course no amount of quality in the individual seed will make up for bad seeds and other impurities in the sample. It would be better to use an inferior quality of seed, that was clean, than a superior seed containing noxious weeds.

#### Power of Railway Commission Extended

The bill of the Minister of Railways and Canals, brought in at Ottawa recently extending the powers of the Railway Commission, will meet with general favor. Telegraph, telephone and railway cartage companies, and sleeping cars, will come under the jurisdiction of the commission. Power is also given to order railways to pay reciprocal demurrage, and to compel railways to pay for delay to supply cars, when demanded, or, if after supplying cars, they delay delivering them at their destination.

Fruit shippers and others have been put to great inconvenience and loss through delay in getting cars, and their goods not arriving at their destination in time. The commission will now have power to compel the railways to remedy these grievances.

## 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 is 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

**Some Points That Helped the Judges**

Two important features of Mr. Geo. McKenzie's farm, which was awarded first prize in the dairy farms' competition last summer, were the cleanliness and neatness of everything about the farm; and the fact that Mr. McKenzie had been working for years with a definite object in view—the improvement of his farm. These were features about the farm in general, as noticed when visited by the judges in June. Mr. McKenzie follows a system of rotation in his farm management. This consists of corn and roots the first year, followed by grain sowed to grass, and last down for from one to three years, according to condition of land as to weeds. As a result of good management, his crops were in good shape. The cattle also were in excellent condition.

It was at the time of the winter visit, however, that these features became even more apparent. Many dairymen, owing to lack of proper stable accommodation, have their stables in winter in a very unsanitary condition. As a consequence, stock does not look, or do, as well as it might. Mr. McKenzie's stables were the opposite of this. They are commodious, well lighted and well ventilated. The walls are kept white-washed, and the floor is clean. The stock gives evidence of its comfortable quarters, and the good treatment it receives. They are groomed every two

or three days. A large silo is a feature of the stable.

The herd is composed of a few registered Holsteins, and some good grade Holsteins. The rest are common grades, which Mr. McKenzie intends to dispose of as soon as possible. He has two of his best cows entered in the yearly test, and is testing others himself.

Mr. McKenzie feeds turnips, together with bran and shorts, oil cake meal, chaffage and wheat chaff. He has had no complaints about tainted milk from the feeding of turnips, as he feeds them judiciously, in limited quantities and immediately after milking. Furthermore, the milk after being drawn, is handled so as to ensure its best keeping qualities.

Mr. McKenzie is experimenting with the maulin curtain system of ventilation. This system originated in the United States, and is in use in a number of large dairies, there and is giving very general satisfaction. It has been tried, also, in some places in Canada, particularly at the Experimental Farm at Ottawa, but is not giving the best of satisfaction. Mr. McKenzie has not experimented with it long enough to warrant him in drawing conclusions. He seems to think, however, that it makes the stables too cool and damp.

**HANDLING THE MILK**

A good cement milk house erected on this dairy farm last fall, has much to do with the good quality of the milk produced. This is divided into

**AYRSHIRE RECORD OF PERFORMANCE**

The following is a list of the Ayrshire Cows which have qualified for the Record of Performance during 1907.

**MATURE CLASS.**

Name of Cow.	Owner.	Use of Milk.	No. of Pnt.	Days in Year.
Lady Stewart, No. 11055	A. Hume, Menie, Ont.	9,015	344.65	322
Almaida of Danville, No. 15,282	G. Laugiller, Cap Rouge, Que.	11,357	408.95	305
Milly, No. 1,529	" " " " " "	10,629	379.00	302
Lady Isabel, No. 7,467	J. N. Greenhields, Danville, Que.	8,884	312.00	344
Miss Sandland, No. 8,544	" " " " " "	8,613	317.00	345
Barnegont Heather Birds, No. 21,369	M. R. Nis, Howick, Que.	8,549	319.02	322
Nelle Burns of Burnside, No. 11,292	" " " " " "	8,721	304.05	275
Matchless Beauty of Neatharion No. 19,043	G. Laugiller, Cap Rouge, Que.	8,845	312.4	305
Daisy Carleton, No. 11,548	J. N. Greenhields, Danville, Que.	12,297	386.40	305
Lady Pearl of Burnside, No. 15,467	M. R. Nis, Howick, Que.	9,291	328	287

**THREE YEAR OLD CLASS.**

Norma, No. 18,391	W. D. Parker, Hatley, Que.	7,141	292	330
Julius of Hickory Hall, No. 18,392	N. Drymont, Clapton, Ont.	7,116	307	343
Primrose of Hickory Hall, No. 18,393	" " " " " "	8,584	318	355
Rosalee of Hickory Hall, No. 23,492	" " " " " "	7,053.7	300	365

**TWO YEAR OLD CLASS.**

Lady Clare 4th of Burnside No. 22,280	R. R. Nis, Howick, Que.	7,909	309.3	294
Barcheskie Sucky Girl, No. 21,365	" " " " " "	8,719	320	313
Romland Dorothy, No. 21,370	" " " " " "	9,049	315.3	302
Phylaxion Rose, No. 21,390	" " " " " "	7,163	285	325
Sue of Hickory Hill, No. 22,281	N. Drymont, Clapton, Ont.	7,419	292	353
Isaleigh Nancy 1st, No. 20,025	J. N. Greenhields, Danville, Que.	7,439	277.1	343
Sunmyer Princess, No. 19,366	W. D. Parker, Hatley, Que.	6,714	273	350
Minnie of Elm Shade, No. 18,888	H. Gordon, Howick, Que.	7,254	293	289
Barcheskie Sybil	" " " " " "	6,090	275.9	296
Stadsons Silly	G. Laugiller, Cap Rouge, Que.	7,000	287	309
Adalia 2nd, No. 22,009	E. Cohoon, Hartsville, Que.	9,921	306.9	305

milk vat is a stand, on which is located a large wooden tank. This tank is fed by a windmill drawing from a spring. Owing to its elevation, the bottom being considerably higher than the level of the barn, the water runs to the barn by gravitation, where it is distributed into water basins, in front of each cow.

Besides Mr. McKenzie's herd of well bred Holsteins, he has a flock of pure bred Plymouth Rocks, that is deserving of mention. There are two compartments, one being for ice, and the other containing a vat in which the milk is placed. Above the

about one hundred birds in this flock, which have all been carefully selected, and bred from good egg-laying strains of the breed.

**MR. DUNCAN'S FARM**

The largest dairy farm in the dairy farms' competition is that of Mr. David Duncan, of Don. Mr. Duncan's farm consists of about 300 acres and supports 87 head of cattle, principally pure bred Jerseys. Mr. Duncan follows a good system of rotation, and, as a consequence, he has been able to greatly increase the fertility of the soil, thus enabling him to produce good crops from year to year.

His buildings are large and airy. His stables are not quite so well modelled as some of the other stables in the competition, though he proposes remodelling them shortly. His herd of pure bred Jerseys is the best of any of the competitors in the competition. It is, in fact, a show herd having won many prominent prizes at the leading Canadian fairs.

At the time of the winter visit of the judges, the stock was in good condition. Mr. Duncan is feeding Gooderham grains, and finds them both cheap and effective. Besides this, he has two silos, which gives him an abundance of good feed, not only for winter but also for summer. He claims that by having a summer silo he can produce milk far cheaper, and keep his cattle in better condition than though they did not have this feed. The water facilities are good. Water is piped to the house from a spring half a mile away. For the stable water is pumped by a windmill and distributed into water basins in front of each cow. The stables are hardly as well lighted and ventilated as are those of Mr. McKenzie.

Besides the dairy, Mr. Duncan turns off a large number of hogs each year. This branch of the business he regards as a most profitable adjunct to dairying. Mr. Duncan has sold over \$1,000 worth of hogs at one time. He secured second prize in the competition.

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Section and Flexible All Steel Harrows with an unequalled record. A large variety suitable for the requirements of the country, made in different widths to suit purchasers. Pre-eminently the most efficient, strongest, and longest wearing Harrows ever manufactured is our unequalled guarantee. Parties wishing a first-class Harrow will do well to write us direct, or apply to the local agent.

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## HORTICULTURE

### How and When to Spray

Eunice Watts, Waterville, N.S.

At the fruit and seed fair held in Berwick, N. S., by the Nova Scotia Farmers' Institute, late in February, Mr. W. H. Woodworth, secretary of the association, delivered an able address on spraying. He emphasized that in order to spray well the fruit grower must have good apparatus, which should consist of quarter inch hose, five or seven ply, with a length of 25 or 30 feet. All parts of the pump which are to be submerged in the liquid should be of brass. Mr. Woodworth said that there were many good nozzles on the market, but he preferred the Planet Junior, which produces a fog-like spray, and never clogs or catches. He strongly advocated the use of an indicator on the pump.

Other pointers were given as to the care of spraying machinery. The hose should always be carefully washed out after use and in winter it should be safely housed in a frost-proof building. The audience was reminded never to omit straining the Bordeaux through a cheese cloth, as the finer the particles, the longer they will be held in suspension, it is necessary to keep the solution agitated, and it will settle, and most of the Paris green will be thrown on the first trees. Later the operator will wonder why the worms were killed on the first trees, while they flourished on the last that were sprayed.

In order to kill the bud-moth, the first spraying should be done before the buds open. The next spraying should be done after the petals have fallen. Much indignation was expressed at the growing practice of spraying when the trees were in full bloom. It not only kills the bees, but is very injurious to the tender organs of the flower, and destroys the pollen. It was proved in Waterville that apples sprayed in the flower stage were not saved from black spot.

Mr. Woodworth warned growers not to spray during damp or foggy weather, or russety fruit and leaves would be the result, and rot was more liable

to attack russet spots. Black spot is never found on a russety surface, as it has been protected by the Bordeaux.

People might put on seven or eight barrels of solution a day, but it is impossible to spray properly, and put on more than four or five barrels of material.

It is advisable to plow in the fall, thus covering diseased leaves and preventing any spores of black spot floating back to the trees.

At this juncture several questions were asked, and discussion followed. Mr. Woodworth advised the sowing of vetches in the orchards in preference to commercial fertilizers. Several leading fruit growers then related their success in growing these legumes, the majority of them preferring to sow summer vetches, as the winter vetch, although claimed to be a better nitrogen gatherer, was too expensive for most growers to buy.

The reasons given for apple spots in the warehouse were (1) putting lemons in barrel with the fruit, (2) leaving barrels in the orchard in damp weather, (3) putting damp fruit into a warm temperature. The last two were ideal conditions for propagating the disease.

### Tomato Growing.

R. H. Lewis, Hamilton, Ont.

For early tomatoes start the seed in March. The date will depend upon the locality. In the Hamilton district it is from March 1 to 15. Sow in drills, four inches apart, in hotbeds. Earline is the best variety. The young plants should be transplanted twice, the first time to four inches apart, and the second six inches. Keep the plants growing without a check. Spray with Bordeaux mixture to prevent injury from fungi.

Plant early varieties out doors about May 15 to 20. Before removing from the hotbeds, soak the soil well with water, then remove in boxes, and plant with a spade. Place the plants about four to five feet apart. The land should be fairly rich for the early varieties. For best results it should be prepared and manured during the fall previous. When planting it is necessary to mark the rows, this may be done by hand or with

a horse, depending upon the area to be planted.

The seed for late tomatoes should be sown about two weeks later than recommended for the early ones. These should be transplanted, once to four inches apart. The land for late tomatoes should not be too rich, or vines will be produced at the expense of fruit. The leading varieties are Stone and Success. The former is the better for long distance shipping, but is not so productive. (A portion of an address delivered at a recent meeting of the Toronto Branch of the Ontario Vegetable Growers' Association.)

### The Strawberry

Wm. Blackford, Prospect Hill

In discussing the virtues of Nature's most gracious gift in the fruit line the late Mr. John Little, of Prospect Hill, once wrote: "No branch of horticulture offers more inducements than the growing of strawberries. Thriving more or less on any soil, in any place from Newfoundland to British Columbia, it repays high culture as well as any fruit grown in this latitude. It does not demand much labor, expensive tools, much capital, nor much physical strength. Its culture recommends itself at once to persons who have small places, to city men who long to leave the deak and to delve. Mother Earth, to old men, women, boys and girls, to all who love to till the soil, and to watch the growth of plants, study their habits, supply their wants and reap their fruits. They are sure growers and almost equally sure to sell at paying prices; they exhaust neither the land nor the grower, but leave both richer. Their culture offers employment that is pleasant, easy, refining and profitable, and gives an opportunity for good work by supplying work to many a child and woman and by sending health and happiness wherever the berries go."

It is not desirable that all should engage extensively in strawberry growing; but almost every one who has a few rods of land, should have a small plot for family use. This is especially applicable to farmers; yet the majority of agriculturists totally ignore it. A few hours study of any one of the many pamphlets on strawberry culture would post a person

thoroughly on the best methods of cultivation, and would ensure positive success. Only a few varieties are required for home use, but standard reliable kinds should be selected. Such old standbys as Ridge-way Wm. Belt, Woolworth, Emperor, etc., are suitable. They are easily grown and seldom fail to yield an abundant crop. A few years ago, a patch of Ridgeway produced 350 boxes from six rods. At six cents a box, the returns amounted to \$200 an acre. Emperor is an excellent strawberry, and, with us, yielded an abundant crop last year. Wm. Belt is subject to rust, but by careful spraying, it can be brought through in good condition, and, owing to its superior qualities it is indispensable for table use.

Extensive growers cannot be content with old varieties. They must keep abreast of the times, and so must test many of the new introductions. One of those most meriting attention, is the Cardinal, of which much has been written, and many good things said. From one dozen plants received from the originator, Mr. G. F. Streator, we obtained about 400 new plants. Two hundred of these were planted last spring and the remainder left to rust. The result proved the truth of the best reports from such growers as G. J. Streator, M. Crawford, The Templin Co., and others. Besides being a great plant producer, very productive, good size and very firm, it is one of the best varieties for canning purposes. The most exacting connoisseur in the strawberry line, goes into raptures when indulging in this delicious berry. We can highly recommend it to all growers of this fruit.

Scallion onions usually are due to the planting of poorly selected seed of immature bulbs, but sometimes they are difficult to account for.

Cherry trees need but little pruning after the young trees have been properly formed.

Farms for sale should be advertised in our For Sale column.

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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### CLOVER and TIMOTHY

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

OUR HIGHEST QUALITY BRANDS ARE

"LION" Red Clover "CONDOR" Alsike Clover "SNOWFLAKE" Timothy

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.

ASK YOUR DEALER for STEELE, BRIGGS' "HIGH PURITY" SEEDS and secure the highest quality obtainable. Our Special "Brands" are sold by leading merchants everywhere. If your local dealers don't keep them send to us direct. Note our "Brands" of Quality.

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**The Poultry Man**

W. Bur Bennett, Peterboro', Ont.  
The most important part of the whole poultry business is the man himself.

The man who makes a success of poultry to-day must have a genuine love for his fowl. He must not be a lazy streak in him. These two features properly applied, with the addition of some brains, will give him eggs in winter from his flock. He will not need a hospital or medicine chest, other than a hatchet, which should be the remedy in all cases of debility, weak lungs, or sick birds, and thus the vigor of the utility flock is kept up to the highest notch. A fancier will generally doctor up and brood from anything that has the colored feathers. Not so however the man who wants to

**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. Buying 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 grows sturdy chicks.

Send your order in to-day, and get in line with the profit getters.  
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**FOR SALE**—Clover cutter for Poultry, on stand almost new, and other supplies. J. H. Callender, Kewlax office, Peterborough, Ont.

**BARRED ROCKS and BUFF ORPINGTONS**—Best strains—bred for utility—Egg record hard to equal—Eggs \$1.00 per 15, \$1.50 per 10. W. H. Bennett, Box 288, Peterborough, Ont.

**FOR SALE**—Six Choice Barred Plymouth Rock Chickens at a bargain. J. F. THIRVEKIN, Pouches's Mill, Ontario.

**STEPHEN OLIVER**, Lindsay, Ont.—20 kinds of fowls—Hamburgs, Leghorns, R. Caps, Houdans and W. C. P. Oldfash.

**J. J. SACKETT**, Lindsay, Ont.—Brooder of White Leghorns, S. S. Hamburgs and Barred Rocks.

**INCUBATORS FOR SALE**—Three Models One Chatham, One Toronto-Incubator Co. also W. H. Nettling, F. ROBERTS, Danforth Post Office.

**WINNING STOCK AT GUELPH**, 1907, Buff Orpington and White Wyandotte, eggs for sale at \$1.50 a setting. H. T. Lamb, 182 Dublin Street, Peterboro.

**BUFF ORPINGTONS**, Barred Rocks, Brown Leghorns, Game Hens, 8100 settings, Elgin Resor, Locust Hill, Ont.

**MANMOUTH BRONZE TURKEY**, 8 exhibition hens mated with the first prize yearling Tom at Guelph, December, 1907. Eggs from this yard, for nine and ten sets for \$5. Also one grand pen of Rose Comb Brown Leghorns, six exhibition hens mated with the first and special cock at Guelph, December, 1907. Eggs from this pen, \$5 for 15. I also have Barred Plymouth Rocks headed by a first prize cockerel. Eggs \$2 for 15. Chas. B. Gould, Box 363, Guelph, Ont.

**THE PRACTICAL POULTRY KEEPER**, tells all about breeding poultry, about incubators, poultry houses, diseases and cures, etc. Only 10c per postpaid. Useful Novelties Co., Dept. F, Toronto, Ont.

make his flock pay for its keep in marketable eggs and dressed chickens.

**Care of Poultry**

"If poultry were properly cared for, they would give better returns than any other farm product. It costs about \$1.45 a year to keep one hen. Plymouth Rocks and White Wyandottes are the best general purpose fowls. It is not advisable for a farmer to invest in an incubator, unless one of the family is prepared to give it proper care and attention. A better plan is to set four or five hens at once. The eggs should occasionally be tested, and the rotten ones taken away. Thus, if many of the eggs are bad there is a chance to put new eggs under the spare hens.

It is better to set hens at night in a separate brood house, first taking care to give them a thorough dusting with insect powder, or when the chicks hatch the parasites will bore into their heads causing death, unless the infested parts be smeared with grease.

Hens should not be set after June, as young chicks do not thrive well in hot weather. No food should be given to the birds until they are over a day old. The yolks which their bodies have absorbed, are sufficient to sustain them. The first food should consist of bread, soaked in milk, squeezed dry, and crumbled hard-boiled egg; also bread crumbs and rolled oats. Later on a mash could be given of bran, corn meal, middlings and milk.

**Age Limit of Eggs for Setting**

I have a cockerel and two pullets that I raised from an imported setting of Buff Orpington eggs. I have mated the trio and want to know from those so far so to have as many of this kind next season as possible. I can get up to some age of one egg a day, but only get some age to set a setting. How long will it take to get the eggs to set strong, and what is the best treatment while they are set—L. R. C. Campbell, Cambridge Co., N. S.

As eggs are now being successfully sent long distances for hatching purposes, it is better that they will keep under favorable conditions, for some time. An egg a day would only mean two weeks saving to get a setting. The first eggs will certainly keep that long and hatch well afterwards, though they will be a few hours later than those perfectly fresh. While saving them, lay them on bran and turn every day. Keep in a cool, dry place.

**A House for the Winter Layer**

W. Bur Bennett, Peterboro', Ont.

Having a properly constructed and ventilated poultry house is essential to winter egg production. I do not favor warm and expensive houses, as they are not needed. Do not build double walled or artificially heated buildings. Such are unnecessary even in the coldest weather. What is required is a house tight enough to prevent all draughts, and one that is perfectly dry. An earthen floor is the best possible, and also the cheapest, and a house tight enough to be made either of glass or cotton curtains, placed high enough on the south side to allow the sun to shine into all corners, is a house tight enough. Sunshine is the best disinfectant we can have, and should never be stinted.

A straw loft in a double pitched house, is a grand thing in doing away with the moisture in winter, and it helps also to keep the house cool in summer. The interior of the house should be built as simple as possible, so as to allow a constant draught, and the keeping clear of vermin. The walls should be whitewashed at least once a year, and coal tar or liquid lime water applied to the walls frequently and there will be no trouble on this account. The same thing should be done with the brooders

and other coops. The litter on the floors should be changed often enough to have it always dry and clean. Fowl may be kept in almost any size flock, some people having as high as 2000 together, and using the hopper feeding system with success. Of course in the large flocks, they are kept solely for egg production, but for brooding purposes it would be a different matter. So far as my own experience goes, I think a flock of 50 about right, if they have the necessary floor space.

**Need Grit and Vegetables**

My hens are not laying and mope around a good deal. They get so seem hungry and leave their food after eating rather miserably. I find good grain, coming from oats to wheat, and some corn (cracked). The pen is a comfortable one, and fowls seem healthy, but male in the comb, and they give no return for the food given them. What is the trouble?—Mrs. B. Sisk.

The trouble appears to be lack of grit, and probably the birds require some vegetable food as well. You can get first-class grit from your feed store, as most of these stores now carry a stock of it. It is very cheap, only about one cent a pound. The vegetables you can give in the form of cabbage heads hung in the pen, or mangels, split and stuck on a nail within reach. With these additions, you should get plenty of poultry, you should have a healthy flock, and get eggs.

**The Breeding Pens**

Now soon should the breeding pens be mated up in order that I may have chicks in April that will be from the male and females we want to breed from? How many hens would you advise to mate with one male, of the American class? Are you in favor of the general laying flock?—J. W. Carleton, County.

It is time the breeding pen was mated up now, if results are wanted from that pen, for April breeding. You can mate 2 to 10 females to one male of the American class. It is much better to have no males with the general laying flock, when eggs are wanted for market, or home consumption. This gives an unfertilized egg, that will keep indefinitely, and even after being incubated for some time, will hatch as well as fresh. Most of the large egg farms now keep their layers away from the male bird, and thus get a better class of eggs to supply their trade.

**Mites in Incubators**

After running my incubator in the cellar for a couple of hatches, I found it was covered on the inside with a small mite-like insect. This cannot be gotten as the machine is a new one, and has never been near where poultry is kept. What are they, and what will keep them down?—E. Ford, Ont.

Your cellar is probably a little damp, and the insects are caused by that, and while harmless, they are disagreeable to work around. A tar disinfectant would probably expel them. A preparation that is spoken highly of, and recommended for such purposes, is "Zeoleum." This is a tar product, and has the additional advantage of being made in Canada, the plant being at Windsor, Ont. It is carried by druggists all over the country, and you can likely secure it easily. It is also said to increase the vitality of the chick if used in the incubator.

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**Inquiries and Answers**

Readers of the paper are invited to submit questions on any phase of agriculture.

**Stable Manure and Superphosphate**

I saw recently in a farm paper that it was a good plan to mix superphosphate with stable manure and if for vegetables, some muriate potash, would you advise mixing superphosphate and muriate of potash so as to make one or two loads do where I intended to put 40-50 E. G. Murray River.

It is not advisable to mix commercial fertilizers with farm yard manure. If you wish to use them you had better go slow on the start, using them only in an experimental way, as it is very easy to waste money in this manner. Superphosphate is never mixed with farmyard manure, except in small quantities to prevent loss of ammonia. We would refer you to the bulletins of the Ontario Agricultural College for information re commercial fertilizers

**The Hog Proved False**

I purchased a large, improved Yorkshire boar 12 weeks from a Quebec breeder, paying him \$12.50 for same. He is about 7% months old today. He will not serve my sows. I have been obliged to breed them to a scrub boar in the neighborhood, thus losing the use of a pure bred boar. This pig has been well fed and cared for, has had lots of exercise, and my neighbors think him a fine animal for his age, but he shows no inclination, whatever, to serve sows. As I shall be obliged to dispose of him at the price of one row, I would refer you two ways. I wrote the breeder requesting that he refund the portion paid in excess of the price of pork. He asks that I submit the question to a leading farm paper and he will be satisfied by its opinion. Would you, therefore, be kind enough to refer your opinion on this matter—S. G. Terreboune Co. Que.

It is the general custom in purchasing pure bred stock for the buyer to take all risk as to the breeding qualities of the stock purchased, unless otherwise agreed upon at the time of purchase. As the pig is still young, he should prove entirely satisfactory as a breeder when the warm weather sets in. At any rate we do not think it fair to demand a rebate from the breeder.

**Obstruction in Teat**

One of our cows which freshened about two weeks ago has gone wrong in one of her front teats. In this teat she has become closed and we cannot get any milk out of it. There is no swelling or any hard lump in the udder or teat. Will you kindly prescribe for this case?—R. S. Agricultural County.

Will a twin heifer calf breed? One of our best milking cows has produced a pair of twins, a heifer and a bull, and we would like to keep the heifer calf. The impression prevails, however, that a heifer calf born under these circumstances will not breed. Will you give us your opinion concerning this?—E. J. N. B.

There must be an obstruction of some kind, either a growth, or a clot of whet or blood. It is possible that the introduction of a teat syphon may remedy the trouble, but in all probability an operation by a veterinarian with an instrument especially designed for the purpose, will be necessary. Do not attempt to pass a knitting needle any such instrument. If bathing with hot water and manipulation will not remove the obstruction, it will be better to employ a veterinarian.

When twins are out of each sex, the female is called a "Free Martin," and it is generally supposed that she will not reproduce. It is hard to say in what percentage of cases this rule holds good, but it is not uncommon for one to fail to breed, neither is it uncommon for one to breed regularly. It is not possible to say whether or not yours will breed. The only method of ascertaining is to try when she reaches the proper age.

**Worms in a Horse**

State how many different kind of worms in a horse, and treatment for each? Is there any cure for indigestion in a horse?—G. W. B., Ont.

There are three kinds of worms common to horses, viz. Bots, Pin Worms, and Round Worms. For Bots, two ounces of turpentine, in one and a half pints of new milk, given an empty stomach, three mornings in succession, is as good a remedy as any. The treatment for Pin Worms is merely local, by means of injections. First, give an injection to clear out the bowels, and follow it with one of salt and water, one ounce of salt to one-half gallon of water. A decoction of quassia chips may be used. For Round Worms, the remedy is to give on an empty stomach one-half dram tartar emetic, and one-half dram coppers; mix and give in fees three times a day, followed by a dose of aloes. Unless the indigestion has become chronic, a change of diet, and the giving of laxative foods, will distribute any specific treatment will depend upon the stage of the disease.

**Experiments With Farm Crops**

The members of the Ontario agricultural College Experimental Farms, have distributed to the members of Ontario this year, material for experiments with fodder crops, roots, grains, grasses, clovers and fertilizers. About 2,500 varieties of farm crops have been tested in the Experimental Department of the Ontario Agricultural College, Guelph, for at least five years in succession. These consist of varieties of roots, early all parts of the world, some of which have done exceedingly well in the carefully conducted experiments at the college, and are now being distributed free of charge for co-operative experiments throughout Ontario. The following is the list of co-operative experiments in agriculture for 1908:

Three varieties of oats; three varieties of six-rowed barley; two varieties of two-rowed barley; two varieties of hullless barley; two varieties of spring wheat; three varieties of buckwheat; two varieties of field peas; common and speltz; two varieties of soy, soja, or Japanese beans; three varieties of husking corn; three varieties of mangel; two varieties of sugar beets for feeding purposes; three varieties of Swedish turnips; two varieties of fall turnips; two varieties of carrots; three varieties of fodder or silage corn; three varieties of millet; three varieties of sorghum; grass peas, and two varieties of vetches; rape, kale and field cabbage; three varieties of clover; Sainfoin, Lucerne and Burnet; four varieties of grasses; three varieties of field beans; three varieties of sweet corn; fertilizers with Swedish turnips; sowing mangels on the level and on a drift; two varieties of early potatoes; two varieties of medium ripening potatoes; two varieties of late potatoes; three grain mixtures for grain production; three mixtures of grasses and clover for hay.

The size of each plot in each of the first 27 experiments and in the last two, is to be two rods long, by one rod wide, that is late potatoes one rod square.

Each person in Ontario who wishes to join in the work may choose any

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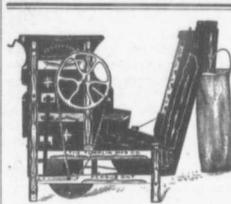
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ONE of the experiments for 1908, and apply for the same. The material will be furnished in the order in which the applications are received, until the supply is exhausted. Each applicant should make a second choice for fear that the first could

not be granted. All material will be furnished entirely free of charge to each applicant, and the produce will become the property of the person who conducts the experiment.

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Ontario Agricultural College, Guelph



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### TORONTO JUNCTION THE PLACE FOR THE WINTER FAIR

The Ontario Government, before placing a sum in the estimates for an addition to the Winter Fair building at Guelph, should have investigated the proposition to locate the fair at Toronto Junction. Recent developments have shown that many breeders, and others interested in the welfare of the show, are strongly in favour of making the change. The cattle sales at the Union Stock Yards the past two weeks, have demonstrated that the Junction will draw a crowd. Representative men were there from all parts of Ontario, and were outspoken in their desire to see a great national live stock show established at that point.

Toronto Junction possesses exceptional facilities for carrying on a show of this kind. Both the C. P. R. and the G. T. R. have direct connection

with the yards. The accommodation for loading and unloading stock is of the very best. There is ample room for stabling horses, cattle, sheep and swine in large numbers, and it is the very best of the kind to be found anywhere. In addition to this, the Union Stock Yards Company is prepared to meet the breeders more than half way in the erection of a suitable arena for show purposes. The plans for this arena provide for the expenditure of \$100,000, of which the breeders and others interested, are asked to contribute \$40,000. In these plans are included lecture rooms, committee rooms, offices, and everything that goes to make up a successful educational and live stock exposition. The Union Stock Yards are within half an hour's ride from the centre of Toronto, electric cars running to within a block of the yards. Every visitor to the show is, therefore, assured of the best of hotel accommodation.

Contrast this accommodation for visitors, exhibitors and exhibits, with that provided at Guelph. It will not compare with it for a moment. The Winter Fair building at the Royal City, is nothing more, nor less, than a burlesque on what the accommodation for a great national show should be. It is badly lighted, exhibits cannot be seen to advantage, the facilities for judging are poor, and visitors desiring to see the animals in the stalls, or pens, frequently have to tramp through filth and litter that would not be tolerated in any well-regulated breeder's stable. The educational facilities are below par. The lecture hall is noisy, hard to get at, and poorly ventilated, and the less said about the hotel accommodation the better.

And what does the Government propose? Merely to expend \$20,000 in enlarging this inadequate building. It would require several times that amount to make the facilities at Guelph what they ought to be. What is required is an entirely new structure, built upon up-to-date lines, and with a view to future expansion and growth. But no Government would be justified in expending so large a sum at Guelph, with the Union Stock Yards proposition before it. In our opinion, and it is the expressed opinion of a great many of our leading breeders and show men, the Government is not justified in expending even \$20,000 in patching up the accommodation at Guelph, without first giving due consideration to the facilities which Toronto Junction affords. The future of the Winter Fair is at stake. A mistake made at the present time would be fatal. What this country wants, and what our breeders desire, is a great national show, that would place our live stock industry in the front rank, advertise it abroad, and bring it into the limelight at home. In all sincerity, we claim that this cannot be done under the conditions now existing in the city of Guelph.

The strong argument for retaining the Winter Fair at Guelph, is its proximity to the Agricultural College. But is the argument sufficient to justify

paralize for all time to come the future of this great national show? No one appreciates more than we do the splendid work the college is doing, and the advantage of having the staff closely identified with the Winter Fair. But the fair does not need to be located at the college door to obtain the full benefit of its services. It is only a short run from Guelph to Toronto Junction, and a slight expenditure of time and money would enable the staff to give the show the full benefit of their services at that point. As for the benefit the students receive from being able to attend the show, it would be greatly increased by having the fair located at a live stock centre, where market conditions, and all features of the trade, could be studied.

The offer of the Union Stock Yards Company, is a most generous one. What has Guelph done for the Winter Fair? A paltry \$15,000 was contributed by the city to the building fund when the show was permanently located there, some eight or nine years ago, and it was hard work to get that. Contrast this with the offer of the Union Stock Yards Company to contribute \$60,000 towards the erection of a \$100,000 arena, and to give the use of their yards and stable accommodation, for show purposes. This offer is worthy of the mature consideration of any government. Before expending any more money in patching up the admittedly poor accommodation at Guelph, the Toronto Junction proposition should, at least, be carefully looked into. The breeders and stockmen expect this of the members of the government and will hold them to strict account for any mistake made at this juncture in the Winter Fair's history.

### THE CLOVER SEED PROBLEM

In a season like the present one, when clover seed is scarce, and the price almost prohibitive, considerable land that otherwise would and should be seeded to clover will be neglected in this regard. This is a great mistake. If the practice is followed long the result will be poorer crops, and finally the land will become so run down that it will be almost impossible to raise profitable crops.

The question of seeding to clover is of greater importance than ever this spring. Owing to the high price of all kinds of grain, together with the great demand for hay and straw, large quantities of these feeding stuffs, formerly fed, have this past season, been sold off the farm. Particularly has this been true of straw. Farmers, who never before sold a load of straw from their farms, have been induced by the prevailing high prices to sell all the straw they could possibly spare. In line with this policy the amount of live stock kept has been cut down wherever practicable. It is apparent, therefore, that farmers will have less manure to apply to their fields this spring than formerly. This can have but one effect. With a reduced supply of manure will follow a reduction in the yield of our crops.

We must take action then, to counterbalance this reduced supply of manure. In no way can we do it more effectively than by seeding a good portion of our farms to clover. Clover is the greatest of soil renovators. It loosens up the soil and places it in a good mechanical condition. It seems to add something to the soil that nothing else can do. It not only adds to the supply of nitrogen in the soil but greatly increases the amount of humus as well. Do not let the high price of clover seed, therefore, prevent you from seeding any of your land that should be seeded. The money thus expended will be returned many times over by the better crops that will ultimately be raised.

### IS THE DRAFT HORSE DOOMED?

The statement made in the annual report of the officers of the Harness, Hunter and Saddle Horse Society, that the heavy horse is doomed to be replaced by electricity or other power need not be taken seriously. In so far, at least, as Canada is concerned, the possibility of such a condition of affairs, is far distant. There is already planned in Canada and under construction enough railway building to provide a market for heavy working horses for years to come. And this is merely the beginning. As the West develops and the "hinter land" of Ontario and Quebec is opened up, railway construction will increase and with it demand for horses of the draft type, not the military or pleasure horse, valuable though he may be.

It will be some time also before the heavy draft horses will be out of the running in other lines of activity. For farm work and for heavy teaming in towns and cities he will be wanted for some time to come. With the kind of winter we have had this season it is questionable if electric or other motive power will ever come into general use. Where snow piles up several feet high on the country roads and in the city streets as well, the horse is the only motor power that can be utilized to advantage. Motor power is not of much account in a snow bank. Even the powerful motor engines of our railways are powerless against it. But, the intelligent horse, with proper guidance, will get through some good sized banks of snow, and haul our sleighs with decent loads on them after him.

More maple sugar and maple syrup are produced in Ontario than most people suppose. The maple areas are so scattered there is no means of determining their extent. In the State of Vermont, the sugar makers have a strong association which has done excellent work. This association holds an annual convention and occasional local meetings. There is an exhibition of maple products and of supplies used in maple sugar making. The association has helped the makers by securing laws that protect them from the competition of adulterated products. We would like to hear what those of our readers who are interested in this matter think of this suggestion. Why do our On-

tario and Quebec sugar makers not cooperate and form an association for the purpose of advancing their mutual interests?

### Rural Delivery Favored and Opposed

Readers of The Canadian Dairyman and Farming World are evidently much interested in the series of articles we are publishing in regard to Free Rural Delivery in the United States. Some of our subscribers who have missed copies of their paper have written requesting that the missing numbers shall be sent them in order that they may not miss any of the articles in the series. One man wrote that the bundle of papers for his Post Office had not arrived and that they were all waiting anxiously for their copies.

Some of our readers are not in favor of Rural Delivery. Mr. R. W. Ralsten, Postmaster at Amherst, N.S., is one who is opposed to it. In a letter received from him recently, Mr. Ralsten said:

"I am following with interest the discussion now going on in the columns of The Dairyman and Farming World for and against free rural mail delivery in Canada. I am against this scheme. It will entail an enormous financial burden on the country, and will be a means whereby the unscrupulous politician will be able to forward his ambitions to the serious detriment of the country. The honest man, who wishes the country well and tries to do the right thing, will not have a chance with him.

"I am against it because it tends to centralize. The country store and post office are factors in the life of every community. Prosperous towns have grown up all over this continent from just such beginnings as the 'country store,' 'the post office,' 'the wayside hotel,' and the small factory. I am against it because it robs the farmer's child of a certain educational advantage. A trip to the post office after the day's work or a call on the way to or from school, gives the child a certain amount of insight along business lines, and assists in fitting him or her for citizenship. If the government wants to do anything really fine, let them nationalize the telephones. Make every post office a telephone office, put the charges in the reach of all, place it on the same footing as the postal service, i.e., you must pay the rate or your letter won't go; likewise, if you take the receiver down you must pay the toll."

#### MORE OPPOSITION

Still another of our readers, in the person of Mr. E. J. Dunbar, of Melbourne Ridge, Que., is opposed to rural delivery. He has asked us the following pointed question:

"Do you imagine that the majority of Canadian farmers will allow themselves to be taxed in order that a small minority, who live on the rural mail routes, can have their mail delivered to them every day?"

#### FARMER'S DOOR'S WANT IT

Mr. John Eldridge, of Hepworth, Bruce County, claims that farmers do not want the service. He says:

"I have read your articles on Rural Mail Delivery for the last month and as you wished to hear from the farmers, I have come to the conclusion that the farmers do not want it. In the first place the farmers never asked for anything of the kind. I have attended a great many Farmers' Institute meetings and it was never even spoken about and I think the farmers are capable of knowing what their needs are and are not slow in asking for anything that is necessary for their good. The present mail service is perfectly satisfactory. Post offices are in every village and store and some in private houses all over the country. We have to go to the

stores and railway stations two or three times a week with butter and other provisions to sell and also to ship hogs and cattle. It would be strange if we could not bring home our own mail. I have seven weekly and one daily paper coming every week and I find no difficulty in getting them. It would have been better if so much had not been said about the matter till the Farmers had been consulted. There may be a few in favor of any wild scheme but the great majority I believe do not want it. It would be a great expense and no good purpose would be served.

**WHAT THEY ARE DOING IN EUROPE**  
Others of our readers are in favor of Rural Delivery. M. David Howse, of Niagara-on-the-Lake, writes: "Why not suggest to Hon. Mr. Lemieux that he should introduce parcel post in conjunction with Rural Delivery? In Germany, you can send an 11 pound parcel, 50 miles for six cents, and throughout Germany, Austria and Hungary for 12 cents. The profits on this and other such monopolies, go toward the reduction, not the increase of taxation."

#### VIEWERS OF OTHERS WANTED

We will be very much surprised if Mr. Eldridge does not find that there are a great many farmers in this country who want free rural mail delivery and they are not light headed men either. For instance, Mr. T. A. Thompson, of Almonte, told us recently that he lives four miles from his post office. He holds a municipal office and frequently receives seven and eight letters in a mail. On different occasions he has been handed his mail just as he was leaving for home.

On reaching home he has found that some of the letters required to be answered immediately, and has had to hitch up and drive back four miles to town. Mr. Thompson states that there are many other farmers in his section who are in the same position. Scores of similar cases might be cited.

There is a general impression that the expense of rural free delivery will be ruinous. In this connection we would like to draw the attention of our readers to the fact that this side of the question has not been dealt with yet in the series of articles that we are publishing. When it is some interesting information will be brought out. Our series of articles will run for two or three months yet. In the meantime we hope that more of our readers will make their views known. This is probably the most important question that is before our Canadian farmers. We want the views of those who are opposed to rural delivery as well as of those who favor it.

#### Canada's Heritage

Before the agricultural committee at Ottawa the other day Mr. E. Young of the Department of the Interior gave some interesting figures as to the possibilities of grain growing in the west. If the present wheat area of the west yields 100,000,000 bushels it was no great stretch of imagination to look for a future wheat production in this country of 1,500,000,000 bushels worth three times the total foreign trade of Canada. Latitude does not govern climate in Canada. In summer it is just as warm in Fort Simpson on the Mackenzie river as it is in other parts of the Dominion. Cabbage, lettuce and potatoes can be grown successfully within 14 miles of the Arctic circle. Owing to the long days in summer growth is rapid. Wheat grown last year at Fort Simpson in latitude 62 ran 62 pounds to the bushel and was of fine quality. The Southern boundary of the province of Tokokak in Siberia is 100 miles farther north than Edmonton and yet that province has a population of 1,500,000 people, and in 1900 produced 64,000,000 bushels of wheat and 10,000,000 bushels of oats.

## Sound Sense

That's all you need. Considering the fact that the **De Laval Cream Separator** is almost universally copied or imitated—what do you gather from that fact?

Considering the fact that the **De Laval Cream Separator**

has been in use for thirty years by dairymen all over the world, under every possible condition, and proven unequalled, what do you infer from that record?

Considering the fact that the **De Laval Cream Separator**

has been awarded highest prizes at every exhibition where shown—including all the great World's Fairs since 1879—what do you deduce from this universal recognition by authorities?

Considering the fact that the **De Laval Cream Separator**

is in use by 98% of the Professional Butter-makers of the world, what do you understand that to mean?

Considering the fact that the **De Laval Cream Separator**

NEW MODELS—10 sizes and capacities—are as far ahead of the old styles, as the old styles are ahead of imitating and competing machines.

Considering these facts

**What else can you do than get the genuine**

**De Laval Cream Separator?**

CATALOG FREE

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## Creamery Department

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

### The Preparation and Care of Culture

Concluded from last week

Mistakes are often made in taking too long a time to heat the milk. The cans are placed into a tank or barrel, the steam turned on and let boil for several hours without stirring, which often gives the milk a burnt flavor, also too long a time is taken to cool them to 60 or 75 degrees, from 185 or 180 to 100 degrees. I do not think any serious trouble will start, but I am of the opinion that where cultures are left standing at a temperature anywhere from 100 to 70 degrees for a long time uncovered before being inoculated with the pure lactic acid germ, the undesirable germs have every chance for reproduction. If makers would provide themselves with a good pasteurizing box, also cans as previously described, and have the water heated somewhat before placing the cans of milk in the box, it would not take much time for pasteurizing, and better results would be obtained. I have found that where the making of cultures involves a lot of time and work, it is often done in a very haphazard manner.

Good milk selected at the weight porch, pasteurized to a temperature of 180 to 185 degrees, and cooled immediately to 65 or 70 degrees, should give us a medium to be ready for inoculation. We find it necessary to propagate the culture several times before using, and sometimes we find the starter with not the best of flavor and needing further propagating. A possible explanation is, that each organism must become adapted to the medium in which it grows before it gives its characteristic odor or flavor in that medium. The cultures, as sent, contain the organisms in a more or less dormant condition. These organisms regain their vigor and increase their acid-forming properties after several propagations.

No hard or fast rule can be laid down to the temperature or the amount of mother culture to be used. It will depend somewhat on the length of time from making till using, and the temperature at which it is held, but no more should be used than will give the desired acidity. By testing the acidity from day to day, the maker will soon know how much mother culture to add to produce the amount of acid required and the smoother texture and better flavor will be secured, and there will be less danger of over-ripening.

## Liquor and Tobacco Habits

A. McTAGGART, M.D., C.M.

75 Yong Street, Toronto, Can.

References as to Dr. McTaggart's professional standing and personal integrity preferred by:

Dr. W. P. Meredith, Chief Justice.  
Hon. D. W. Ross, Premier of Ontario.  
Rev. N. Burman, D.D., President Victoria College.  
Rev. Father Terry, President of St. Michael's College, Toronto.

Dr. McTaggart's Vegetable Remedies for the Liquor and Tobacco Habits are healthful, safe, inexpensive home treatments. No permanent injuries, no waiting, no loss of time from business and a certainty of cure. Consultation or correspondence invited.

We find that when a culture has from .65 to .75 and not over .80, it gives the best results.

We are reminded that the under-ripening of starters is just as important to guard against as over-ripening. Prof. McKay tells us that about the time milk begins to turn sour it is a rather disagreeable flavor.

After more acid develops, the undesirable flavor begins to disappear, and the milk gets a clean acid taste. An explanation is given by Prof. Storck, the well-known authority on cultures; he tells us that the disagreeable flavor is due to the action of undesirable organisms during the first souring stage, and as the souring progresses these germs are subdued and gradually crowded out by the desirable acid-producing types.

Before using a starter, I would remove one or two inches of milk from the surface of the can with a sterilized wire-handle dipper, as the surface is liable to contamination from outside sources, and break up the remainder by stirring well in can. This is the best time to take out a small quantity to propagate the culture for next day. Too many cultures are let set around in cans and pails, also dippers, which become contaminated before using.

The only vessel that should be used to hold the culture for propagation should be a sterilized glass jar, kept air-tight and in a cool place. A good plan practised by some of the best makers is to keep out an extra sample, seal it air-tight and put it in a safe place. Should anything happen to your starter through the night by being upset, or by steam-pipe bursting, you always have a mother culture in good condition. A culture in a good condition when you open the can in the morning and find the whole mass firmly coagulated, no liquid to be found on top, and having a mild, acid flavor, pleasant to taste and smell.

Little oversights are generally the beginning of serious mistakes. The time has come when we must study our cultures more, to know how to do with them, and, what they will do for you. If you get a good culture or a poor one, you must know just what you are handling, and what results you are going to get from the operation. A culture properly prepared and cared for, and judiciously used, has been found a benefit to the dairy industry. This paper was prepared by Mr. E. H. Hart, Dairy Instructor, Ingersoll, Ont., to be read at the convention of the Western Ontario Dairyman's Association. Owing to a severe cold, Mr. Hart was unable to read the paper.

### Cheese Exporter's Views on Whey Butter

Editor, The Canadian Dairyman and Farming World.—We cannot understand how patrons can be tempted into buying a "whey" butter, unless they want this butter produced for their own table use. No one in the cities would use such butter, even for cooking purposes, if they knew it. We doubt whether the government would allow this, as the tendency would be to injure the quality of the cheese, and therefore the factory might be compelled to brand its cheese "skims" in large letters, according to law. In our opinion, any cheese factory that manufactures its cheese in such a way as to leave butter in the whey to make into butter, is not making as many pounds of cheese out of the milk as it ought to, and personally we should be afraid to buy cheese from any such factory. We may say also that we received cheese for a part of last season from a factory whose output we have had for years, and we were surprised to find the quality had deteriorated and



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The Bowl Spins on the Balls Just Like a Top.

By the ingenious arrangement of the three balls of our bottom Frictionless Empire, the bowl of the "Empire" is always kept perfectly balanced, because the point of the spindle axis between the three balls and automatically adjusts itself to the proper center. The bowl spins on these balls just like a top, only at a speed far greater and without a sign of vibration when at skimming speed. This absence of vibration is one reason why the "Empire" is the most accurate running cream separator in existence. Another reason is that the spindle is removable, it can be removed, and at a trifling cost. And every particle of precious butter fat goes into the cream can. In fact, we also utterly guarantee the "Empire" to skim equally as close as any separator in the world. Free Trial and prove it. Write for our Free Daily Book which explains how to make more money out of your cows. It is a valuable guide of information.

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did not understand it until after we had found that the reason was that they were making "whey" butter.

A. A. AYER & CO., Limited.  
Montreal, Que.

### Cheese Factories and Creameries of Canada

The finest piece of work that has been turned out by the Dairy Division of the Dominion Department of Agriculture has just come to hand in the form of several maps showing the cheese factories and creameries of Canada. The work is high class and very complete. These maps should prove extremely valuable. Not until one sees them is it possible to gain any idea of the immense number of factories in Quebec and Eastern Ontario. The factories are shown on the map in such a way that it is possible to tell the cheese factories from the butter factories. The Dairy Division is to be congratulated upon this piece of work.

### Go Slow on Whey Butter

Dairyman should go slowly in the development of the whey butter business. In Eastern Ontario there is considerable agitation looking to the formation of companies for the manufacture of this product. Our advice is to wait while until the question has been thoroughly investigated. While one or two individuals claim to have made a success in this line, it has not been clearly established yet that the business is a feasible or profitable one.

The making of whey butter is not a new idea. Some years ago it was taken up by one or two cheese factories in Western Ontario, and the conclusion reached was that it was not workable, and that the business could not be made profitable for the average factory. If it is feasible at all it must be carried on a large scale. The high price of butter has given an impetus to the movement. But where would whey butter be un-

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der ordinary market conditions? It has not the keeping qualities of the genuine article and would have to be consumed about as soon as made.

**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.

**Who is Right?**

Ed. The Canadian Dairyman and Farming World.—In your issue of February 26, Mr. George H. Barr, while addressing a convention of dairymen at Cowansville, Que., is quoted as saying that Ontario cheese was better than Quebec cheese, and that one defect in Quebec cheese was its loose and open texture. In nine cases out of ten this looseness and openness was the fault of the maker. It is caused by salting the curd too early in the process of manufacture, or to leaving too much moisture in the curd.

While speaking at the Western Ontario Dairymen's Convention, held in Woodstock in January, Professor Dean, of the O. A. C., makes the statement that openness in cheese was not a defect but only a whim of the buyers, (or words to that effect), also that makers were stirring their curds too dry, and that they were holding them too long before salting, thereby losing butter-fat.

Mr. Barr and Mr. Dean are considered to be experts in the manufacture and judging of cheese, men who have both been dairy school instructors in Western Ontario, and as such, young members often look to them for advice. If we are to have a uniform grade of cheese made in Ontario we cannot follow the teachings of both these teachers. Will some old cheese makers express themselves on this question.

Signed, Young Cheese Maker.

**More Information Needed, on Whey Butter**

Editor, The Canadian Dairyman and Farming World.—It is unwise for cheese factories to incur the expense necessary to prepare for the manufacture of whey butter without having more accurate information than they have in regard to the net profits which may be derived from this branch of dairy work. There is no accurate information as to the real quality of whey butter. Much has been made of the fact that a sample

of this butter was given first prize in competition with one other exhibit of creamery butter at an exhibition in Eastern Ontario last fall. It is not generally known that the judge, and others who examined it, said that the creamery butter was a very poor sample.

It is likely that if the manufacture of whey butter continues that there will be a demand for legislation compelling the branding of whey butter as such. It may be necessary to do this to protect the reputation of Canadian creamery butter. Even though whey butter may be as good as poor creamery butter when freshly made, there will always be the danger of the sentimental effect on the trade, which is an important consideration.

In view of the lack of information on this subject, I propose, as early as possible this coming spring, to make some careful experiments with a view of determining the probable quantity of whey butter which can be made from a given quantity of normal whey and to make careful tests as to the quality of such butter, including composition, flavor and keeping quality.

My advice to the factories would be, not to rush into this matter until it has been more carefully investigated. Those engaged in the manufacture of cheese sometimes forget that they are indirectly interested in the success or failure of the buttermaking industry. Anything which will injure the butter-trade, will also injure to some extent the industry of cheesemaking.

There is another phase of the question which is important. The average cheese factory is not a very suitable place for the manufacture of butter and I am afraid that the conditions would be such as to make it very difficult to produce a satisfactory article of butter of this kind. The plan of sending the separated whey cream from the factory to a central point for buttermaking, is a better one than that of the buttermaking done at the factory.

I would remind dairymen, however, that the making of whey butter is not a new thing as many seem to think. It has been tried at several places during the last 20 years, but for some reason or other has always been abandoned.

J. A. RUDDICK,

Dairy and Cold Storage Commissioner, Ottawa.

**Makers and Patrons Should Co-Operate**

There should be co-operation between the makers and the patrons of factories. In fact this must be true all along the chain of the dairy industry in any community. It has been tried at several places during the last 20 years, but for some reason or other has always been abandoned. The maker should be able to select his milk, and make the most out of it. He should be clean about his person, and keep his factory and his surroundings clean. He should be able to instruct his patrons how to care for and handle their milk, and do it in a manner as not to give offence. More good can be done by kindly talk than harsh words. If a patron will not do what is demanded of him by quiet talk he will surely not do so by harsh language. In engaging makers get the best men that you can get, and pay them a good salary. Give them full control, and you will find that you and the patrons will be "money in pocket" by the improved product, and by the saving effected by getting everything out of the milk.

Patrons of factories should make it their business to see that nothing but first class men or skilled men should make their cheese. Thousands of dollars are lost to the farmers of Manito-

**TWICE AS MUCH WITH THE LABOR**



That's the pleasant surprise that awaited me a U.S. Separator to skim my milk. The "old way" meant little profit—much work. Now they say it's "just the other way about"—Big Profits—Little Work. Your money is in the cream. Why not get it all out? You can. The

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**A YOUNG GIRL CAN RUN IT!**

**Move Slowly About Whey Butter**

ba every year, because the cheese makers do not know how to make good cheese. Some of our factory owners, however, will search all over the whole Dominion for the cheapest man they can find, and they get cheap work in return. These men waste more than three times their value, and are usually only retained one season. I have seen good milk, as good as ever was taken into a factory, spoiled, just because of the incompetence of the maker.

There are too many makers working for the money they can make out of the business. They never consider the interests of their patrons or employers. There are some makers who would not be any good, if they were at the business all their lives. Up to the time that the milk arrives at the weigh stand we can hold the producer responsible, but after that the maker must shoulder the blame. If his cheese is off, and if the maker is a skilled man, and has selected his milk correctly, he may ruin the flavor and texture by the addition of too much bad flavored starter. I have found this to be the case only too often. The maker also may have given too much acid, or left too much moisture at dipping. Many ruin their curd by under cooking and leaving too much moisture.

A cheesemaker must have an ideal, he must have a definite knowledge of what he is going to produce, then go ahead, and do it. Many fail to finish their cheese neatly. Often a well made cheese is spoiled (in appearance) by being roughly finished. I say finish your cheese and keep them clean, even if the inside is not of the best, they will sell on appearance, which will make up the difference.

Editor, The Canadian Dairyman and Farming World.—Some experiments in the manufacture of whey butter have been carried on at Kingston Dairy School this winter, but our investigation has not been sufficiently prolonged to warrant us in coming to any definite conclusion further than it would appear that in the average factory practice, from 5 to 6 lbs of butter are likely to be obtained from one ton of whey, and with proper care and attention in the manufacture of the butter. This butter is of very good quality for immediate use, but there is a suspicion that it is lacking in keeping qualities. My advice to factorymen who have not already the equipment for making butter and who are thinking of going into the business is, to move slowly until something more definite is known about it. I would suggest that experiments be conducted this season in some combined factory, to ascertain the cost of production, keeping qualities, etc., under the average factory conditions before any definite conclusion is arrived at.

G. G. PUBLISHOR,  
Chief Instructor, and Sanitary Inspecter,  
Kingston, Ont.

**Cheese factories for sale should be advertised in our For Sale column.**

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A prominent physician, famous for his success in the treatment of kidney and bladder diseases, attributes a great deal of his success to the following simple vegetable prescription:—

One ounce Fluid Extract Dandelion;

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Four ounces Compound Syrup Sarsaparilla;

Mix, shake well, and take in teaspoonful doses after each meal and again at bedtime.

Your druggist can supply the ingredients, and the mixture can be prepared at home at a very little expense.

This, the doctor says, acts directly on the kidneys, assisting them to filter the poisons from the blood and expel some in the urine, at the same time restoring the kidneys to healthy, normal action.

We feel that a great many readers will be pleased to learn of this simple prescription, and knowing the ability of the physician whose formula it is, we do not hesitate to recommend it to any sufferer.

## Mrs. Burton Preston's Aunts

MRS. BURTON PRESTON and his wife, sat on opposite sides of the table; a student lamp in the centre gave light for both. Mr. Burton was reading the news from his agricultural journal, and his wife, with pen and ink, and paper, was about to begin a letter.

"Well, which shall it be?" his wife asked. She had written this, "Woodstock, Ont., January 3, 1908. Dear Aunt —," and waited to know which aunt's name she would fill in. She tipped her pretty young head from side to side, viewing her penmanship with a satisfied air.

"Which ever one you want. It doesn't make any difference to me," he replied with unconcern.

"But, Burton, I want to invite whichever one you want."

"And, as I have never seen either—"

"But you have heard me tell all about them. You ought to know which you would like to see most."

"Which do you think would like most to come?"

"They would both like to come. They're both home, and I know them. I want them both to come some time. I want them to see how nicely we are situated. If it wasn't for that foolish quarrel, I'd have them both come to the meeting now. It is fifteen years since they have seen each other or either heard directly from the other. It's a shame for two old people to act so. They would forgive me, and I'm almost afraid to invite one for fear the other will hear of it, and be offended."

She waited for her husband to say something. He had apparently just finished an article, and was turning his paper to find something more.

"Burton!" she cried. "Put down your paper, and help me to decide."

"Better not invite either," he said.

"But, I'm going to!" she declared. "I am going to have one come now and make us a visit, and the other I shall invite later. I want them to see our home, and to meet you and get acquainted. Now, tell me which one I am to invite."

She dipped her pen into the ink for the third time since writing the last word. He cast his eyes elmward.

"Let me think, he murmured, fumbling in his pocket. Then drawing forth a penny he flipped it lightly. Darting a quick look at it, as it fell on the table, he said decisively, "Well, Boudieca!"

"You think you would like most to see Aunt Boudieca?" she repeated, and wrote the name with entire satisfaction.

For an hour and a half, Burton Preston read his paper without any thing further to disturb, except his wife's noisy pen. Then she straightened up, examined the half-dozen sheets of note paper, glanced at the clock, and cried, "Why, Burton, it is after ten; I shall have to put this away and finish it to-morrow."

The next evening after tea they drove up to town. Just as they were about to start, Mrs. Preston exclaimed, "Oh, I mustn't forget my letter," and ran to the clock shelf for it.

"Have you a stamp, dear?" she asked, handing the envelope to her husband, who forthwith stamped it and placed the letter in his pocket.

The business at the Woodstock post office is not large enough to give the town free delivery, and it is quite the custom for people to go for their mail in the evening. Mrs. Preston withdrew her hand from her husband's arm as they entered the building, and,

stepping ahead, peeped into their box. It was rather high, and she was obliged to stand on her tip-toe to do this.

"We have got something, Burt," she said, turning to him with a pleased expression as he came up.

There were two letters and a circular for her husband and one letter for herself. They withdrew a little from the path of those coming and going for Mr. Preston wished to examine his mail at close. His wife improved the opportunity to read her letter also. He had gone well into the second letter when there came a wild cluck at his arm and a gasp from his wife.

"Burton, have you mailed that letter?"

"What letter?" he asked, startled by the expression on her face.

"My letter! To Aunt Boudieca Bumpstead!"

"No, I guess not. No, here it is," and he handed it to her. "Why, what trouble, Edna?" he asked, showing no little concern.

"This letter," she replied, holding up the one they had just taken from the post office, "is from Aunt Nathalie Bumpstead. She wants to come and make us a visit during the missionary meeting, if it is convenient. Of course it is convenient, and I must put her a postal card, saying so. But this letter to Aunt Boudieca cannot go now."

"Why?" she echoed. "We can't have them both once!"

Her husband still looked blank. "On account of that quarrel, Burt!"

"Oh! oh! I had forgotten the quarrel."

Mrs. Preston procured a postal card at the stamp window, and wrote it at the little desk which is placed against the wall for the convenience of the public.

As they were leaving the post office, they met their minister, Rev. Samuel Knox, and stopped a moment for a word with him. Mrs. Preston said of the expected visit of her aunt, and requested him to call. He said that he would be very happy, and with a word more they parted.

The wife was absorbed in thought for some time after their return. At last she declared: "It's too bad to lose all that letter! It was a real nice one; there was so much in it. Aunt Boudieca will never know what she missed."

"We need not waste the stamp at least," said her husband; "and I should think there would be much of the letter you might use at another time."

"Maybe I can," she replied brightly, and rose to get the letter.

He heard her fumbling about in search of it, and one or two smothered notes of dismay came to his ears. At last she reappeared.

"I can't find it anywhere, Burt!" she murmured. "It can't be that I mailed it! No; I know I didn't. But I've lost it. It isn't anywhere about me. I must have lost it on the way home. But I'll look again."

She disappeared.

"Was there anything in it about me?" he called.

From the depths of somewhere came the muffled reply: "It was almost all about you."

When she came back there was a look of tears in her face. The letter was not found.

Aunt Nathalie Bumpstead came early to the missionary meeting, as she wished to spend a few days in which to get acquainted with Edna's husband. She was a slight built woman of about sixty years, with but

few wrinkles in her face. Her bearing was defective, however, and she spoke in a feeble tone. Gray predominated in her hair, which was combed very plain. She was warmly welcomed by the young married couple, and they took much pride in showing her about the house. The many little conveniences were long dwell upon, and made the most of. The grievances of house keeping were talked about, and Aunt Nathalie and Edna compared notes, much to the advantage of the niece.

During the day, when Burton Preston was away at his work, the two discussed him. Edna talked about him with all the affection of a fond young wife. She spoke of his faults with the air of pride; they were so manlike. Aunt Nathalie said that she liked him; she could see that he was a good man.

"Do you know," she said in her feeble tones, "I like the way he asks the blessing at the table, and that there was something in that that smote Edna, and she inwardly determined that Edward should keep it up after Aunt Nathalie went back."

It evening before the opening of the missionary meeting, the young people were invited to a small gathering. Edna had about given up going, for she felt that it would not be courteous to leave Aunt Nathalie. But the fact came to her mind that she and she would hear nothing of her remaining at home. She was not afraid to stay alone; and rather insisted on the others going.

It was perhaps an hour and a half after they had gone that a carriage drove up and stopped before their house. Aunt Nathalie's infirmity prevented her from hearing it and also the rapping which soon followed at the front door. But when the bell rang she gave a little start and rose to answer the summons.

"Good evening," she said, on opening the door; and then seeing that a woman was standing there, continued: "Won't you walk in?"

"Do you know," Burton Preston here?" the other enquired.

"Ma'am" said Aunt Nathalie, placing her hand back of her ear and turning her head so as to hear better. Then, in answer to the question repeated in a louder tone, she said: "Yes, m."

The stranger had stood with satchel and umbrella in one hand, and now she stooped to pick up a box and bundle which she had set down to ring the bell.

"I am Mrs. Preston's aunt," she informed, as she entered the house.

"Are they at home?"

"No'm. They're out spending the evening," Aunt Nathalie replied. To herself she mused: "Sakes; I didn't know as he had an aunt; leastway, on that was a comin' now."

"I guess you'll surprise 'em," she continued aloud. "Let me take your things."

"No. She was expecting me. I had a letter from her," Aunt Boudieca answered.

There was some resemblance between the sisters, but it was not striking, though before the weak was out they had been told a number of times that they were perfect pictures of each other. Aunt Boudieca was larger and younger. Her hair was about as gray as the others, but she wore it banged and frizzed. She wore nose glasses, but on her arrival had mislaid them. Aunt Nathalie felt that the duties of hostess devolved upon her in the absence of the others, and acted accordingly.

"Have you been to supper?" she asked as soon as she had disposed of the newcomers's belongings.

"No. I haven't had a bite of anything but my fuff for me. I am not one bit hungry." Aunt Boudieca shouted one moment as if talking to a person across the street, and the next, for-

getting, talked so low that the other barely made out what she said.

"You'll just make a cup of tea for you," Aunt Nathalie said.

"Thanks, a cup of tea will be a great plenty."

Aunt Boudieca disposed herself in an easy chair in the parlor, and began to take notes.

"Seems to me Edna's putting on a good deal of style," she reflected. "She didn't do that when she was'n't doing her own housework." Her girl seems older than common, that work out. I'd hate to yell everything to her that I said. She seems sensible; young girls ain't always. She knows how to treat folks polite. I don't see what I've done with my glasses!"

She rose and examined the curtains as best she could with her naked eyes, and the dim light, stooped and carried her hand critically over the carpet, then felt of the upholstery.

"Edna seems to have done well, as far as the things goes," she commented, glancing at the pictures on the walls, and taking in the other furnishings of the room.

Presently Aunt Nathalie reappeared. She made a little noise in her throat, and began differentially: "Excuse me, what may I call your name?"

"Bumpstead, Miss Bumpstead," replied Aunt Boudieca in her ordinary tone; "beg pardon, did I understand MISS?"

"Yes, I said Miss Boudieca."

"Well," continued Aunt Nathalie, turning and leading the way, "if you will walk out now, Miss Pumps, your tea is ready."

Aunt Boudieca did not notice the mistake that had been made in her name, and she immediately rose at once, and walked out. Besides the tea, which would have been a big plenty, there were some biscuits, cold chicken, and leading the way, a dish of blackberries and cream, and full justice was done to it all.

Later the two sat in the parlor, silent for the most part, waiting for "Do you know," Burton Preston here?" the other enquired. "Ma'am" said Aunt Nathalie, placing her hand back of her ear and turning her head so as to hear better. Then, in answer to the question repeated in a louder tone, she said: "Yes, m."

Edna came to her husband quite early, and said she thought that they ought not to stay longer; Aunt Nathalie was home there alone. She had been real good to excuse them, and let them come, and it would not be right for them to take advantage of her.

As they turned in at their gate, the partly drawn curtains gave a glimpse of the parlor, and Edna caught a glimpse of two forms.

"Why, Aunt Nathalie has company," she exclaimed with some astonishment; I wonder who it can be. Keep quiet, I am going to take a peep at them. She added, with the air of a frolic as she tip-toed her way to the window.

In a moment she came flying back to her husband.

"Burton, Burton," she gasped, "it's Aunt Boudieca, and they don't look as if they ever quarrelled."

Concluded next week

## Spring

Gentle Spring in sunshine clad,

Well dost thou thy power display!

For winter maketh the light heart sad,

And thou, thou maketh the sad heart gay.

He sees thee, and calls to his gloomy train,  
The sleet, and the snow, the wind and the rain;  
And she, she thrink away, and they flee in fear,  
When thy merry step draws near.

—Longfellow

**The Gentle Voice**

If a man will accept the opportunity, he may have every animal about the farm, except the mice and rats, making friends with him. Some people think a cow is too stupid to know good treatment from bad. Such people are stupid. A cow, a calf, a sheep, even a pig, will show their pleasure at being talked to in a gentle voice, almost as much as will a horse.

One of the most pleasant memories of my boy life on a farm is that of the Poland china pigs coming along and lying down by my feet to have me curry them with a corn cob, or poke them with my shoe; and the particularly pretty Shorthorn calves, that I had petted, coming up for their rubbing and jealously hooking away any other animal that was getting their share of caresses. I have now a Jersey cow that cannot abide having me pet any other animal in the yard, and a grown-up Shropshire lamb that noses in for the lion's share of barnyard favors. The gentle voice and the friendly mind make way smooth all around the farm. I'd rather carry on conversation with good barnyard stock than with some men and women I have met. It is more elevating and calming to the mind than the other.

The gentle voice in the house is even yet more of a success than it is at the barn. The soft answer that turneth away wrath; the quiet voice that speaks of self command, and good will, and patience—all these go to make for peace. Mother and the girls with the gentle voice can tame father and the boys before they know what has happened to them. You can have them all coming your way if you will use them as wisely as the wise farmer uses his barn friends. Maybe you knew this long ago and have practiced it to perfection; but it does good to talk it over anyhow. —Frank N. Milton, Leeds Co., Ont.

**Cleaning Boards**

All white boards, those not varnished, require a soap and water wash, if one wishes to keep them in proper condition.

The choice of a scrubbing pail seems a very small detail in this work, but if one of the paper fibre buckets is selected, the work will be lighter, for the galvanized pails—and, indeed, those of wood—are much heavier, and if a large floor space has to be gone over, so much lifting will

soon tire the worker. Again, pails other than the fibre, are apt to leave a dented ring on the floor.

For mopping, woolen is the best fabric, and cold winter underwear is splendid for this purpose. Summer underwear makes excellent rubbing cloths for the final finish. Wool does not give so good a gloss as the latter, for it usually leaves lint.

For scrubbing, a hair bristle brush should be provided, and soap containing naphtha is perhaps the best kind for this purpose. Only warm water, not hot, and thus avoid "washerwoman's hands," that are the result of working in very hot water.

**LABOR SAVERS**

Naphtha is a good agent in removing grease spots. Keep from contact with fire, as it is easily ignited. Common washing soda, too, is equally active in the treatment, but this calls for very hot water, and using these two wrinkles and shrivels the hands.

Being in readiness the process is as follows: The woolen cloth is half wrung out of the warm water and the space to be cleaned is wet with it. Too large a space should not be taken at once, certainly not an arm's reach, or the result may be a dark outline to each patch. No more should be taken than can receive the full strength of the arm in rubbing. Now set the brush and rub soap on it. Scrub the boards by the grain of the wood and where there are spots to be removed, by a rotary motion also. Partly wring the woolen cloth and wipe off the dirty water. Then wring dry, wiping out every trace of soil, and, finally, rub with the dry cloth.

**A Broiling Success**

Mary B. Keech

The sirloin and porterhouse cuts are the most desirable for broiling. The meat should be of a bright red color, dry and elastic. The fat should be yellow and firm. If the steak is kept on ice for 24 hours, it will be much more tender.

Do not wash the steak, but wipe it carefully with a wet cloth. Have plenty of bright, live coals, and never broil until the meal is just ready to serve.

The steak should be cut from  $\frac{1}{2}$  to  $1\frac{1}{2}$  inches thick, and all of an equal thickness. Have the skillet or wire broiler well heated, and just before putting in the meat, rub it with a piece of suet. Place the meat in the

broiler, with the fat edge near the handle, then the drippings will run down over the meat as it cooks. Broil from 6 to 12 minutes, according to thickness. Turn every 10 seconds to prevent the juice from escaping.

When done, remove to a hot platter and sprinkle with salt, pepper and generous amount of butter. If a brown gravy is liked, pour a very little boiling water into the skillet, while it is very hot, and pour over the meat. If a wire broiler is used, of course the gravy cannot be made.

Garnish with sprigs of parsley, thin slices of lemon, tomatoes or toasted bread.

**Plan for Summer Flowers**

It is time to be looking over flower seed collections and planning what to plant to beautify the home yard for the coming summer, no matter how humble they may be—indeed, the more humble and plain they are, the more need of embowering it with flowers. The sod house and the prairie shack can even be planted all about with seed of climbing, running vines that will with a little care soon conceal even their ough outlines with a wealth of foliage and blossoms.

Plant vines also about the outbuildings and every unsightly object, and in beds, or rows, or corner, especially prepared for them, grow some of the more beautiful flowers to delight the eye, not only where they grow, but also to cut for indoor enjoyment in vases and bowls, on the dining table and a stand or shelf in the living room.

Give the children each a little flower bed to be cared for entirely alone by each small individual, and their delight and pride in their work and flowers will know no bounds.

The garden should be planned now and seeds of some varieties of both flowers and vegetables sown indoors to grow plants that may be ready to set out by the time the ground is warm enough, and which will bloom and ripen early. Send for seed catalogs, advertised in our recent issues (March 4 especially), look over the seed box, decide what must be ordered of both flowers and vegetables and send for them as soon as possible. You will thus be prepared to assist Nature in her spring work when her creative forces shall have been freed from the bonds of winter. Plan to plant flowers everywhere.

**Our Girls and Boys**

We are glad to have a column once more for our girls and boys. Some of you have mentioned a department, but now we shall try and have a column for our young people in every issue, and the editor trusts that you will send in your letters as formerly. The letters regarding the Winter Fun Contest are still coming in, but we have not received as many photographs as we would like. Send in all the photographs you can. The more the better. Letters will be received until the end of March.

**PRIZES FOR BOYS**

Boys who would like to earn a setting of eggs, or a pure bred pig, cannot do better than to send to us for sample copies of the paper, and try and secure new subscribers for us in their neighborhood. Every boy who sends us 4 new subscriptions at \$1 each, will be given a setting of eggs; and for 7 new subscriptions he can secure a pure bred pig, either Berkshire, Yorkshire, or Tamworth. Who will volunteer to send us subscriptions to secure these premiums? See our offer in last week's issue.

**A Good Bargain**

A very poor sportsman, who had gone out for a day's shooting, was returning in the evening with an empty bag, when he saw a man, apparently a farmer, leaning over a gate, gazing at some ducks in a pond.

"What will you take for a shot at those ducks?" asked the Nimrod. The man stared but did not reply.

"Will half-a-crown satisfy you?"

The sportsman nodded, and pocketed the coin gleefully.

Bang, went our friend's gun, and immediately after, six of the ducks had ceased to find any pleasure in life.

"I think I have made a good bargain," said the man with the gun, as he packed the bodies of his victims in his bag.

"So have I," said the countryman dryly, "for them there ducks ain't mine."

**Wise on Poultry**

The boy who wrote the following composition is evidently of an observing turn of mind, and may one day become a noted poultryman.

"Hens is curious animals. They don't have no nose, nor teeth, nor no ears.

"The outside of hens is generally put into pillars and feather dusts. The inside of the hen is sometimes filled up with marbles and shirt buttons and such.

"A hen is very much smaller than a good many other animals; but they'll dig up more tomato plants than anything else ain't a hen.

"Hens is very useful to lay eggs for plum pudding. I like plum pudding. Skinny Bates eat so much plum pudding once that it set him into the colicery.

"Hens has got wings and can fly when they are scart. I cut my Uncle William's hen's neck off with a hatchet and it scart her to death.

"Hens sometimes make very fine spring chickens."

**Was the Boy Cured**

An elderly gentleman was riding on a street car the other day. A boy began to laugh, and laughed so he couldn't stop. The old gentleman told his mother that the boy needed a spanking, and she replied that she didn't believe in spanking on an empty stomach; whereupon the man said: "Neither do I; turn him over."

**THE LITTLE FOLKS CAN HELP MOTHER WASH**



The best washer is always the easiest to work. A child can run the "1900 GRAVITY" WASHER wash a tubful of clothes in six minutes and the garments will be cleaned better in that short time than a strong woman could do it by hand in an hour or more.

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The clothes remain stationary, while the tub swings to and fro, up and down, thus enabling the water in every direction and squeezing it through the meshes of the clothes. Women injure the finest laces and linings, yet will wash heavy blankets and rugs with ease and rapidly.

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Address me personally, **F. W. D. BACH, Manager** THE 1900 WASHER CO., 555 Yonge St., TORONTO, CANADA.

The above free offer is not good in Toronto and suburbs—Special arrangements are made for this district.



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## THE COOK'S CORNER

In an early issue, we desire to run some special recipes on bread making. Readers are requested to send us any particular recipe they may have on bread making, either wheat, rye, rye, Graham, or corn bread. All good, reliable recipes. If you have a bread-mixing machine, send it to us at the same time. Address all letters to The Household Editor, The Canadian Dairyman and Farming World, Peterborough, Ont.

### POTATO CAKES

Two cups cold mashed potatoes,  $\frac{1}{2}$  teaspoon salt, red pepper, 1 small onion chopped fine, or 1 tablespoon chopped parsley, 1 egg, 1 tablespoon butter. Fry till brown.

### APPLE CUSTARD PIE

Line a deep dish with nice paste; put in sliced apples, and sweeten. Bake a custard with 1 egg beaten slightly little salt, add a little more sugar, then pour slowly over the egg. One cup hot milk, pour over apples and grate a little nutmeg over all; bake till done.

### BEEF SALAD

One qt beets boiled, 1 qt raw cabbage, 1 cup horseradish, 1 cup brown sugar, 1 qt little salt. Chop all fine and mix together. This can be put in jars, and kept where cool.

### SAVORY MOULDS

Mince cold meat, put in a bowl with  $\frac{1}{2}$  cup bread crumbs, a little left over gravy, a little chopped onion, 1 tablespoon chopped parsley. Season with pepper and salt; mix well and moisten with beaten egg. Butter small moulds and fill with mixture. Bake and serve with brown gravy or tomato sauce.—Ethel Sherrington, Brant Co., Ont.

### DELICIOUS COOKIES

Mix  $\frac{1}{2}$  cupful of sugar with a piece of butter the size of a medium egg,  $\frac{1}{2}$  cup of milk,  $1\frac{1}{2}$  cups of flour, 2 level teaspoons of baking powder, a little essence of lemon. Roll out, sprinkle with sugar, cut with a small glass and bake quickly in hot oven.

### DOUGHNUTS

One cup of sour milk, 1 cup of sugar, 1 egg, 1 teaspoon soda, 2 tablespoons melted butter, a little salt and cinnamon. Mix very soft. Roll in rings and fry in hot lard.

### OLD COUNTRY OATMEAL CAKES

One half pound granulated oatmeal,  $\frac{1}{2}$  teaspoonful salt,  $\frac{1}{4}$  teaspoon soda, 2 teaspoons melted dripping. Mix oatmeal, salt, soda and the drippings melted in hot water. Mix in a soft paste with enough hot water. Sprinkle the loaf well with oatmeal, knead well, using plenty of meal to keep it from sticking. Roll out thin and cut in cakes, any shape preferred. Bake in a hot oven till brown.

### RICH OATCAKES

One pound granulated oatmeal, 2 tablespoons, heaped, butter or lard,  $\frac{1}{2}$  teaspoon soda,  $\frac{1}{2}$  teaspoon salt; a dessert spoon of sugar. Mix all the dry ingredients together; put the lard in a cup and pour over boiling water to melt it, and pour in with the above mixture when melted. Make into a fairly stiff dough and proceed exactly as for plain cakes. Warm in the oven before using.

### FEATHER CAKE

White sugar 1 cup, butter  $\frac{3}{4}$  cup, 3 eggs, flour 2 cups, 2 teaspoons baking powder, flour to suit.

### JELLY CAKE

One egg; 1 scant cup sugar,  $\frac{1}{2}$  cup sweet cream, 2 teaspoons baking powder, and 1 scant cup flour.

### LEMON BISCUIT

One cup lard, 2 $\frac{1}{2}$  cups sugar, 2 eggs, 1 pt. sweet milk,  $\frac{1}{2}$  cup lemon oil,  $\frac{1}{2}$  cup ammonia, a pinch of salt. Dissolve ammonia in part of milk. Mix quite stiff.

## Feeding the Baby

Don't worry, but trust the baby. He is not half so ignorant and helpless as he looks. In fact, if you will study his little physiognomy carefully, you will see that he is not worrying in the slightest about the situation, and is perfectly sure of himself. The baby knows exactly what he wants to do at any given time, or under any given circumstances, and in nine cases out of ten, if you will let it do, under reasonable limitations pretty much what it wants to do, you will not go far wrong. A baby knows when he wants to eat, and is provided with an excellent and most musical apparatus for conveying that fact to your apprehension. He knows what he wants, and will reject vigorously what does not suit him. And you may be sure that he knows far better than most adults when he has had enough.

### EARLY FEEDING

This faculty is present from his very earliest appearance upon the stage of life. During the first three days of his existence the healthy baby cries but little and sleeps almost constantly; and we have now discovered that during this period he does not only require no food, but is better off without it. He is still digesting and living upon the nourishment in his blood derived from the veins of his mother, and until that process is completed he does not require any stomach is a foreign body.

process in one generation. Not only is the natural supply a far better food, but it is infinitely freer from risks of contamination and the conveyance of disease.

The greatest pains, and if necessary, considerably prolonged delays, are well worth while to secure this source of supply, even if only partial. If, however, the source cannot be made available, then cow's milk furnishes a fairly satisfactory substitute.

Woman's Home Companion.

## Money in Canaries

A merry disposition, with sound, common sense, makes the plainest person, and the most humble home attractive. There is no better inspiration to modest merriment, than a happy, and healthy canary bird. It is a regrettable fact that in more of our farm homes, are not found canary birds. Nearly every farm home has its flock of healthy, clean fowls, and it is indeed hard to over value the chicken hobby. There is a great deal of work in keeping poultry, and there are many who start out to keep poultry every year, enthusiastic in their new work, and who run against some hard experiences, fail to make good, and lose money in the enterprise.

Why not start keeping canaries on a small scale? Unless keeping canaries, they require no large run, but



FINDING HIS FIRST TOOTH

The impression that colic or "colicness" in a baby is a natural characteristic, is chiefly due to the senseless insistence of officious nurses and anxious mothers upon crowding things into the baby's stomach during his first three days. There was another clear indication on the part of Nature, and she kept it from being open minded enough to see it, in that there is no natural supply of nourishment for the child until the close of these three days. The horrible things that are poked into the unfortunate baby's mouth in order to correct this stupid oversight on the part of Nature, and keep it from starving to death, would almost stagger credulity.

### WHAT TO FEED

His faculty of knowing what he wants in the way of food, is equally to be trusted. He is largely a creature of circumstances here, and if what he really likes doesn't happen to be offered to him, he of course can indicate no preference for it. He vastly prefers Nature's own source of nourishment, and is a thousand times justified in his preference. Nature has taken a quarter of a million years in fitting a cow's milk to grow a baby, but a calf, and a mother's milk to grow a baby, and we cannot expect to completely reverse the

on the other hand, may be kept in the living room, if not too many are kept as a starter. They are an addition to any farm home, and apart from their song they are interesting little pets, and will soon become a part of the household, which one will be loath to give up. There are few persons who are not appealed to by the little golden singers.

The care of the birds is far more pleasing for women than that of chickens, and attended to with much more comfort, than the care of the latter. There is no going out in cold weather to feed the birds, as with the chickens, which, rain or shine, have to be fed. The coops and runs are far more disagreeable to keep clean, and in proper sanitary condition, than the little homes of the canaries. There is no disagreeable task of killing the birds, as in the case with the poultry, which task usually falls to the man on the farm, no matter how busy, and if busy, or away, has to be left until his pleasure, before being attended to.

When necessary to part with the canaries, there is no such ordeal to be gone through. When one has established a reputation for raising fine singers, there is no difficulty in getting rid of the birds, and usually the demand is far ahead of the supply.

**Asked and Answered**

Readers are asked to send any questions they desire to see in this column. Make them brief. The editor will also reply to some as quickly and as fully as space will permit. Address all questions to Household Editor, Canadian Dairyman and Farming World, Toronto, Ont.

When is the best time for me to plant sweet peas?—Ollie Burns, Halton Co., Ont.

Plant your peas as soon as the ground is soft. If they can be planted in a sheltered spot, the earlier they are put in the better, after the danger of frost is gone.

How can I clean my baby's white bear skin coat?—Mrs. Horner, Quebec.

Beat out all the dust from the coat and hang it in the wind for some hours. Then lay it on the floor of a room you seldom use and cover it with dry flour. Rub this into the coat as you would suds, rubbing between your hands, and working with your fingers down to the roots of the fur.

Cover with a clean cloth and leave all night with the flour in it. Next day take out doors, shake out the flour, hang on a line and whip on the wrong side until every particle of flour is dislodged.

What will remove the yellow color from my piano keys?—Mrs. H. G. Forster, Hastings Co., Ont.

Clean your piano keys, as all old ivory is cleaned. Rub them with soft cloth, dipped in alcohol.

How can I successfully stop rat and mouse holes? I have tried several ways, all more or less defective for the purpose desired. Sledge Long, Manitoba.

Don't use old rags and papers. Mangle. Try plaster of paris. Mix up a small amount with water, and fill up the hole as quickly as possible as the mixture hardens rapidly after being wet. Hard soap is sometimes used for stopping the holes, but it is not sanitary. Why not tear out the woodwork and board up the holes altogether?

I am planning to give a party for one of my little girls, and want to amuse them a portion of the time by blowing soap bubbles. Is there any special way to make the bubbles large and also, that will make them last longer?—Mrs. Galbraith, Hastings Co., Ont.

To make bubbles that can be blown big, and will last, take a piece of pure white Castile soap, about the size of a walnut, and cut it up in a cupful of warm water. Then add a teaspoonful of glycerine. Strawberry juice will make the bubbles pink; orange juice will make them yellow.

What will take the white spots off furniture and not injure the polish?—Mrs. A. S. Walker, Nova Scotia.

Rub the spots well with spirits of camphor. You can also remove ink stains from furniture, by rubbing them with chloroform.



To get full value out of your food use Bovril in its preparation. Bovril stimulates the digestive functions and is itself a nutritious food.

**Cleaning Day**

Open windows, opposite each other if possible, so as to have a current of air to carry out the dust. The room will then be ready for actual sweeping with the broom.

Grab the broom handle in the middle with the right hand, letting the left hand be near the top, and give short "pushy" strokes as you sweep, beginning always in the dark corners, and edges of the carpet, and sweeping to a common center. If the carpet is thick, a small white broom will remove the dust from the edges near the baseboards much better than a large broom, and the corners are far more easily cleaned with the smaller broom.

Sweep towards the middle of floor, bearing down considerably, and sweep from you, keeping the broom close to the dust. Do not give long strokes for that distributes the dust and sends it flying.

After the dust has been collected into the dustpan, run the carpet-sweeper, if you have one, over the carpet to remove the fine dust, which can only be gathered in this manner. Then take a good-sized cloth, wet in tepid water, into which a few drops of ammonia have been sprinkled and wring it as dry as possible, and wipe up the carpet. The results will be astonishing, for the colors will look bright and fresh.

**HOW TO DUST**

After sweeping, let your room air, and the dust settle for at least half an hour, then remove all dust cloths, used for covering furniture, and the room is ready for settling. Take a chamois skin and wet in warm water, using a very little ammonia. Wipe all mirrors, bookcases, glass over pictures, and lastly the windows. This will serve to keep them free from lint, and the same skin can be used to wipe the wall-boards, for it stands frequent rinsing.

A good large chamois skin can be purchased for fifty cents, and it will last for many months.

Next dust the woodwork and furniture. A soft cotton duster, dampened as you would for ironing, will collect the dust and prevent it from flying, and will not streak the furniture. If the woodwork needs washing to remove soil or finger marks, wet a cloth in warm water, using a little borax or washing compound to soften it. Paint or enamel can be washed in the same way.

**One Woman's Ways**

The best labor saving device I have in my kitchen, is a white enamel sink, and a small pitcher pump on the right hand end of the sink. The top of the sink is extended on the left hand for about six inches, and the back of the sink is covered with zinc. Underneath are three cupboards. In one I keep pots and frying pans; in another, tin, both square and round, cake cutters, etc.; the third cupboard is for boots, shoes and slippers for every day use. This device was built for me by my husband, who is neither a carpenter or a plumber. One of our neighbors helped him one day, and the whole cabinet did not cost more than \$15, outside of the labor, which was performed on wet days when the men could not work out of doors. The steps-it has saved me are too numerous to mention.

**OVER THE SINK**

Over this kitchen device, I have a narrow strip of wood about six feet long, which is nailed to the wall. I use this for hanging such articles as my nutmeg grater, can opener, potato masher, egg beater, apple corer, kitchen spoons, etc. Each has its own nail, and they can be lifted off for use at any time. I consider this little device a great labor saver.

The strip of wood and the nails did not cost me five cents. The time it took to put it up was not more than five minutes.

**USEFUL KITCHEN UTENSILS**

A meat chopper is another of my friends in the kitchen and is a great saver in both time and strength, after using the old time chopping block and knife. I hope to have an apple corer and a raisin seed sifter. I find aluminum kitchen utensils are preferable to any others. They are light to handle and keep clean easier.

I have an up-to-date cream separator and a popular make sewing machine, which I have constantly used for over twenty years. Both of these machines I would not part with, if I could not replace them.

**THE BEST PAPER**

The best body resting and brain reviving device I have in my kitchen is an old wooden arm rocking chair with cushioned seat and padded back to drop into with the Canadian Dairyman and Farming World close at hand to pick up and read at odd moments during the day.—A Muskoka Farmer's Wife.

**Little Help**

Kitchen floors are easily cleaned, if painted with boiled linseed oil. White lead is a most effective agent for mending broken crockery, as it is one of the very few cements that will resist both water and heat.

Washing soda and ammonia is recommended as an excellent preparation, made in the consistency of thick cream, for cleaning the taps in the kitchen, or any nickel work on the range, etc. Wipe very dry after applying, and polish with a soft cloth. It is also one of the most known polishes for cleaning windows, mirrors, and glass articles.

The cuffs of old worn out shirts, if fastened together, make excellent stands for holders. A dark cover put on the outside, completes the holder.

**Facts About Eggs**

Eggs boiled twenty minutes are more easily digested than if boiled ten. They are dry and mealy, and are more readily acted upon by the gastric juice.

An invalid can often eat the yolk of a hard boiled egg when the white can not be eaten with safety.

To prevent bed sores, apply with a feather, the white of an egg, beaten with two teaspoons spirits of wine. Keep well corked.

A yolk of an egg well beaten is a good substitute for cream in coffee. An egg will season three cups.

Horseness and tickling in the throat are relieved by a gargle of white of an egg, beaten with a little turbiulent of warm sweetened water.

Beat an egg fifteen minutes with a pint of water, sweeten with granulated sugar, bring to a boiling point, and when cold, use as a drink. It is excellent for a cold.

Put coffee into the pot, add the white of an egg, and well before putting on the water. Leave the yolk in the shell to be used in a similar manner another time. This makes a strengthening morning drink.

An old-time, but very effective remedy for an obstinate cough, is to place three unbroken eggs in very strong elder vinegar (increase the strength by boiling if necessary) for three or four days the acid will eat the shells, then beat the mixture well, and thicken with honey. Take two tablespoonful meals.

An army nurse gave this remedy for obstinate diarrhoea, which she said was used successfully by the soldiers: Drop eggs in water, crush very small pieces in the water, prevent bursting, then wrap them in wet paper, and roast in the ashes to a fine powder. It will take several hours. Sift and mix a teaspoonful of the powder three times a day.

**In the Sewing Room**

587 INFANT'S CAPE, ONE SIZE  
To be made with hood or collar



that can be wrapped around the tiny infant; and which means warmth and protection, and is fine for the weather. It is one of our most popular patterns ever on the outdoor. This long, protective cape amply fulfills these requirements and is warm and cozy as can be desired.

The quantity of material required for the wrap is 2 1/2 yds. 21, 5 1/2 yds. 27 or 3 1/2 yds. 4 in. wide with 1/2 yd of silk for the lining for the hood. The pattern will be mailed to any address on receipt of 10 cents.

**CORSET COVER 5641**



The simple corset cover is a well deserved favorite and is peculiarly well adapted for use under the fashionable evening waist. Trimming may be either lace or embroidery. The corset cover is made of the finest edges finished with hems and there is heading applied over the waist line. The pattern will be mailed to any address on receipt of 10 cents.

The quantity of material required for the medium size is 1 1/2 yds. 26 in. wide with 1/2 yds. 27 edging and 3/4 yds. of binding. The pattern is cut in sizes for 32, 34, 36, 38, 40, 42 and 44 in. bust measure and will be mailed to any address on receipt of 10 cents.

**CHILD'S PETTICOAT 5654**



Such a little petticoat as this one is all that is needed in every wardrobe. The smoothly fitted construction is comfortable and supports the weight of the skirt. The shoulder straps are made of the finest material and allows free movement. The waist portion is made with a ruffled edge, and the skirt is cut in one piece and mated at its upper edge. The closing is made at the back. The quantity of material required for the medium size (6 yrs) is 1 1/2 yds. 36 in. wide with 1 yds. of embroidery and 2 1/2 yds. of narrow edging, or if two materials are used 7/8 yds. for the waist, and 10 yds. of edge, and 1 1/2 yds. of edge, and will be mailed to any address on receipt of 10 cents.

**TUCKED BLOUSE 5644**



The blouse with blouse is always an attractive one. This one is a model that includes a matching and which is a waist that has almost limitless possibilities. Embroidery can be substituted for lace or the pattern may be made of one material such as inserted tucking, with only a band of insertion finishing the edges.

The waist is made with front and backs, both tucked and joined to the bodice. The closing is made invisibly at the back and the sleeves are of medium length. The quantity of material required for the medium size is 3 1/2 yds. 21, 2 1/2 yds. 27 or 1 1/2 yds. 44 in. wide with 1/2 yd. of 32, 34, 38 and 40 in. bust measure and will be mailed to any address on receipt of 10 cents.



MARKET REVIEW AND FORECAST

Toronto, March 23rd, 1908.—The February statement of the Canadian Associated Banks shows an increase in market loans, which may account for the strengthening of some stocks. The contraction in commercial discounts continues and this may be taken as a sign that the money is still scarce. During the week ending March 19th there were 50 failures in Canada, as compared with 22 for the same week of 1907. Many concerns have kept up during the winter with the hope that spring would bring easier money, but this does not appear to be in sight yet, though the prospects for business this spring are bright.

WHEAT

The wheat situation has not improved any. In fact it is one of the whole not as strong as a week ago. Cables are lower, and the continued large exports from the Argentine gives the market an easier turn in the old and new markets. The Argentine has exported 57,786,000 bushels against 36,000,000 bushels for the same period last year. There is only about four months before we will be in another harvest, and if the reported shortage in the world's wheat supply would not amount to much, though there will likely be a good demand for wheat from importing countries during the next few months. From now on the market will be more or less affected by the condition of the weather. A reported injury to the crop would enhance value at any time, especially the market is dull, no one wants to buy. Earlier in the season those requiring grain, laid in large supplies accordingly. These are not in the market just now. Ontario winter wheat is quoted at 91c to 92c outside and 87c for goods at

COARSE GRAINS

Cats are weaker. At Montreal prices have been owing to large receipts and poor demand. Evidently the demand for seed oats for the West has not improved the market any. Quotations there are 47c to 50c for Eastern Canada oats and 46c to 47c for Western. Oats are rejected on track. North Bay, Oats are quoted here at 46c to 49c on track Toronto, and 46c for mixed outside. Barley quotations have taken a drop and the best quotations here are 65c to 66c in bulk, according to quality. Peas are firm at 67c outside.

QUITE AN IMPROVEMENT

Ed.—The Canadian Dairyman and Farming World has been taken the Farming World for a number of years. I think the change from a semi-monthly to a weekly quite an improvement. The market review section should be worth the subscription price to any farmer.

WM. W. NOSSIE.

Lambton Co., Ont.

FEEDS

The corn market continues to advance under a strong demand. The market is firm here at 75c to 76c for No. 3 yellow American and 75c to 76c a bushel for mixed Toronto. Freight, Mill feeds are in demand with prices firm. Montreal quotations are: bran 83c to 84.50, shorts 82c and middlings 82c to 87c a ton in car. Toronto yellow shorts bran at 45.50. Full cary Manitoba 41c to 42c at North Bay. Shorts are reported scarce at 32c f.o.b. per ton.

HAY AND STRAW

There is no change in the hay situation and prices are the same. Quotations here for baled hay are \$18 to \$17 per ton for car lots on track Toronto, and \$9 to \$10 for baled hay. The farmers' market here loose Timothy is quoted at \$11 and straw at \$10 to \$11 and in bundles \$11 to \$12.50 a ton. For the next few weeks supplies are likely to be scarce owing to the break up of the roads.

SEEDS

Seed prices are firm. Seedsmen here give their selling prices for seeds as follows: Alaska fancy \$1.50 to \$1.10, and No. 1 \$1.10 to \$1.0 a bushel, fancy red clover \$1.50 to \$1.40, and No. 1 \$1.50 to \$1.4 a bushel; alfalfa \$1.10 to \$1.0, and Timothy \$7 to \$8.50 per 100 lbs.

EGGS AND POULTRY

The egg market is coming down and prices are much lower. The supply of eggs here laid is increasing. At Montreal there is a good demand though receipts are heavy. New laid Canadian eggs are quoted there 25c to 26c and American at 21c to 22c. Offerings here are increased over last week. New laid are quoted at 21c to 22c in a cobbler way. The poultry trade in very quiet and prices are largely the same. Turkeys and ducks are quoted at 15c to 17c, young geese and chickens at 7c to 12c and choice chickens at 12c to 14c a lb.

DAIRY PRODUCTS

There is no change in the cheese situation. At Montreal local stocks are fast disappearing and prices are firm. Whites are quoted at 17c to 17.50 a lb. Cable reports are steady, stocks are not tight and holders are not pushing sales. Finest Canadian white is quoted at 63c to 64c, and colored at 62c to 63c a lb. Owing to limited supplies from Denmark, the butter cables are 5c to 5c lower and the market is reported weak. At Montreal, the demand is steady and receipts are light. Grass goods are selling there at 30c to 31c and winter creamery at 29c to 30c a lb. Prices are still very high here though receipts are increasing some. Creamery prints are quoted at 31c to 32c and solids at 30c to 31c a lb. Dairy prints at 29c to 30c, large rolls 30c to 35c and solids 28c to 30c a lb. 75c Toronto farmers' market dairy butter brings 30c to 31c a lb.

LIVE STOCK MARKET

Trade in live stock was firmer at the end of the week, owing to a light run, but general trade conditions about little change, excepting it is in hogs, which has started on the up grade. The quality of the fat cattle offering is about the same as during the winter, too much unfinished stuff. From now on the season is having some effect on trade, especially in Montreal. It is also has some effect upon the local trade here.

At the Junction market exporters sold from \$5 to \$5.50 for choice steers, \$4.50 to \$4.75 for medium steers; \$3.75 to \$4.25 for heavy export butts, and \$3 to \$3.5 a cwt. for light ones. At this market on the local trade, a load of cattle, weighing 1,300 lbs., sold for butchers' purposes at \$4.50 a cwt.

Some choice butchers' cattle sold early in the week at the Junction market at \$4.50 to \$5. At the city market \$4.80 a cwt. was the highest price paid, with load of good cattle selling at \$4.40 to \$4.80; medium, \$4.20 to \$4.35 common.

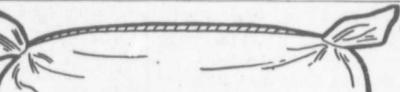
A few feeders are offering short keep feeders of good quality are worth \$4.40 to \$4.65 and medium quality \$4.20 to \$4.35 at \$3.40 to \$3.60 a cwt. Light weight and medium quality lambs have been the rule and the market has been more active, though the bulk of the receipts are of medium quality. Medium to good lambs sell at from \$6.50 to \$7 and selected ewes and lambs in small lots at from \$7.25 to \$7.50 a cwt. Export sheep are worth \$4.50 to \$5 a cwt. for ewes, and light shorn of good quality for butchers' purposes \$5.50 a cwt., and rams \$9 to \$10 a cwt. At East Buffalo, lambs are quoted at \$5 to \$5.25, and ewes \$4.75 to \$5.25, and mixed \$4.75 to \$5.25 a cwt. The hog market is pointed out last week, is on the up grade. The chief cause producing this are the falling off in American killings and competition among packers to get hog. It looks now as if prices would continue to advance. Hogs are getting scarce every day and reports from country points indicate a shortage of young pigs which will influence the market later on. Quotations on Toronto market last week were \$5.40 a cwt. for select, and \$5.20 a cwt. for medium quality lights. Good fat hogs are selling at Montreal at \$5.75 to \$6 a cwt. The highest quote is \$6.30 a cwt. paid for heavy mixed and Yorkers.

TORONTO JUNCTION HORSE MARKET

There were sold the new horse exchange, Toronto Junction, one of the best lots of horses offered in Toronto for some years. They were offered on Monday, a record number in history, and a large number of good sound heavy workers sold at \$170 to \$200 each, a few extra choice ones going up to \$220 and \$230 each. These sold chiefly to farmers and railway construction companies. Horses sold at \$170 to \$175, drivers, \$125 to \$150, and carters, \$100 to \$110. Carriage horses and drivers are a little slow of sale, the chief demand just now for good workers of the heavier sort. The break up of the roads may hamper their sale for a few more weeks, but generally speaking prospects are bright for a brisk spring trade at these prices. There are 200 horses of good quality are expected at the Junction market.

HOG PRICES THIS WEEK

The Wm. Davies Company, Ltd., Toronto, quote prices for bacon hogs this week as follows: \$25.00 for heavy country points, \$23.00, fed and watered at stock as follows: \$23.00 for heavy, \$23.75 the following morning at their packing works. These quotations are for select bacon hogs. They report no improvement in the bacon market, the advance in price being



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IS THERE A PACKERS' COMBINE

It is reported that a strong deputation of Wentworth County farmers will shortly interview Premier Whitney and ask him to give orders for an investigation of the alleged combine of Canadian packing houses, which is said to be running the hog industry in Ontario. A week ago, a deputation of avine breeders asked Dominion Government to change the tariff so as to restrict the importation of American fresh and cured pork products.

PETERBORO FARMERS' MARKET

Peterboro, Ont., March 21, 1908.—Trade this morning was very good and everything sold well. There was a drop in the price of eggs but they remained at the old price. Pork and beef were not so plentiful. Hay and straw were seen in larger quantities than for the past three or four weeks. More poultry also was offered. Apples, potatoes and other vegetables are now coming in more plentifully. The following were the ruling prices: PORK—Hind quarters, 9c to 10c a lb.; fore, 8c to 9c; whole hogs, 87.50 a cwt. BEEF—Fore quarters, 5 1/2c a lb.; hind, 7c; hearts, 10c a cwt. POTATOES—75c to 85c a bag. ONIONS—30c a bag. EGGS—20c to 25c a doz. BUTTER—28c to 30c a lb. HAY AND STRAW—Hay, \$13 to \$19 a ton; straw, \$5 to \$8 a load. APPLES—\$1 a bag, according to grade and variety. POULTRY—Dressed chickens, 75c to \$1.50 a pr.; turkeys, 14c a lb.

PETERBORO HOG MARKET

Peterboro, Ont., March 23, 1908.—The market is in a little better condition. The deliveries are light, on account of the bad roads. There is an advance over the prices paid last week. No other has happened in the English or American markets to warrant this advance. No other has been made to it to get more hogs. The (see, Matthews Company quote the following prices on the week's shipments: l.o.h. country points, \$5.40 a cwt.; delivered at abattoir, \$5.50.

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**CROP CONDITIONS**

In the crop reports for March, just issued by the United States Department of Agriculture, some information is given regarding crop conditions and seeding operation in other countries, that may be of interest to Canadian Dairyman and Farming World readers.

In Europe no exceptional severity of temperature had been experienced during the winter up to the beginning of March. The lack of snow covering more particularly in South Eastern Europe, has exposed the growing crops to danger that cannot yet be adequately estimated, and a recurrence of severe cold might still prove of great injury. The generally unsatisfactory condition in which Russian and Hungarian fall wheat entered the winter, renders the outlook somewhat unpromising. The smaller acreage sown in France and South Eastern Europe, reported some months back has been confirmed. The very mild weather of February in the United Kingdom and in France has facilitated the preparation of the land for spring seedings and in both these countries it is expected that increased spring sowings will make good the

shortage in fall seedings. In the United Kingdom the late fall crops reported as a general consequence of the heavy February, have improved considerably while the early sown wheat is in splendid condition. French and Italian winter crops as being in a less favorable condition than the previous year, and the continuance of wheat in January was 75, as compared with 77 at the same date in 1907. The continuance of mild and rainy weather has caused a rapid growth of crops in Spain. The same conditions have prevailed in Italy, though late frosts may injure the very forward plants. In Germany the condition of the growing crop is generally favorable though it is too soon yet to speak definitely in contrast to Hungary the condition of the growing crop is reported to be satisfactory.

It is too early yet to speak definitely in regard to the condition of the fall wheat crop in the United States and Canada. In Ontario, where fall wheat is the chief crop, the conditions are not so favorable so far. There has been a good body of snow. Much, however, will depend upon conditions during the next few weeks. Fall wheat suffers more from continued thawing and freezing and ice formation than anything else. Where water accumulates in a field and freezes over, there is danger of the crop being smothered underneath.

**COSPIP**

The Ontario Agricultural College has purchased five young team of Clydesdale geldings from Messrs. Smith & Richardson, Columbus, Ont.

**THE MYRTLE SALE**

The sale of pure bred stock at Myrtle, Ont., on March 15th, was not so successful as former ones held at that point. Several Shorthorn bulls from the herds of well-known breeders in the district were sold averaging about \$70. Not many females were sold. One champion stallion sold for \$625. From \$20 to \$24 a pair was paid for Shropshire and Cotswold sheep. The attendance was large.

**BRANDON WINTER FAIR**

The display of horses at the Brandon Winter Fair, held in the New Arena, was of the best. Each class was well represented and competition was keen. The great event of the show was the contest for the championship in Clydesdale. The entries were W. H. Shapley and Perpetual Motion; Sir Wm. Van Horne's Lord Ardwell; Bryce's Baron of Arcola and McKirby's Lord d'Arby. The real contest was between the first two, Van Horne's Lord Ardwell finally winning out.

**Presentation of the Prizes in the Dairy Farms' Competition**

The Dairy Farms' Competition organized last summer in Ontario, Toronto by the Canadian Dairyman was brought to a successful conclusion Thursday of last week when the prizes were presented to the successful competitors at a banquet held at the Thornhill Hotel. Nelson Monteth, Minister of Agriculture for Ontario acted as chairman and kept everything moving with a swing. The first prize of \$100 was presented to Mr. Leo McKinnis, of Toronto, by John H. Dargavel, M.L.A., the President of the Eastern Ontario Dairyman's Association. The second prize of \$75, won by Mr. D. Dunsmuir, of the Dor, was presented by Mr. W. H. Shapley, president of the Good Shapley & Muir Co., of Brantford, one of the contributors to the prize list. Revue George Henry, of York township, presented the third prize of \$50 to Mr. J. G. Paterson, of Churchville; Mr. Alex. Macoun, M.L.A., the fourth prize of \$30 to Mr. R. M. Lovelace, of Agincourt, and Mr. A. J. Reynolds, the secretary of the Toronto Milk Producers' Association, the fifth prize of \$15 to Mr. J. G. Paterson, of Agincourt. The special prizes offered by the City of Toronto, were presented by Mr. P. Slack, of that Company. One of these prizes, worth \$25, was won by J. J. McClure, and the second prize of \$15 by Mr. Theo. Hartley.

On behalf of the City Dairy, Mr. Slack made the important announcement that the City Dairy would be pleased to contribute \$50 each year to have such competition as a contest for butter fat more for their cream than their regular price. This announcement was greeted with applause.

Although the tickets for the banquet cost 75 cents, the large hall in which the banquet was held was almost filled by farmers and others interested in the competition. Among the speakers, besides those mentioned above, were Mr. B. Chapman, vice-president of the Ontario Wind Engine and Pump Co., which contributed to the prize list, H. B. Cowan, Editor-in-chief of The Canadian Dairyman and Farming World, and President of the Toronto Milk Producers' Association, and L. E. Annis, of Scarborough. All the speakers were warmly greeted by the Canadian Dairyman and Farming World and declared it to have been a great success. The various competitors bore testimony to the fact that they derived through taking part. Hon. Mr. Monteth was urged by some of the speakers to

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**Problems in Percentage, Interest, &c.**

Customer—Wish to borrow \$400 for 3 months; will pay the \$11 3/4 (7 1/2 % interest) less. (p. 108)  
 Baker—Seems that you know the interest by heart. C—With Rupp's New Calculator I can instantly find the interest on any sum, for any time and rate 1/2.  
 If the lat. figured on the 360 day basis is \$190; what is it on the 365 day basis? Ans. \$187.40. (p. 110)  
 If I pay \$120 a share for 8 1/2 % paper; what % do I realize on the investment? Ans. 7 1/2 %. (p. 108)  
 To make 5 1/2 %, what must 3 1/2 % cost? A. 7 1/2 % or 8.  
 Which is best, 6 1/2 % at \$110 a share, or 5 1/2 % at \$100? Simple and Compound Interest on \$1, at 6 1/2 %. (p. 108)  
 For 10 yrs, a 60¢, e. 79¢; 30 yrs, 1.20, 2.21; 30 yrs, 1.80, e. 1.74; 40 yrs, e. 2.40, e. 9.29; 50 yrs, e. 3.00, e. 17.42; 100 y. 6.00, 338.30

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held a provincial competition. It was suggested that four or five thousand dollars should be voted for this purpose. Preceding the banquet, a large number of people visited the farm at Thornhill of Mr. Geo. McKinnis, the first prize winner. The competition proved such a success that it is probable that a similar competition will be held this year in the county of Peterboro and possibly in some of the adjoining counties.

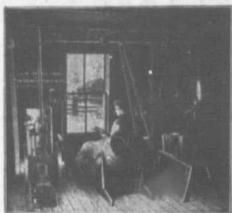


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