

Egg Production, a Profitable Asset for the Farmer

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The CANADIAN DAIRYMAN AND FARMING WORLD

• PETERBORO, ONT

MARCH 18, 1908

Rudnick, J. A.
(Chief Dairy Expert)

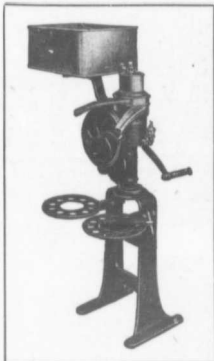


While the collecting of eggs furnishes great fun for the boys and girls the price of eggs is lowered by the practice of letting the hens lay "any old place." The Danes make large money from poultry and eggs. Their eggs are marketed promptly and are numbered. It, thus, is easy to tell where the bad eggs come from.

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[Rural Free Delivery Question

Ed. The Dairyman and Farming World—I was very pleased to see the amalgamation of The Canadian Dairyman and The Farming World celebrated (as it were) by such a seasonable topic, from the farmer's point of view, as rural free mail delivery. This is a live subject and worthy the careful consideration of every farmer and every politician as well whose aim it is to uplift mankind. Large amounts of money are spent to educate the people. Why not spend some along this line? We are told that about 70 per cent. of the Government tax comes from the farm. What do we get in return for it?

In most cities the mail is carried twice daily to each door direct. The farmer has to drive several miles for his mail or go without. Apart from the great educational feature that is bound to spread with rural free mail delivery, my conviction is that the increase in postal revenue would go a long way to meet the increased outlay. Along with the local telephone systems that are fast spreading throughout the Dominion it would largely solve the problem of keeping the boys and girls on the farm. Too many farmers will hold up their hands in awe at the great expense that it would entail, but they are the farmers who do not realize the large amounts that are being spent by the Government through other channels that are of no benefit to the farmer. If the farmers would make rural free mail delivery their platform instead of party politics, we would soon have rural free mail delivery.—R. H. Harding, Ont.

The New Combined Paper Much Appreciated

That the step taken by combining The Canadian Dairyman and the Farming World as one publication is meeting with the general approval of the readers of both papers is apparent from the letters which we are receiving daily. Readers of The Canadian Dairyman are finding that the new household, poultry and horticultural departments are just what they have been waiting for, and are not slow in letting us know that they appreciate the change which has been made. Those who have been taking The Farming World find that whereas formerly they received their paper only twice a month, or 24 copies of the paper a year, they now get a copy every week or 52 copies in a year. They are thus able to keep in touch with the market quotations, which is something every farmer is greatly interested in. This is something they could not do with a semi-monthly publication. Our articles on free rural delivery are being followed with great interest. Read what some of our friends have to say regarding the change:

"Have just received the first copy of the new paper. You certainly do serve credit."—W. J. Stevenson, Oshawa, Ont.

"I have been a subscriber to the Farming World for some time. I am well pleased with the new combined paper, and wish you every success.—W. E. Thompson, Woodstock, Ont.

"I admire the paper very much, and am glad that it is now a weekly paper instead of a semi-monthly. I believe that it will be thus of much more benefit to farmers than formerly.—Arthur Fuller, Earleton, Ont.

"I have been a subscriber to The Farming World for some time. I think the change in the paper a good one, and wish you every success.—Robt. J. Manery, Chesley, Ont.

"A copy of the new combined paper arrived to-day. I may say that I am very well pleased with its first appearance.—Colin F. MacAdam, Antigonish, N. S.

The above are a few of the many letters we are receiving constantly

If you like the new combined paper, write and tell us so and give us some suggestions for improvement. We appreciate letters like the foregoing.

\$533,263 for Agriculture?

Out of total estimates brought down in the Ontario Legislature recently, of \$7,501,575.67, which will probably be increased by several hundred thousand dollars more, when the supplementary estimates are passed, agriculture gets \$533,263, in a direct grant, as compared with \$507,453 a year ago.

The amounts for the chief branches of agriculture are as follows for 1907 and 1908:

1907	1908
Agr. and Hort. Societies.....	\$102,092 \$107,837
The Live Stock Branch.....	25,622 25,900
Farmers and Women's Inst.....	27,816 29,772
Journal of Industries.....	5,500 5,500
Swairing.....	65,568
Fruit, Vegetables etc.....	40,252 38,500
Miscellaneous.....	30,500 49,750
Ontario Agricultural College.....	
Salaries and Expenses.....	108,375 117,450
Macdonald Institute.....	2,356 23,900
Forestry.....	4,000 4,500
Animal Husbandry and Farming and Exper. Feeding.....	20,610 20,250
Field Experiments.....	1,990 10,000
Experiment Dairy.....	1,000 1,000
Dairy School.....	9,560 10,000
Poultry.....	1,532 4,990
Horticulture.....	9,228 9,224
Mechanical Department.....	950 1,000

The increase in the estimates for Agricultural Societies, etc., is made of \$3,000 for field crops competitions, as against \$1,000 last year; \$3,000 for spring stallion shows, and \$1,000 for seed fairs. No increase has been made to Agricultural Societies in general.

The decrease of nearly \$3,000 in the live stock is due to a re-estimation of some of the items, the various associations receiving about the same. The grant to poultry associations is increased from \$1,000 to \$1,500.

The increase in the Institute branch is also due, \$1,000 to transfer from some other branch, and the balance for special horticulture and seed meetings, and the organization of farmers clubs, etc.

The dairy vote apparently shows a decrease of \$2,100, when, in fact, the appropriation for instruction work shows an increase of \$1,250. The item of \$3,250 for the Western Dairy School, Strathroy, is cut out of this year's estimates.

The increases at the Ontario Agricultural College, are mainly along the line of salary, and general expansion in the work. The cutting of the cost of the experimental dairy by one-half is due to some new plan adopted in receiving the milk from farmers. The College also gets \$28,750 for building account.

A vote that will interest a great many stockmen, especially in view of the present agitation to move the winter fair to the Union Stock Yards, Toronto Junction, is that of \$20,000 for additions to the present winter fair building at Guelph. Evidently the Government has made up its mind to continue the fair at the Royal City, and intend to enlarge and improve the facilities for holding the show.

The new fruit experiment station, at Jordan in the Niagara District, gets an appropriation of \$25,000, over half of which is for new buildings.

As to the general estimates, there is a new vote of \$125,000 for additional Normal Schools, with a vote of \$75,000 for the four new schools decided upon.

Some of the general increases are: \$537,246 for civil government, as against \$522,828 in 1907; \$620,84, for the administration of justice, as against \$579,568, and \$1,600,364.64 for education, as against \$1,350,105.51 in 1907. There is an increased appropriation this year in the way of grants to rural schools. There is a new vote of \$1,500 to consolidate schools. The increase in grants to institutions, which, quite markedly is due, largely, to the extra cost of supplies.

The CANADIAN DAIRYMAN AND FARMING WORLD

AGRICULTURE. THE KEystone OF CANADIAN PROSPERITY

Vol. XXVIII.

FOR WEEK ENDING MARCH 18, 1908

No. 9

The Care of Early-Hatched Chicks

M. A. W. Overend, York Co., Ont.

THE care of early-hatched chickens, those brought out in February and early March, is a matter which greatly concerns the poultryman and farmer: whether the birds be raised for exhibition or market purposes. Natural incubation is not carried on to such an extent as artificial in the early days of the hatching season. The supply of setting hens is limited, which curtails the operation very much. When, however, they have been secured and a number of downy chicks have been brought forth in due time, there are certain things to be remembered and put into practice, which will assist in rearing the greatest possible number of them.

In the first place, a perfectly snug, dry and well lighted place must be prepared for them. Be particular to see that, no dampness is allowed to congeal on the walls or the floor. This may be prevented, first by covering the outside of the place which you have given up to incubation and rearing purposes with ready roofing, and second, by packing sawe ha' or straw, between the rafters of the roof, with strips of wood, nailed crossways, (or wire netting) to keep it in place.

Make sure that there are no drafts from windows or doors, by completely stopping up all chinks in the walls, and providing ventilation by stretching on each side of the upper part of a window frame one ply of heavy factory cotton or burlap. Be sure that there is plenty of light. Arrange the windows high up to the roof, facing the south, so that the light may penetrate well back into the house. Light is a very important consideration, and you need not expect your chicks to thrive well if they are housed in a dim "unreligious" light and have to group around for their food and drink. As the days grow warmer and the chicks grow big the window can be opened for a part of the day at least, and the spring sunshine allowed to shine in. Of course, it is taken for granted that as soon as the snow and frost are gone, the chicks will be allowed to run outside.

KEEP THEM CLEAN

Another essential to success in the raising of chicks, artificial or natural, is to keep them clean. It should not be necessary to go into the reasons for this advice, we simply repeat keep them clean. This is especially needful in regard to early chicks, as they have the rigour of the season to contend with and, therefore, require to be kept free from lice.

A point which scarcely seems to need to be mentioned, but one which is well to follow, is to keep every brood separate; do not let the chicks or the hens mix, or the results will be disappointing to say the least.

For the artificial rearing of early chicks, the housing arrangements, required are similar to those referred to for the natural method. Have the houses front south and lots of light and fresh air obtained, in the manner described. Al-

though there are numerous brooders described as "outdoor" brooders, the care and comfort of the chicks, as well as the comfort of the attendant, will be better served by placing these brooders in an outhouse of the kind referred to. Of course, in the late spring, brooders could be used outside, but even then it is better to have them under cover.

In caring for chicks artificially, follow the instructions obtained with the make of brooder you operate. The manufacturer ought to know how the best results are to be obtained from his own machine. Particular attention should be given to the advice contained in all instruction, not to crowd the chicks.

The feeding of chicks, no matter, by whatever method they are reared is much the same.

There are three aims to be achieved: Do not feed too much; Feed the proper foods; Keep them active.

The proper time to first give food to young chicks is not before they are two days old. Some advise giving the first feed when the

eggs yielding chicks is over, we then remove the hen to the place where we desire her.

Do not feed the chicks hard boiled eggs. This experience, and, I believe, the experience has been the custom for some time, but our of others has been that it has a great tendency to create bowel trouble in young chicks, which can make away with a flock about as quickly as anything else.

Experts in the science of artificially raising chicks, are investigating, with the greatest possible diligence, the cause of "white Diarrhoea" in chicks. The result of their investigations to date seems to be that a portion of undigested yolk, the yolk which enters the chick before it emerges from the shell, is the cause of the trouble.

It seems, therefore, poor practice to give a young chicken hard boiled egg, when the probability is that what the chick received naturally has not been digested. We are advised by medical men, that hard boiled eggs are indigestible;

if this is so regarding human beings, it would also hold good as to the chickens. I have always had a bowel trouble with chicks that were fed hard boiled egg, while when this was eliminated and dry food substituted, my birds were free from such trouble.

WHAT TO FEED

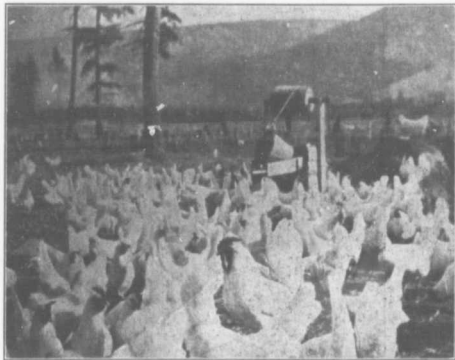
I believe in feeding a first-grade commercial poultry food. It contains all the desirable elements in a satisfactory basic food ration, and in addition, it saves the bother of making our own mixture. Chicks will thrive on it, and eat it continuously for six weeks at least, often longer, and by that time they can be fed grain. Occasionally, I give them a feed of rolled oats, but the chick feed is the main ration, apart, of course, from green food, meat meal, boiled liver, or fine cut bone, the last three of which should be constantly fed, but in sparing quantities at any one time.

The only things we should keep before young chicks constantly is plenty of fresh, clean water, finely ground chick grit, charcoal and oyster shell, of which they will consume considerable quantities right from the start. See that the water is placed on a platform not too high for them to get up to, but high enough to prevent dirt from being scratched in.

If a hot bed can be made and lettuce planted therein, it will provide the very best kind of food for them. They will eat it and thrive. Failing this, mangels are the best.

Feed often, every two hours, for the first four weeks, and little at a time. Never give sufficient for any to be left over. Keep the chicks hungry and they will, if other conditions are right, be healthy also. Of course, on the other hand, there is nothing gained by starving them.

As mentioned before, keep them active. If you are raising artificially, see that your brooders contain about two inches of chaff. Throw the chick feed into this, and they will scratch for it. It must be remembered, however, that this chaff



WHERE CHICKENS PAY THEIR WAY

A profitable department at the Coldstream Ranch, Vernon, B.C., is the poultry. The illustration shows one of the many colony house flocks on the ranch. This flock, "The White Clover" flock consists of 1,000 pure bred white leghorns.

chicks are three days old, and I am inclined to think that they are right. I have reached this conclusion as a result of my observance of the way the hen treats her young. After all, in spite of the tirades of the Incubator manufacturers against the evil habits of the hen, they must admit that they are endeavoring to follow her ways, or to "be natural" in the methods and results of their inventions. If you let a hen follow her instincts you will see that she will sit on the nest two or three days after the first chicks are out, in the hope that one or two eggs may hatch. During this time the chicks in the natural way receive no food. They simply poke their little heads out of the feathers and draw them in again, making more extended appearances later on. So we believe that the proper way with hens is to leave them alone with their young, and when all possible chance of any unhatched

must be frequently renewed, as it would never do to allow them to eat their food out of dirty scratching material. When hatching by hen, if the hen has been confined for two days after the chicks have come out, they will be strong enough and spry enough to take care of themselves, when the hen gets to work with her scratching powers, as she is glad enough to do.

With the regular feeding, proper housing and management along the lines indicated, the results of your operations ought to be successful. All the care and attention you can give the chicks will be wisely expended. The more time you devote to them, the more satisfied you will be with the results. Early chicks mean increased returns financially, just as anything "early" in any other line does, and you should see that they are given proper care.

Figure on the Cost of Your Milking Machine.

J. P. Robinson, Nipissing Co., Ont.

The Experimental Farm, agricultural press and other instructors of the farming community have done more real good by inducing farmers to keep milk records than by all their experimenting and theorizing, highly valuable as it is. Every other business laughs at the farmer, who, with the milk-making machine worth \$15 to \$20, fed upon \$40 or \$50 worth of material and labor a year, turns out \$20 or \$30 worth of finished product, plus the manure and a skin skin.

Farming has been classed as an occupation requiring the greatest possible amount of labor in return for the least possible remuneration. Of many things helping to make this true, the keeping of poor cows is surely the greatest. Of course, this applies to the farmer as distinguished from the fruit grower, market gardener, live stock specialist, city milk dealer, etc. These men can afford poor cows, though it is not strange that, usually, they have animals above the average. Many have wondered why each succeeding year found them as hard driven as ever before to make ends meet. "Cheese was a good price," they would say. "Butter will be high this winter." And yet it was the same old story. At one factory which I visited during the past summer, the cheese maker told me that only a few of the patrons would receive \$28 a cow for the full season. Hay sold around \$15 a ton in that locality.

When it was announced last fall that a shortage of fodder was imminent in Ontario, some of the alleged wise ones claimed that farmers were panic-stricken without cause. A great number availed themselves of this excuse to get rid of a bunch of dead-beat boarders. "Milk cows selling at \$8 to \$10 a piece" was a repeated newspaper heading. "Milk cows" it should have read.

The continued repetition that a cow must give at least 6,000 lbs. of milk a year to be profitable, has begun to take effect. Keeping cows, was, for many years, a pastime, while the land was new and favorable seasons produced good crops to feed them. I can recall instances where the strife between neighbors about the number of their cows led to bitter enmity. All would have had better bank accounts if they had kept fewer.

But the cry is "you must have the manure." Quite so; only don't have \$5 worth made by a cow from \$20 worth of fodder unless she will give you \$20 worth of milk as a by product. Don't guess at the quantity of milk. Weigh it. The time taken in doing so is of no consequence.

Put your money in the bank and you draw bank interest. Put it in "Cobalt" and you lose it. Many of the dairymen in the cow testing associations are deriving 30 per cent. interest on the money invested in good dairy cows.—C. F. Whitley, Dept. of Agriculture, Ottawa.

RURAL FREE DELIVERY; IS IT POSSIBLE TO RESTRICT THE SERVICE?

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

An interview with a leading official of our Canadian post office department, was published in the second article in this series. The statement was made by this official that it had been found impossible, in the United States, to control the conditions upon which the rural free delivery service had been established. He contended that the United States Post Office Department had been unable to restrict the service to routes that are 20 to 25 miles in length and that serve at least 100 families. It had been found useless, he said, to try to limit rural delivery to sections where the roads were good, and where there were the required number of families. The people that were refused rural delivery raised such a row, the politicians forced the post office department to establish the routes. The great expense of the system was blamed to the fact that the government had been unable to control the service.

WHAT WE WOULD EXPECT

The conditions upon which the service is established were described in the fourth article in this series. If these conditions have not been exacted and if the Post Office Department has had to give the service to the people practically wherever they have demanded it, then we must presume:

1st.—That the great majority of the applications received by the Department for the location of new routes have been granted;

2nd.—That a large proportion of the routes are less than 20 miles in length;

3rd.—That many routes, 24 miles in length serve considerably less than 100 families.

DISPOSITION OF PETITIONS

The reports of the United States Post Office Department furnish the best answer to the contention that the Department has been forced to establish the system almost wherever the people have petitioned for it. While the service has been given to some sections not deserving it, such cases are the exception and not the rule.

On July 1, 1903, the number of petitions for rural delivery on file with the Department was 11,700. In addition there were 2307 cases that had been reported upon previously. During the following year 11,630 of the proposed routes were examined by inspectors sent out by the Department. Of these, 6780 were found to comply with the requirements of the Department and were reported upon favorably. Of the remainder, 4,850 were found not to comply with the requirements of the service and were reported upon adversely. The number of routes established was 9,447. During the fiscal year 1905-6, 3331 routes were reported upon unfavorably, 76 routes were discontinued because they fell below the requirements of the Department and 3,656 routes were established. There were 233 routes on which only a tri-weekly service was given.

For the fiscal year 1906-7, 1,679 routes were reported upon unfavorably, 357 routes were discontinued (Note—Some of the routes that were discontinued were merged in other routes) and 2,317 routes were established. There were 689 routes that had only a tri-weekly service.

If the department has been forced to give the service wherever the people have petitioned for it how is it that we find during the past two years alone over 5,000 petitions have been reported upon adversely?

We have been told that once the service has been established it has been found impossible

to discontinue it. And yet we find that last year alone 357 routes were discontinued or merged during the past two years.

We have been told that if we give rural delivery to one section we must give the same service to every section. And yet we find that while a daily service was given on thousands of routes there were 689 routes last year on which only a tri-weekly service was given.

If it is true that the people and the politicians of the United States force the government to establish the service in spite of the requirements of the Post Office Department, how is it that the Department has had the temerity, during the past two years, to report adversely upon over 5,000 petitions to discontinue or completely re-arrange 433 established routes and to refuse to give anything better than a tri-weekly service on 689 routes?

THE LENGTH OF THE ROUTES

Were it true that the Post Office Department has been forced to give way to the public clamor and that in consequence a large proportion of the routes that have been established are less than 20 miles in length, it would be a serious objection to the service provided that the expense of operating the short routes was as great as the expense of operating the long routes. It is not.

For several years the pay of the carriers has been based upon the length of their routes. In some instances this is unjust. There are some short routes on which the carriers deliver three and four times as much mail as other carriers, on longer routes. It has, however, been found to be the fairest basis, and is followed by the Department.

THE PAY OF THE CARRIERS

The pay of the carriers is as follows:

Routes, 22 to 24 miles, \$864 a year.
Routes, 20 to 22 miles, \$810 a year.
Routes, 18 to 20 miles, \$720 a year.
Routes, 16 to 18 miles, \$630 a year.
Routes, 14 to 16 miles, \$540 a year.
Routes, 12 to 14 miles, \$504 a year.
Routes, 10 to 12 miles, \$468 a year.
Routes, 8 to 10 miles, \$432 a year.
Routes, 6 to 8 miles, \$396 a year.

As short routes cost proportionately less than the long routes, what objection can be taken even if the United States Government has given way to public clamor, and established short routes? Is it possible that our Post Office Department was not aware that the rural carriers of the United States were paid on a mileage basis?

THE ROUTES ARE OVER 20 MILES IN LENGTH

Aside from all this, however, it is not true that a large proportion of the routes are less than 20 miles in length. Fourth Assistant Post Master General De Grauw last November issued a special bulletin dealing with this matter. This bulletin showed that of the 38,216 routes then in existence, 24,704 were 24 miles or over in length, or 64.65 per cent. of the whole. There were 11,384 routes between 20 and 24 miles in length, or 29.52 per cent. of the whole. There were only 2,230 routes less than 20 miles in length. Thus we see that 94.17 per cent. of the routes were over 20 miles in length, and only 5.83 per cent. less than 20 miles long.

Space does not permit mention being made in this issue of the average number of families on the different routes, or of the number of the post

offices and star routes that have been discontinued. These will be dealt with later.

LARGELY TRUE AT ONE TIME

The defects that it has been claimed exist in the Rural Delivery system of the United States, did exist to some extent at one time. During the first few years of the service, the applications for the establishment of new routes poured in on the Department in thousands. It was found to be impossible to make a thorough inspection of each of the desired routes. At that time the Department had not formulated its policy as to the conditions upon which the service would be started. Its machinery for enforcing such requirements as it did have was inadequate. The result was that hundreds of routes were established where they should not have been. The expense of the service on such routes was much greater than the benefits derived therefrom warranted.

CONDITIONS CHANGED

During the past few years, particularly the last two or three, conditions have changed. The Post Office Department has so perfected its machinery that it has been able to make a thorough

inspection of proposed routes almost as rapidly as the petitions for their establishment have been received. Thousands of these petitions have been refused. Hundreds of routes that were established in the early days of the service, as has been shown, have been discontinued, or re-arranged. Hundreds of others have been reduced from a daily service to a tri-weekly service.

In the early days of the service, the Post Office officials were apprehensive as to what the outcome of the service was going to be. Some of them at least were afraid that the expenses of the rural delivery system would prove so great it would ultimately have to be discontinued. Those doubts and fears are now a thing of the past. The Department now has the service under control. About five-sixths of the territory suitable for rural delivery, now has the service. The number of yearly applications for new routes is several thousand less than it was a few years ago. The last two years has shown a marked decrease in the number of petitions received for the installation of the service. This has given the Post Office officials an opportunity to re-arrange the routes, and to improve and strengthen the whole service. As will be shown later, the deficit of the United States Post Office Department last year

was several million dollars less than it was 10 years ago when the expenditures on free rural delivery amounted to about only \$50,000 a year. These facts are known to the people in the United States. It amuses them, therefore, when they hear the people in Canada advancing the same old arguments against free rural delivery that they heard and grew accustomed to when it was first proposed to extend rural delivery throughout the United States, and which time and experience have shown to have been for the most part, fallacious.—H. B. C.

Feeding Poultry

Wilbur Bennett, Peterboro', Ont.

In the feeding of poultry much depends on the size of the flock kept, and what is desired, eggs, or stock. For egg production on a large scale, and with the minimum amount of labor, there is nothing better than dry, or hopper feeding. Few other systems will give more profit a bird, and keep the birds more hardy and vigorous.

My plan is to feed the whole grains such as



A RURAL DELIVERY BOX IN FRONT OF THE HOME OF A NEW YORK STATE FARMER

Farmers in the United States who enjoy the benefits of free rural delivery are required to furnish their own boxes which must comply with the requirements of the post office department. Many different makes of boxes have been approved by the department. Any person who tampers with one of these boxes is liable to a heavy fine. The boxes must be placed beside the road and where the carrier can reach them without dismounting from his vehicle. This illustration was taken specially for The Canadian Dairymen and a Farming World while our representative was investigating the free rural delivery service in the State of New York.

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wheat, corn, and buckwheat, in the litter, twice a day, after the birds have gone to roost, and at noon. This makes them take exercise, and keeps them out of mischief. About two quarts of grain to 50 hens at a feed, and a dry mash always before them, gives them all that they require.

Many different mixtures are given for this dry mash. One that I use with success, is the following:—200 pounds bran, 100 pounds corn-chop, 100 pounds low grade flour, 100 pounds gluten meal, the whole mixed well together, and kept in hoppers where the fowls can get at it at any time. They will not eat to excess of this kind of food, but are just as ready for their whole grain, and willing to scratch for it, as though they had had nothing since the last feed. I use a lot of green cut bone. Nothing tends more to make my poultry a success, than the meat food given in this form. I feed about ½ oz. a bird a day. Mangels and green clover form fine vegetable food and are relished by the fowls very highly. The supply of water and grit, should be abundant, and clean.

A ton of green manure is worth as much as a ton of rotted manure. It takes two tons of green manure to make one of rotted.—J. H. Grisdale.

Crop Rotation

The value of a crop rotation to enrich the soil and cause it to give to the husbandman more bountiful crops is being realized as never before by the average farmer. No one system is adapted to all localities and conditions of agriculture. These matters have to be decided by the amount of moisture in the soil, the locality in which we live, the products we raise from the soil and other conditions peculiar to our situation. But it is now regarded by every intelligent farmer that we must have some system of rotation of crops if the fertility of the soil is to be husbanded and maintained. In fact in many cases it must first be restored. In the systems of farming in the past many so-called farmers have enriched their pockets as Soil-Robbers. They have been playing their pockets at the expense of the soil, leaving to those who came after a soil which though once fertile and productive, has had removed its most valuable asset, FERTILITY. These men were called farmers.

THE SYSTEM AT "SPRINGBROOK"

The system of crop-rotation followed at "Spring Brook" has proven satisfactory after some years of trial. It has added fertility to the soil. The farm is more productive to-day than when the present owner took it in hand 16 years ago. Then it would hardly produce 30 bushels of oats or 1½ tons of hay an acre. Now it produces from 50 to 60 bushels of oats and barley, 2½ to 3 tons of hay, and large crops of corn (for ensilage) an acre. There 12 cows, 3 or 4 horses and a few young cattle and sheep were kept on 95 acres (12 acres of which was in bush.) Now the stock keeping power of the farm is nearly double what it was then.

Some years ago we adopted the 6 year system of rotation as follows—1st year, corn and hoe crop; 2nd year, wheat, oats or barley, with a seeding to clover and grass; 3rd year, clover; 4th year, mixed hay; 5th and 6th years, pasture. We are now adopting the four year system holding to only one year hay and one year pasture, believing it to be the ideal system of rotation, to keep the soil fertile and free from weeds.

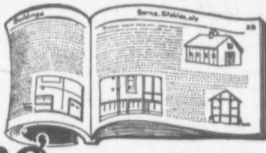
WORKING THE SYSTEM

We prefer to manure pasture land, for corn during the months of June or July, the previous year. This gives us a good growth of grass in the months of August and September when the other pastures are dry and short. It gives us, also, a fine mould to plow down in October for corn the following season. The putting on of the manure at this season allows the weed seeds to germinate and either be eaten off by the cattle or plowed under before they come to maturity and thus are destroyed forever. On such land plowed in the fall and well tilled the next spring we have never failed to get a heavy crop of corn. This land is plowed up the next fall, sown to grain and seeded with 6 to 8 lbs Timothy, 3 lbs early and 3 lbs late red clover, 1 lb alsike and 1 lb red top. The reason I sow both the early and late red clovers is that the former gives an early red and the latter a late aftermath, giving a good supply of feed from early in August until well on in October. On soil handled in this way we get a fine crop of grain, an excellent crop of clover the following summer, a good cut of mixed hay the fourth year and pasturage the fifth and sixth years.

When grain is sown on the first plowing about 3 lbs. of early clover is sown with the grain to be plowed down in the fall if not required for feed.

The manure not required for the corn land is drawn direct from the stable and spread on the second crop meadow during the winter and spring, or when the snow is not too deep. The straw used for bedding is first cut thus; there is no long straw in the manure to rake up with the hay.—W. F. S.

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Treatment for Smut

The only way that smut can be eradicated, or lessened, in the grain crop, is to treat the seed before sowing. The two treatments most generally in use for this purpose are the formalin and bluestone methods. The former is gradually replacing the latter method.

For smut in oats put four ounces of formalin in 12 gallons of water. Put the oats in a pile and sprinkle the liquid over them, turning the grain so that all are well wetted; let the oats lie for a short time and then spread out to dry. This quantity of fluid should be sufficient for treating 25 bushels of seed. This treatment is simple and very effective. Care should be taken to see that all the grain is thoroughly moistened by the solution, and that the seed is well dried afterwards.

Some recent tests made by Prof. Shutt, of the Central Experimental Farm, would indicate that the formalin or formaldehyde solution, should not be prepared until just before it is to be used. If the solution is made and exposed to the air for several days the water in the solution evaporates much more quickly than the formaldehyde, thus leaving it stronger than intended, and more liable to injure the grain.

Another treatment, beside the bluestone, is the hot water treatment. This is more difficult to manage, entails more labor, and is hardly as effective as the others. The formalin treatment is now considered the simplest, and most reliable, and can be handled by any farmer with little difficulty. Where smut is bad, no seed should be sown without being treated, and to be on the safe side, all seeds should be so treated.

increase in yield did not make for as much improvement as the selection of individual plants.

The origin of Dawson's Golden chaff wheat, now grown more extensively in Ontario, than any other variety, is a striking example of plant selection. Eighteen years ago Mr. W. H. Dawson, near Paris, Ont., in walking through his wheat field, which was lodged and weak in the straw, noted one plant that stood up by itself. It was strong in the straw and while other plants around it were down, it maintained upright position. Mr. Dawson selected the head from this plant, and the next season sowed the seed by itself. From this he was able in a few years to supply his neighbors with seed from it, and in this way it was distributed over the whole country. The Ontario Agricultural College to straws of Dawson's Golden chaff were recently selected, and eight of these were found to give greater yields than the original, thus establishing the theory that, however good a variety may be it is possible by selecting individual plants to still improve the quality and increase the yield. Mandchur barley was another example. Nine thousand seeds were planted at the College and the resulting crop was shown great variation, some yielding one head, other two, others three, up to 28 heads. One strain in particular topped the lot, not only in the number of the college, but also in the co-operative tests throughout the province, in yield, in strength of straw, and in quality of grain.

Sanitary Conditions in Handling Milk

E. L. The Dairyman and Farming World.—Much has been said on the sanitary handling of milk. Little has been said, however, in regard to the care of milk in transit. This certainly is one of the points that cannot be jotted down as the last and least. It is a shame that thousands of cans of milk are taken to cities daily by various means of transportation without any assurance being given by the transportation agencies as to the safety of this product. This winter should demonstrate the need for a step being taken in this direction. Many dollars have been lost by spilt and so forth during the last few weeks. I have seen considerable of this myself.

Accidents are not the only reasons for the much-needed improvement, however. In this connection, every chance is given to jealous or mischievous persons to adulterate the milk or to contaminate it with other and foreign material. Again, there are the thirty fellows who have been seen drinking from the cans or putting milk in their mouths. If, because, we could never admit that the people of this country are so horribly bad. It has been proven, however, that there are enough bad to render it necessary for immediate protective measures being taken. If the health officers and retail milk men do not put such measures in force, producers and citizens should demand it.

If milk is not good, the producers get the blame. But there are scores of inroads that lead to its impurity, all due to the careless way in which it is handled. A can with a sealed lid by no means fills the bill. What is wanted is a simple but sure method of locking the lids fast on the inside. Then there would be no danger of anyone meddling with them. Furthermore, there would be no loss by upsets and railroad accidents.

Let us have the opinion of others next week on this subject. If I was a milk producer, I would give all the blame for impure or unsanitary milk—A Consumer.

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OATS



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The Improvement of Farm Crops

Greater efforts are being put forth now, to improve the farm crops of the country, than ever before. Prof. C. A. Zavitz, of the Goodell Agricultural College, referred to this subject in an address delivered in Ottawa at the recent annual convention of the Canadian Seed Grower Association.

Speaking on the details of plant improvement he advised a close study of the foundation stock. There are many varieties of farm crops in Canada and a wide difference in the character of these. There is a great difference in productiveness. One variety of grain will often yield 15 bushels an acre more than another variety of the same kind. Then there are early and late maturing varieties, suitable for different conditions of soil and climate. These must be studied as well as the different characters of grains in their disease resisting qualities, such as smut and rust.

Prof. Zavitz instanced an experiment conducted at Guelph, with 250 varieties or strains of oats. Some of these were very much subject to smut while others were not. In one variety only three heads of smut were found during five years growing of this variety. In some varieties of wheat to times as much smut was found as in other varieties grown under the same conditions. Some varieties of potatoes were very much more subject to rot than others. The plant improver must note these points and endeavor to profit from them.

It is a common belief that it is necessary to change seeds every three or four years in order to maintain its vitality and producing power. Prof. Zavitz protested that this was not necessary. On the college farm, so varieties of wheat, barley, oats and potatoes had been grown continually for 18 years by selection. With the exception of one variety of potatoes, every variety had given an increased yield the last year over the first.

The selection of the seed alone, while it helped to improve quality and

A Good Word for the Milking Machine

"One of the difficult problems confronting the dairy farmer," said Mr. Geo. A. Smith, of the New York Experiment Station, in addressing a farmers' institute meeting, recently, "and which is becoming more difficult all the time is 'How is he to get his cows milked with the existing scarcity of labor?'"

"Last March," he continued, "we made arrangements with the Burrell Company, by which we secured one of its milking machines, and have used it steadily from that time, milking from 20 to 23 cows. Some people claim that they have not succeeded. Then, again, I know of a man who has used the machine for three years, milking 40 cows, and who has succeeded, and who is using it right along."

"Our experience with the machine is that it milks the cows as clean, if not cleaner, than the ordinary man milks by hand. The other part, the influence of the machine on the flow of milk for a year, is a difficult thing to tell. If a cow does not do so well, it is because she was not milked clean by the machine. If we get a good flow of milk from the cow, then we can say that the machine is doing good work."

COMPARATIVE FIGURES TELL THE STORY

"The following figures show what some of the cows did with and without the machine. The records are from 26 to 28 weeks. Conditions were not comparable within the past two seasons. We do not pasture our cows. In 1906 there was rain and plenty of green food. In 1907 there was drought and we had to feed hay in part of August and September. The following cows freshened both years in March and April and were apparently normal. The cow Dollie was not dry before calving.

	Prs.	Milk	Milk	Giving	P.C.
	fed	1907	1906	Nov. 19	Per
Bath.....	4	3080	3672	18.1	7
Carry.....	4	3057	3696	8	7
Princess...	4	4196	3322	11.7	5
Fanny.....	6	4363	4422	4.5	4.8
Dollie.....	8	3819	4404	18.1	6

"To make a success of the machine, it is necessary that the man who runs it have a taste for machinery. He should be one who studies, knows and understands his cows. The teat cup should be of the right size. They are graduated from '3' to '6'. They must just support and not constrict the teat."

IT WILL GIVE SOME SANITARY MILK

These machines are provided with attachments so that the air entering the machine passes for the most part through cotton filters. By using properly-fitting teat cups and keeping the tubes entirely submerged in brine, without cotton filters, the milk averaged in 49 tests, 31,600 bacteria a c.c. When cotton filters were used, the average for 48 tests was 14,500 bacteria a c.c. Now, we can produce milk that will average only 3,000 bacteria to the c.c. Ordinary milk, where no special pains are taken to make it clean, will contain from 500,000 to 3,000,000 bacteria a c.c.

"In order to produce the most sanitary milk, it is necessary to wash the tubes and so forth, first with cold water, then with salt soda and hot water, and then with scalding hot water. Once a week the tubes and all parts of the machine are taken apart and washed thoroughly, thus we are able to make a minimum of bacteria in the milk. Ordinary milk and this in a barn where no special pains are taken such as sprinkling the floor, washing the sides and flanks of the cows and udder."

"The price of an outfit to milk 30 cows, including a two h.p. gasoline engine pump, three machines, parts, pulser, rubber tubes and four sets of teat cups, is about \$300. One

man can milk 20 cows in an hour with one machine. Some men can handle three machines, thereby milking 60 cows an hour. The tubes are durable if kept properly, always submerged in brine.

"If you consider the machine on the whole a success?" was asked.

"From our experience, it is a success," replied Mr. Smith. "For a man who has a large dairy, it a great boon."

Test Your Seeds

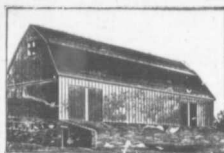
If you buy seed of the seed man, demand a guarantee from him of its quality; then test the seed yourself, and find out if he is telling you the truth. Reliable seedsmen will guarantee their seeds, and if they do not do so, don't buy. Also don't grumble at the price of guaranteed seed.

One of the simplest and best methods of testing the germinating power of seed, is to place a small piece of blotting paper or flannel cloth, moisture and fold together, after placing a counted number, say, 100, of the seed, on the folds. Put the blotter or cloth on a plate, and cover with another inverted plate, and place in a warm room. From 10 to 25 or 30 days should be allowed for the test, depending upon the kind of seed. The germinated seed should be counted and removed from day to day and at the end of the test the percentage of good seed may easily be computed. 80 seed may be tested in soil, but the germinations are likely to be from 10 to 15 per cent. lower than by the foregoing plan. The cloth or blotter plan is simple and can be carried on during the cold weather, and before the busy season opens.

As to the germinating power of good seed, it should not be lower than 75 or 80 per cent., for the leading grain crops. The United States Department of Agriculture places the standard of germination for clean seed, harvested and preserved under favorable conditions, and not over one year old, for number of vegetable and grains, as follows: Beans, 90 per cent.; beets, 143 plants from 100 seed balls; cabbage, 80 per cent.; carrots, 80; cauliflower, 90; celery, 90; corn, (dull and sugar) 87; cucumbers, 87; lettuce, 85; musk melon, 87; onion 90; parsley, 70; parsnip, 70; peas, 93; pumpkin, 87; radish, 90; spinach, 84; squash, 87; tomatoes, 85; turnips, 90; and water melons, 87 per cent. These figures are based upon results secured in a sun testing apparatus, where the conditions of moisture and temperature could be controlled. Under ordinary methods the percentage obtained might not run as high, but it would run sufficiently near it to give a good idea of the vitality of the seed.

Testing your seed is advisable, whether you buy your seed or grow it yourself. Unless the germinating power of the seed is known, it is impossible to tell how much seed to sow to the acre. If one is compelled, because of a bad crop, to fall back upon seed that is over a year old, the testing process is necessary.

Some recent French tests have shown that two year old seed gives less leafy plants, and more highly colored roots than fresh seed. With pumpkins, squashes, melons and cherries, when two or three years old, proved most satisfactory. In a general way, therefore, it may be stated that while fresh seed gives the best results, there are some exceptions, more particularly in the case of vegetables. Generally speaking, it may be stated that fresh seed should be used, when it is desired to produce a plant with a strong leaf growth, while for plants which it is desired should head or fruit well, like cabbage, melon, cucumber, etc., it is preferable to use two or three year old seed.



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HORTICULTURE

A Few Remarks on Spraying

Col. W. H. Ptolemy, Stony Creek, Ont.

As the season is fast approaching when, on all well regulated fruit farms, it becomes necessary to make arrangements for a thorough and systematic spraying of fruit trees, in order that we may combat the destroying influences of fungous diseases and injurious insects, it behoves us to make thorough preparations for the carrying out of spraying operations. Spraying has become a necessity not only to save the trees that have already been planted, but to materially increase the production of fruit both in quantity and quality.

Spraying is essential, not only on the farm where a large variety of fruit is grown, but also on the farm where the apple orchard gives the main fruit crop. It will pay to take good care of the apple orchard no matter how small the area.

FOR LARGE ORCHARD USE POWER PUMP

Although the hand spray pump has been and is still a useful machine for use in small fruit orchards, the power machine has become a necessity on the larger plantations and

has come to stay. In some sections, growers club together and secure these on the co-operation principle. Many kinds are built and many different sources of power are utilized. My experience has been with a machine producing power from a gear attached to the wheel.

Three years ago, I purchased a duplex power spray of 200 American gallons capacity. This machine cost \$250, to which I immediately added improvements to the extent of \$15, including a seat for the driver, covering for the pumps, platform in rear for the operator, and a valve on main discharge pipe for straining the mixture before reaching the nozzles.

A HOME-MADE DEVICE

I devised, also, an arrangement for spraying large apple trees, and it works with great expediency. It is as follows: Take two pieces of inch gas pipe, each five feet long, and connect them with a half right angle coupling (a), see diagram. Have holes bored in these pieces one foot apart and short pieces of half inch pipe screwed into the holes. On these pieces, have threads cut on which to place the nozzles, at (b). Have one nozzle pointing upward from top end (c) and have the lower end capped (d). These pieces, when coupled on as described, will form a concave shape, the top half spraying down on tree and lower half upwards on the lower half. This pipe as a whole is then attach-

ed near the centre by two slips (e) to a pine pole about seven feet long and two and a half inches in diameter. The hose from the machine is attached to the pipe near the centre by a coupling (f). The pole should stand upright on the platform in rear of machine and be steadied or balanced by the operator with one hand, while, with the other hand, he steadies himself by holding to the machine.

Any number of nozzles may be used on this pipe at the discretion of the operator. If it is found that material is being wasted, one or more nozzles

The same arrangement may be used for spraying plum, peach and pear trees which have attained any considerable size. Any required number of nozzles may be used.

For spraying grapes, we remove the hose from the pole and uncouple in the centre, cap the ends and hang one on each side of the machine, using about three nozzles on each pipe. This much better than of hose. To make fast time on vines, the work should be done on a calm day so that the near sides of two rows may be done on a calm day.

For tree spraying, we prefer a strong steady wind. This will carry the spray much further and penetrate the foliage much better than can be done on a calm day.

KIND OF MATERIAL TO USE

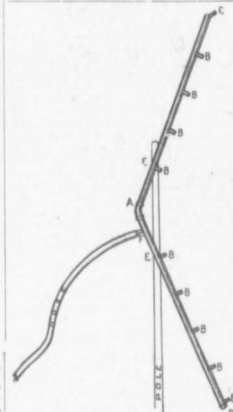
Many different materials have been used for spraying. After trying several different mixtures, we have come back to the old standard, Bordeaux mixture—four pounds lime, four pounds blue vitriol 40 gallons water, and for poison, four ounces Paris green. This mixture is very effective and may be used with perfect safety on the most tender foliage.

Not being troubled with bark louse and San Jose scale, we have always confined our operations to fighting fungous diseases, codling moth, causer worm and curculio. When spraying is done thoroughly and at the proper seasons to successfully combat the above-mentioned pests, there is little to fear from anything else.

WHEN TO SPRAY

For apple trees, three sprays usually are sufficient, one before the blossom opens, one immediately after the fruit sets, and one, two or three weeks later; for pears, one after the fruit sets and another in two weeks time; for plums, as soon as fruit sets and one, two weeks later; for peaches, one as near the opening of the leaf as possible for the prevention of curculio leaf; for grapes, the early spraying before the bloom opens is usually sufficient to prevent the rot.

In closing we would venture to advise those who may be in doubt respecting the advisability of going to the expense of purchasing a power machine, that if their orchards are of sufficient size to warrant the expense, they will never regret the purchase. Increased results in our apple orchard of fifteen acres, paid for our machine the first year that we used it.



A Device for Spraying Large Trees

may be removed and the points covered by caps.

In using this arrangement for spraying large trees, we do not prefer to stop at each tree or even to shut off the spray between trees, but we drive straight on. Considerable material may be wasted in this way, but the advantage gained in the saving of time and in the number of trees covered in a day greatly exceeds any waste of material, while also, the power is kept up to a high pressure.

Wallace Power Sprayers

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POULTRY YARD

Hatching in March

When the March sun begins to make itself felt, and the warmth invites the hens outside, the poultryman, who wants early chicks, is looking for setting hens. There is one thing that many of the uninitiated overlook, however, and that is the fertile egg. If the hen is laying it looks only natural, that if the eggs are incubated, they will hatch, and bring forth a healthy brood of chicks. This may, or may not, be the case. It depends more on the attendant than on the hen herself. It is possible that the food given, and conditions surrounding the hen, are sufficiently correct to induce the hen to lay, but it does not follow that the eggs will hatch.

The annual statistics along this line show that very year the percentage of eggs that hatch, is remarkably small, even with all the knowledge at the disposal of the breeder. For years the cry from all parts of the country has been that the eggs hatch poorly, and many bright hopes are dashed to the ground. This lessens the crop of early chicks, and the breeder has to be satisfied with Mr. Y chicks, instead of March and April.

To be prepared, and have your flock laying fertile eggs in February and March, is the desire of all. This is missed, however, for various reasons. Some, in an endeavor to take too good care of their birds house them too closely, keep them too warm, and feed them too generously. The consequence may be eggs, but with the germ weak, and useless for incubation. Others are either too

opinionated, or too lazy, to look after their fowls, as they are told to do through the farm and stock journals, and with the same result. The difficulty requires early attention, as the fertility of the egg depends entirely on the healthy condition of both the males and females of the flocks.

Those who read the poultry items in the papers and magazines, will know that it has been settled in the minds of the majority of old breeders that the hen is not a hot house plant, but an animal that is well adapted to almost any climate. Instead of being kept closely housed all winter, perhaps, with artificial heat supplied, she is much better off if permitted to apparently rough it a little, and to be treated to plenty of fresh air and unlimited exercise. The hen house that is rendered airy and dry, by the use of a cotton front, in whole or in part, and the flock given a scratching shed directly open to the outer air during day time, will have the healthiest and happiest lot of birds in it. Furthermore, the egg basket will be full of fertile eggs, if other conditions of food, grit, lime and water are properly looked after. All hinge on the giving of fresh air, dry quarters, and plenty of exercise, which are far more important than the hen in getting hatchable eggs, in early spring.

This Flock is a Good Asset

Ed. Note. The Dairymen and Farming World: In 1907, with a flock of 220 hens composed of barred Plymouth Rocks, and buff Orpingtons we marketed 20% dozen eggs from each of the 220 layers. That is a pretty fair average for the size of the flock, and considering that the record covers only part of the year. After September we marketed the hens as coopers. These eggs were sold to a grocer in Montreal at an average price of \$60. a dozen. After deducting \$1.30 a head for expenses, it leaves a nice profit for our work, of \$1.55 a hen. The profit on the flock of 220 would thus be \$341.50.

Ed. Note.—Mr. Bennett is a very successful poultryman. He keeps a large flock of layers over winter and since then the most profitable branch of the farm stock. His experience is valuable therefore to any who contemplate going into the poultry business on a large scale. Elsewhere in this issue will be found pointers from his pen.

Photo Contest

We want to show our readers some of the splendid poultry houses and yards that are scattered all over the country and to induce owners of them to have them photographed; we will offer the following prizes for the best poultry subject, to be houses, yards, docks, or some scene that at once suggests poultry. Subject and quality both considered. Contest closes on April 20.

- 1st prize \$3.00
 - 2nd prize 2.00
 - 3rd prize 1.00
- Conditions.—Photos should be at least 4½ inches, and as much larger as is convenient. They must be a poultry subject, preferably poultry houses, runs or flocks. Photos are sent safer if unmounted, and should be a glass finish.

All photos must reach us before April 20.

We reserve the right to reproduce all photos sent, whether prize winners or not.

Eggs for Setting should be advertised in our Poultry Department.

Take my Poultry-for-Profit Outfit Without Spending a Cent in Cash

Tell me to ship you a PEEPLESS Incubator and a Brooder, and you take your own time to pay for them



You never saw an incubator so certain to hatch strong chicks—nor a Brooder so sure to raise them

You can start raising poultry for profit without spending a cent for the important part of your outfit.

Simply tell me to ship you a PEEPLESS Incubator and a Peerless Brooder—you need them both to start right.

Promise to pay for them in two years' time—that's all I ask you to do.

I will tell you exactly what to do to make a success of poultry raising. I will work with you as your expert advisor, if you want advice. I will see you through—show you just how to make the most money quickest.

I will even find you a high-paying cash-down buyer for all the poultry you want to raise, all the eggs you care to ship.

And I will put a Ten-Year GUARANTEE behind the incubator and the brooder—an absolute, plain English guarantee that puts ALL the risk on me, where it belongs.

I can afford to be sure you know for sure you can make money if you go at it right,—and then I will sell you more incubators and more brooders—

So I can afford to give you a ten-year guarantee—and two years' time to pay for the outfit in.

It will earn its whole cost and plenty besides in the very first year, if you will do your part—and it's no hard part, either.

I know every incubator that's sold on this continent. If don't hesitate to say that the Peerless has them all beaten a mile as the foundation for a poultry-for-profit enterprise for anybody.

Unless I can prove that to you beforehand I won't be able to sell you a Peerless. What I ask you to do is just to let me submit the proof for you to examine.

You do your own thinking. I know. Read my free book—it's called "When Poultry Pays"—and think over what it says. Then make up your mind about my offer to start you raising poultry right—

Remember that the risk is on me. The incubator and the brooder will easily earn you much more than their cost long before you pay me for them.



Suppose you sent for the free book anyway—and sent now. That commits you to nothing and costs you nothing



The Lee-Hodgins Co., Limited
372 Pembroke Street, Pembroke, Ont.

POULTRY EXCHANGE

TWO CENTS A WORD, CASH WITH ORDER

WHITE WYANDOTTE EGGS. None better. \$2.00 for 15. W. Hoebuck, Box 485, New Westminster, B. C.

FOR SALE—Six Choice Barred Plymouth Rock Lockers at a bargain. J. F. Tild V. H. U. N., Pouchers Mills, Ont.

STEPHEN OLIVER, Lindsay, Ont.—20 kinds of fowls—Hampshire, W. Leghorn, R. Cap, Dominans and W. E. Polands.

J. J. SACKETT, Lindsay, Ont.—Breeder of White Leghorns, R. S. Hamburgs and Isured Rocks.

INCUBATORS FOR SALE—Three Models, One Canadian. One Toronto incubator. See also Wre Nesting. F. HODKINS, Danforth Post Office.

FOR SALE—First class creamery, well equipped, in good dairying locality. For further particulars apply to Wm. Hoch, Killisnoe Station, Ont.

BREEDER AND EXHIBITOR of high class Barred Plymouth Rocks, Eggs and stock for sale. Woodbine Poultry Farm, Leslie Kern, proprietor, Freeland, Ont.

MISCELLANEOUS ADVS.

Important to Financial Officials of Cheese Factories for 1908

Forward, by mail, or otherwise, to the undersigned, your statements and cheese buyers' statements, mentioning any deductions necessary, and your accounts will need no audit. I have made cheese factory accounts a specialty for over 25 years. Charges reasonable.

PETER M. WOOD, Ivy Lea, Ont.

SHEEPSHEARERS GUIDE supplies the greatest need of sheepowners or sheep-shearers. Send address for copy for examination. If satisfied send \$50 coin. If not return book.—G. R. FORD, Cambridge, Ohio.

WANTED—Buttermaker with dairy school training and two years' experience, for manufacturing cream gathering creamery. Apply, with testimonials from past employers, to Box F, Canadian Dairymen, Toronto.

WANTED—Man with some experience at cheese-making, for season of 1908. Give references.—W. T. Oliver, Box 164, Drumbo, Ont.

HAMILTON INCUBATORS

THE HAMILTON INCUBATOR CO., LTD., HAMILTON, - ONTARIO

WHY does the Hamilton Incubator hatch every fertile egg?
WHY does the Hamilton Incubator hatch such big, healthy, fluffy, robust chicks?
WHY does every chick hatched by the Hamilton live, thrive and grow so rapidly?

BECAUSE of our Ventilating System, our Heating System and our Regulating System is perfect.

BECAUSE our directions for operating the Hamilton are correct.

BECAUSE our Brooder is of the newest and most novel design of anything on the market for rearing young chicks.

Send us your address to-day and we will mail you FREE one of our catalogues telling you all about the Hamilton Incubators and Brooders, and how to become a successful poultry raiser. *Agents Wanted.*

FOR SALE AND WANT ADVERTISEMENTS in The Canadian Dairymen and Farming World bring good results to advertisers.

Seasonable Hints for Farmers for March

John Elder, Farm Superintendent
Macdonald College

1. Clean the seed grain thoroughly; also purchase root seeds and re-clean them.
2. Examine all machinery.
3. Ploughs, see that the coulters, landlines and points are all right; also attach clevises and whiffletrees.
4. Harrows, see that the teeth are all in and sharpened; also attach whiffletrees.
5. Is the seed drill oiled, and in perfect order?
6. Is the roller in perfect order?
7. Mowers and binders—sharpen all knives and guards; see if any other repairs are needed.
8. Harness—see to washing, repairing and oiling thoroughly.
9. Remove all manure from buildings to fields where hoed crops are to be grown, and spread same as soon

as the snow is gone.

10. Break in any colts that are to be used the coming spring; get them well hardened before spring work begins.

11. See that plenty of firewood is cut and under cover, convenient to the house, sufficient to last the whole year.

12. Repair all fences as soon as possible after frost is out of the ground.

Honey-makers' Honest

A bulletin of the Inland Revenue Department just issued, shows that of 141 samples of honey from various parts of the Dominion analyzed by the Department, 125 were genuine, 3 were doubtful, 1 was sold as a compound, and only 2 were adulterated. The report shows that strained honey sold in Canada can nearly always be relied upon as being the genuine article.

Breeders' Directory

CARDS under this head inserted at the rate of \$6.50 a line a year. No card accepted under two lines, nor for less than six months.

SHEEP

J. LLOYD JONES, Burford, Ont. A fine selection of choice home-bred and imported Shropshire Sheep.

FORSTER FARM, Oakville, Ont., Breeders of Dorset Horn Sheep, Registered Stock for sale. Correspondence cheerfully answered. See large ad.

J. C. ROSS, Jarvis, Ont., Cotswold Sheep Prize-winners at America's leading shows. Imported and home-bred. Also some good Clydesdale Horses.

J.M. COSENS & SONS, Harrison, Ont., C.P.R. and G.T.R. Oxford Down Sheep, Short-horn Cattle, Yorkshire Swine. Stock for sale.

GEO. B. ARMSTRONG, Bowhill Stock Farm, Teeswater, Ont., Leicester Breeding Ewes.

PETER ARKELL & SONS, Teeswater, P.O. and station, C.P.R., Midway, G.T.R., Oxford Down Sheep, show-ring and breeding stock, imported and home-bred.

THOS. ARKELL, Teeswater, Ont., sta. C.P.R.; Midway, G.T.R., Choice breeding stock, Oxford Down Sheep.

JAS. TOLTON & SONS, Walkerton, Ont., Breeders of Oxford Down Sheep and short-horn Cattle; young breeding stock for sale.

J.M. AYER & SON, "Hewlett Farm," Howmanville, Ont., Breeders of Southdowns. Stock for sale.

GEORGE N. HARRIS, breeder of Southdown Sheep and Berkshire Pigs, Lynden, Ont.

P. C. GOSNELL, Ridgeway, Ont., A choice lot Shropshire Horn Lambs. Prices right.

SWINE

LORNE FOSTER, "Glenholton Stock Farm," Myrtle, G.T.R., and C.P.R., breeder of Yorkshire Swine. Young stock for sale.

D. DOUGLAS & SONS, Mitchell, Ont., breeders of Tamworth Swine, B. Turkeys, Toulouse Geese, Pekin Ducks, etc. C. W. Loghorns. Correspondence invited.

KELLY BROS., Hagersville, Ont., breeders of Improved Yorkshire Swine. Stock of all ages for sale. Write them.

H. KOEHL & SON, Gt. Malton, Ont., breeders Improved Yorkshire and Berkshire Swine. Young stock for sale.

J. W. TODD, Corinth, Ont., breeder of English Berkshires and Tamworths. Breeding stock for sale.

ARTEMUS O'NEIL, Brier, Ont., importer and breeder of Hampshire Swine. Write for description, prices, etc.

A. A. COLWELL, Newcastle, Ont. (successor to Colwell Bros.), Short-horn and Tamworth Swine. Choice young stock for sale.

F. O. COLLINS, Hagersville, Ont., breeder of Yorkshire Swine. Good young stock for sale.

D. N. GLAZIER, Manlyard, Ont., Yorkshire Whites and Linnets. Young stock for sale.

S. SNOWDEN, Howmanville, Ont., Box 30, breeder of Large English Berkshires, B. Rocks, Light English Whites, W. and B. Leghorns, Boston Ducks, W. Holland Turkeys.

CATTLE

FITZGERALD BROS., Mount St. Louis, Ont., breeders of Short-horn Cattle and Shropshire Sheep. Offering great bargains now. Long distance telegrams.

GLEN GOW SCOTCH SHORTHORNS, from pure blood strains as imported, Wedding Gifts. Young stock bred by Killbuck Heavy bull, Imp. Ben Lomond and Imp. Joy of Morning. Some fine young bulls from six months to one year of age, also some fine females. Prices right. Wm. Smith, Columbus, Ont.

C. E. BAIN, Tamnonton, Ont., breeder of high-class Short-horns. Registered young stock from best females for sale.

CHAS. CROAT, Brooklin, Ont., breeder of Clydesdale and Short-horns, Gloucester, Mead-owflower families.

A. J. WATSON, Castlederg, Ont., breeder of Scotch Short Horns. 9 young bulls for sale.

A. P. POLLARD, Shadeland Stock Farm, Canton, Ont., breeder of Short-horns and Berkshires Swine. Young stock always for sale. Rural picture.

BERTRAM HOSKIN (Mt. Pleasant Farm), The Gulley, Ont., Breeder of Holstein Cattle, Tamworth Swine. High-class young stock for sale. Long distance phone.

L. O. CLIFFORD, "The Maples," Oshawa, Ont.-Breeder of Herefords. Stock for sale. Long distance phone.

THOS. ALLEN & BROS., Oshawa, Ont. Short-horns, Herefords, Hampden, Symes families.

A. E. MEADOWS, Port Hope, Ont. Short-horn, Malinda, Isabella, Gloucester, Lady Ann families. Choice young stock for sale.

MADISON COOPER, Watertown, N.Y., Pure bred Holsteins. 1000 pedigree Bulls for sale. Sent for price, pedigrees, photographs.

H. W. JEWELL, Howmanville, Ont., Box 179, Breeder of Short-horns, Gloucester, Lavina families.

JOHN BRYDON, Milverton, Ont., G. T. R., Breeder of Short-horn cattle.

W. F. STEPHEN, Box 163, Huntington, Que. Springbrook Ayreshires for sale; some young stock, both sexes.

JAS. ROBERTSON & SONS, Willow Bank Farm, Milton, Ont., Breeders of Short-horn Cattle, Dorset Sheep and Berkshire Swine.

GEO. B. ARMSTRONG, Bowhill Stock Farm, Teeswater, Ont., imported and Homebred Short-horns for sale.

JOHN GARDHOUSE & SONS, Highfield, Ont. See large ad.

MISCELLANEOUS

J. T. GIBSON, Denfield, Ont., Station G.T.R. and Home bred Scotch Short-horns. Choice breeding stock in Lincoln Sheep.

H. BARTLETT, Kimbo P.O., Ont., Lincoln Co. Riverview Stock Farm. Short-horns and Dorset Sheep.

S. BOWMAN, "Elm Park," Guelph, Ont., importer and breeder of Aberdeen Angus Cattle, Clydesdale Horses and Suffolk Sheep. Correspondence invited.

Inquiries and Answers

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

Planting Corn

What is the proper way to plant corn in order to facilitate cutting with the binder, in single or double drift? How far apart should the rows be? Would you advise me to sow Alfalfa and clover together? How much of the former on an acre?—W. G. Fontaine Co., Que.

Your corn could be cut best if planted in single rows, provided a corn binder is used. If a grain bind or is used, the smaller the stalks the easier they can be cut, hence double rows are advisable. Single drills are generally planted 40 inches apart. If the common grain drill is used have four stoppered tubes between each two that are sowing.

It is not advisable to sow alfalfa and clover together. Alfalfa should be sown 15 to 20 lbs. an acre, according to the quality of the seed used.

Cost of Cement Silo

Which is the best silo to build, a cement or wooden one? State the estimated cost of a cement silo 14 x 20, with cement at \$2 a barrel and gravel free.—I. R.

A sound cement silo, well reinforced with wire or iron hoops, will prove the most satisfactory. You can roughly estimate the quantity of cement necessary for the building of a silo, by taking as a basis that one barrel of cement will make from 25 to 35 cubic feet of concrete, depending very largely upon the quality of

Gombault's Caustic Balsam

Warranted to Give Satisfaction.



Has Imitators But No Competitors.

A Safe, Speedy and Positive Cure for Cough, Spitt, Fever, Hoarse Hoax, Strained Tendons, Founder, Wind Puffs, and all Injuries from Spavins, Ringbones and other bony Growths. Cures all skin diseases or Parasites, Thrush, Diarrhoea. Removes all Bunches from Horses or Cattle.

At a House, Ready for Examination, Hgains, Bone Throat, etc. It is Invaluable. Every bottle of Gombault's Balsam is warranted to give satisfaction. Price \$1.00 per bottle, Sold by Druggists. Price by post, charges paid, with full directions for its use. For list of descriptive circulars, testimonials, etc. Address The Lawrence-Williams Co., Toronto, Ont.

Talk Telephones With Your Neighbors

You know how convenient it will be—how quickly you can get help in case of fire, sickness or accident—how much walking and driving it will save you if your home is connected to your neighbors' homes by telephone.

Talk it over. See what they think about putting in an Independent Telephone system. Work up their enthusiasm—and let us tell you what it will cost to put in and operate a telephone system of your own.

CANADIAN INDEPENDENT TELEPHONES make you absolutely independent of the monopoly. When you install our telephones, you buy them outright instead of paying an exorbitant yearly rental, as with their trust.

Write us for an information desired. We furnish full particulars free.

Canadian Independent Telephone Co.

26 Duncan Street, Toronto, Ont.

LIMITED

Alfalfa on Wheat

Would it be advisable to sow Alfalfa on fall wheat? Would spring or fall sowing be the best? How many seeds should be sown an acre; would it be obtained and a good yield would cattle be allowed to graze on it the first fall after the wheat is out? Would it be a good thing to sow in an orchard for pasture?—A Greenock Subscriber.

It is not advisable to sow alfalfa on fall wheat, although rare cases of good catches have been obtained in this way. If sown on wheat it should be sown late in the spring and harvested in.

Alfalfa should be sown at the rate of 15 to 20 lbs. an acre, preferably with a light nurse crop of barley. The seed can be obtained from any of the seed firms advertising in the Canadian Dairyman and Farming World. The price fluctuates with the market. It is priced at present from \$12.50 to \$14.00, depending on the quality.

To get the best results from alfalfa, it should not be grazed, particularly during the first year, as the grazing and tramping is very injurious to the plants. Alfalfa will not stay in the ground nearly so long when grazed, as when sown for hay only.

It is not advisable to pasture or chards, generally speaking. Many object to alfalfa in an orchard on account of its extreme root growth, which interferes more or less with the root system of the trees.

Bordeaux Mixture on Potatoes

Please state the price of Alfalfa a pound, and the number of pounds required to sow an acre. How many seeds to prepare Bordeaux mixture to spray on potato tops.—E. Leeds Co., Ont.

Seed merchants quote alfalfa seed at 25c. a lb., with special rates on larger quantities. (See question "N. alfalfa.") You had better write your dealer and obtain his prices. Sow 15 to 20 lbs. an acre, according to the quality of the seed.

To prepare Bordeaux mixture for potatoes, use the following formula: Copper sulphate (Bluestone) 6 lbs. Unslaked lime..... 4 lbs. Water, (one barrel)..... 40 gals. For the Colorado potato beetle add 8 ounces of Paris green to the foregoing formula.

Dissolve the copper sulphate (by suspending it in a wooden or earthen vessel containing four or five or more gallons of water.) Slake the lime in another vessel with water. When slaked, is lumpy or granular, it should be strained through coarse sacking or a fine sieve. Pour the copper sulphate solution into a barrel; half fill the barrel with water, add the slaked lime, fill the barrel with water, and stir thoroughly. It is then ready for use. It is important not to mix the lime water and the sulphate of copper solution before diluting.

Protein in Buckwheat

What is the Protein Content of Buckwheat? I have been feeding buckwheat to my cattle lately and have thereby greatly increased their flow of milk.—D. York County, Ont.

Buckwheat is comparatively rich in protein, analysis showing it to contain 10 per cent.

Clipping Coat and Breeding Filly

If you clipped or singed a colt would it have to be done every year, because of the hair, having a tendency to grow longer each year? At what age can a general purpose filly be bred, and what kind of a horse would be most suitable to breed her to? Hackney, Roadster, Clydesdale or general purpose?—E. R., Locust Hill, Ont.

Horsemen differ in their opinions upon the effects of clipping horses. The majority believe, however, that the hair grows longer after each clipping. The hair of the horses naturally becomes longer as the horse ages.

If your filly is of good size it would be well to breed her late in the season, when she is two years old. What

to breed her to, is an open question, depending upon your local conditions. If you wish a light horse, you had better use the roadster stallion. If you desire heavy offsprings use the Clydesdale, but by no means use the general purpose stallion.

Advertisement for 'Bone Spavin' by Fleming's Veterinary Adviser. Includes an illustration of a horse's leg and text describing the product's benefits for various ailments.

N. SANGSTER ORMSTOWN, QUE.

Breeder of pure-bred Holstein-Friesian cattle; nothing but record of record cows kept in our herd. Stock for sale of both sexes. Write for what you want; visitors welcome.

ELM SHADE STOCK FARM "The Home of De Kol Holsteina"

FOR SALE—Calves of both sexes from 1 to 18 months old, also 1 heifer 18 months and 1 heifer 2-year-old.

JOHN CRUISE - Lachute, Que.

SPRING BROOK CLOUSTENS and TAMBORNS

If you want a choicebred, high-class Holstons or Tamworth, inspect my herd and get my prices. Herd headed by Nanset Picierie-Pail, Toronto winner, Three named dams Official Records, over 4 lbs. of butter in a week. Dam gave 15.000 lbs. milk in 11 months as a 2 year old. Tamworths of best quality. Prize-winning (Imp.) Knowle King David in best blood at head of herd. Stock of all ages for sale. Write or come and see. A. C. BALLMAN, Brisbane, Waterloo Co., Ont.

Spring Brook Ayrshires

Produce nearly 7,000 lbs. of milk each, testing 4.9 per cent, of butter-fat during the years of 1904, '05 and '06. Having sold one of my farms, I offer for sale about 30 head of various ages. Write for prices.

W. F. STEPHEN, Box 163, Hastingden, Que.

AYRSHIRE BULLS

One March and one April calf, also a few fat calves by the champion Douglassdale (last) W. W. Ballantyne, "Nelpath Farm," Stratford, Ont. Long Distance Phone

RAVENSDALE STOCK FARM

Ayrshires, Clydesdales and Yorkshires One Yearling Bull, one Senior, and one Junior Bull Calf for immediate disposal at bargain prices. Cows and Heifers bred from good producers for sale at all times. Imported and Canadian stock. W. F. KAY, Phillipsburg, Que. St. Armand Station, 50 miles from Montreal on G.T.R. Bell Telephone.

AYRSHIRES FOR SALE

Six Ayrshire Bulls, 16 to 30 months old. Twelve Ayrshire Bull Calves, 2 to 20 months old. Female Ayrshires, all ages, prices reasonable. One Kooxoo Pony Stallion, price reasonable. Apply to D. RODDIN, Manager, or HON. W. OWENS, Proprietor, Riversdale Farm, Monte Bello, Que.

Annandale Holstein Herd

Prince Posch Calamity heads the herd. His dam, Calamity Jane and sire's dam (Aval Posch) in official test averaged 86 lbs. milk a day, and over 36 lbs. butter a week, one of the greatest sire living.

GEO. RICE, Tilsenburgh - Ontario

JOHN GARDHOUSE & SONS Highfield, Ont. Weston Sta., G.T.R.

Present offering some grand imported shire stallions and fillies selected from the stud of R. Moore & Son, Nottingham, England. Some splendid animals and offered at a bargain for the kind. Also a number of fine young shorthorn bulls, good enough to get inside the money at Canada's leading show-rings. Females of choice breeding of all ages.

Write or Call at Farm Four Miles from Weston Station

Dalgety's Clydesdales

I have at the present time to offer a few newly imported splendid individuals that combine weight, size, conformation, quality and style with soundness and unexcelled breeding. My prices are right for the goods, and terms reasonable. Come and see my latest importations at their stables, London, Ont.

JAMES DALGETY, Fraser Hotel, LONDON, ONT.

FOR SALE

The purebred Clydesdale colt "Improver" 12379, American Clydesdale Association. Bay Colt, white face and hind legs, white up to hocks. Foaled May 17th, 1905. Sired by Scottish Baron (11038), Dam Queen Mab (9150) by Home Secretary (4291), Gr. Dam Lady Mab (4094), by St. Cuthbert (1825), G. Gr. Dam Lady Mab (Imp.) (1518), by Lord Colin Campbell (1475), G. G. Gr. Dam Jess of Drumfold (1720), by Jack's of the Lad (401), G. G. Gr. Dam Rosie, by Young Clyde (1260). Fine up-standing colt with lots of quality and best of feet and legs. Weighed Jan. 1st, over 1500 lbs. in moderate condition. Only covered three mares and all are safe in foal. Must be sold. Price very reasonable. Eligible for C.S.B Address MUNGO McNABB & SONS, Lawrence Station P.O.



Imp. Clydesdales (Stallions & Fillies) Hackney's, Welsh Ponies

I have now on hand Clydesdale Stallions and Fillies—Scotland prizewinners and champion; Hackney fillies and Hackney Pony; also Welsh Ponies. There are no better animals, nor no better bred ones, than I can show. Will be sold cheap and on favourable terms. A. AITCHISON, Guelph P.O. and Station



A Few Good CLYDESDALES & HACKNEYS

A very choice lot of Imported Clydesdale Stallions and Fillies, sired by such noted getters as Baronson, Baron Mitchell and Marcellus.

In Hackneys I have to offer two big trapgar handsome Stallions and two magnificent sized and exceptionally bred mares from three to five years of age. All show high straight action and combine the choicest breeding. In Fillies I have a number of prize winners at Canada's leading shows, as well as a number of coming show ringers to offer. Prices will be right for the goods and suitable terms can be arranged. Come and see them.

W. E. BUTLER, - Ingersoll, Ont.

JOHN BOAG & SON Importers and Breeders of High-class Clydesdales

We have to offer fine imported Clydesdale stallions and fillies. Carefully selected consignment just landed. They are the right kind, combining size and draftiness with desirable style and quality. They are carefully selected personally, and are from leading sires in Scotland and with good breeding on dam's side. Write and tell us what you want.

BAVVIEW FARM, QUEENSVILLE, ONT. Bayview Station, Newmarket, Ont. (G.T.R.), Metropolitan Street Railway runs within 1/2 mile of farm. Telephone and Telegraph at Queenville.

CLYDESDALES and CHEVAL NORMANS

New importations, all ages, some ton weights. The best of Quality and at low prices. Must sell. Write for breeding and prices. A few French Canadians.

ROBERT NESS & SON Long Distance Phone. "WOODSIDE", HOWICK, QUEBEC

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The Canadian Dairyman AND Farming World

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World, Limited.

1. THE CANADIAN DAIRYMAN AND FARMING WORLD is published every Wednesday, 11 pages in length in the British Columbia, Manitoba, Western and Ontario, and Bedford District Quebec Dairyman Associations and of the Canadian Holstein, Ayrshire, and Jersey Cattle Breeders' Associations.

2. SUBSCRIPTION PRICE, \$1.00 a year, strictly in advance. Great Britain & Ireland, 12s. 6d. For all countries except Canada and Great Britain, add 50c. for postage. A year's subscription free for a club of two new subscribers.

3. REMITTANCES should be made by Post Office or Money Order, or Registered Letter. Postage stamps accepted for amounts less than \$1.00. On all checks add 10 cents for exchange fee required at the bank.

4. CHANGE OF ADDRESS—when a change of address is ordered, both the old and the new addresses must be given.

5. ADVERTISING RATES quoted on application. Copy received up to the Friday preceding the following week's issue.

WE INVITE FARMERS to write us on any agricultural topic. We are always pleased to receive practical articles.

CIRCULATION STATEMENT.

The paid-in-advance subscriptions to The Canadian Dairyman and Farming World exceed 1100. The total circulation of each issue, including copies of the paper sent subscribers who do not pay in arrears, and sample copies, exceeds 14,000.

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

OUR PROTECTIVE POLICY.

We want the readers of The Canadian Dairyman and Farming World to feel that they can rely on our advertisers with our assurance of the advertiser's reliability. We try to admit to our columns only the most reliable advertisers. Should any subscriber have cause to be dissatisfied with the results he receives from any of our advertisers, we will investigate the circumstances fully. Should we find reason to believe that any of our advertisers are unreliable, even in the slightest degree, we will discontinue immediately the publication of their advertisements. Should the circumstances warrant, we will also continue through the columns of the paper. Thus we will not only protect our readers from unreliable advertisers as well. All that is necessary to entitle you to the benefits of this Protective Policy is that you include in all your letters to advertisers the words: "I saw your ad. in The Canadian Dairyman and Farming World. Complaints should be sent to us as soon as possible after reason of dissatisfaction has been found."

COMMUNICATIONS should be addressed

THE CANADIAN DAIRYMAN AND FARMING WORLD
PETERBORO, ONT.

TORONTO OFFICE:

Rooms 505-507 Manning Chambers, 72 Queen
St. West, Toronto.

THE ASSOCIATIONS AND MILK INSPECTION

It is unfortunate that the conditions under which milk is delivered to the cheese factories of Ontario, and paid for, make it necessary for the Eastern and Western Dairyman's Associations to employ three officials to look after milk inspection, and the prosecution of patrons who add water or take the cream off the milk. Their action, however, is to be commended. It will relieve the instructors from all testing. They will be able to devote their full time to securing a cleaner and better flavored milk from the patrons, and to aiding the maker at the end of the business. Besides giving the needed attention to the sanitary conditions of the factories, and dairy farms supplying milk.

But in this age of dairy knowledge and advancement, the need for these inspectors should not have arisen.

Every factory has it within its power to do away with this need at little cost. Pay for milk supplied for cheese-making by test, and the temptation to water and skim is removed. There are many factories doing this with success, and everyone of them could do so. Dairying would be upon a higher plane if this were done.

We have heard the statement that there is money in this milk inspection business for the associations. The experience of the Western Association, with one inspector, last year, shows this, and this, we understand, was a strong factor in inducing the Associations to extend and assume full responsibility for the work the coming season. They should have a higher aim than this. While, as we have stated, it is necessary under the circumstances to employ inspectors for the special purpose of milk inspection, more energetic efforts should be made to induce factories to pay by test, and do away with the need. Has all been done that should be done in this direction? Do the speakers at dairy meetings emphasize it as much as they should? Is any systematic effort being made to induce patrons to adopt this system?

WILL BREEDING MILITARY HORSES PAY?

Attention is again directed to the deficiency in the national horse supply of Great Britain, by a recent statement of a war official that at the end of a year's war, 180,000 cavalry horses would be required, whereas there are only 150,000 horse in the United Kingdom. The situation is looked upon as grave, from a military standpoint.

The British Government is said to have under consideration a scheme for the encouragement of the breeding of horse suitable for military purposes, and some influence is being brought to bear to have it apply to Canada, or at least to have the British authorities keep in view the possibilities of securing a supply from Canada.

Canada has had some experience in supplying military horses. The South African war took from Canada thousands of horses, and helped to clear the country of a lot of inferior types and misfits. Yet the prices paid and the interest up to which the British authorities would go in securing military horses, showed that it would not pay Canadian farmers to breed specially for this trade. This was shown pretty clearly by Mr. Robert Miller in his address at the horse banquet in Toronto a few weeks ago.

If the British authorities have any scheme that will enable us to get a fair price for military horses, we can assure them, and also those in Canada who are urging the raising of this class of horses, that we will go into the business of breeding them. But until profitable prices are assured, it will be wise for us to continue to raise the heavy draft, and high class carriage and saddle horses. If there are any misfits, as there is bound to be, these can be sold for military purposes. The present class

of horses which are being raised most extensively, are in good demand at profitable prices. To change over to some other class, unless the prices are equally as good, would be poor business.

MORALITY IN ADVERTISING

More and more, publishers are coming to recognize the fact that they are under just as great a moral obligation to see that their advertising columns are kept free from objectionable advertising as they are to see that the tone of their reading columns is maintained at a high standard. The belief that the publisher is responsible for the character of the advertising carried in his paper, has seldom been more forcibly expressed than it was at the recent convention of the Canadian Press Association, by Mr. Merrill McCormick, of Chicago, the publisher of the Chicago Tribune, one of the greatest and best news papers on the continent.

"I don't God," said Mr. McCormick, "the moral standard of advertising conditions in America is one thousand per cent. higher than it was five years ago. The newspaper is not as honest as its advertising columns. It is only as strong as the confidence it can arouse in its readers. It can make them believe, not only in the news which it publishes but in the advertising which it publishes. We have learned to look the truth straight in the face, and to admit that a filthy medical advertisement is a filthy corner in the newspaper, and that a lying commercial advertisement is a lie in the newspaper, and that the deceptive financial advertisement is a deception in the newspaper."

What Mr. McCormick said of news papers, is even more true of the agricultural press. There are scarcely more than half a dozen purely agricultural publications in Canada. Being published only weekly or semi-monthly, they should be able to maintain a higher standard than is possible in the case of papers that are published daily. Several of the leading farm papers in the United States, including the Orange Juice weeklies, and the Farm Journal, have refused hundreds of thousands of dollars worth of patent medicine, electric belt and premiums given free advertising, during the past few years. Our Canadian papers should not be blind in a matter of this kind.

There is another side to this question. It was touched on by Mr. McCormick. The more the publisher can induce his readers to buy from his advertisers, the more profitable his advertising columns become. When, however, a reader sees an article advertised extensively, buys it, and finds that he has been defrauded, he will be slow to patronize other advertisers in that paper. On this point Mr. McCormick said:

"We must keep out the thieves and the liars from our papers; we must make our readers feel that they will get a square deal in our markets, and come and buy from our printing stalls with the confidence that they will do better than they can at any other market. This is not a question of morality, or a question of expediency, or a question of commercial sanity. The public does not want to be deceived. The public has a memory—the public is

an Indian and never-forgets.

"I look forward to the time when a newspaper will be able to print at the top of the advertising page, 'We are responsible for every line of advertising that we print. We guarantee a square deal to you. We pledge ourselves to make good any loss that you incur through answering any advertisement that we print.'"

Legitimate advertisers should protect their own interests by refusing to advertise in papers that carry questionable advertising. Were our leading advertisers to take a stand on this question they would soon force our papers to take the stand on this question that they should adopt of their own accord.

As far as lies within our power, we try to admit to the advertising columns of The Canadian Dairyman and Farming World, the advertisements of those firms only that we know to be reliable. Recently we have refused hundreds of dollars worth of questionable advertisements. We want our readers to know that they can do so safely with every firm whose advertisement we carry. Our protective policy, as published on the first column of this page, is intended to safeguard the interests of our readers. We hope, therefore, that our readers will feel free to patronize our advertisers, and that our advertisers will appreciate and support us in the stand that we have taken.

A FACTOR FOR THE BUTTER MAKER TO RECKON WITH

While the high price of butter this winter has been a good thing for the producer, it has had the effect of greatly increasing the demand for margarine, or butter substitutes, notably in Great Britain. When the English shopkeeper cannot sell profitably at 1s. 2d. a lb. (25c.) the demand falls off, and the average consumer begins to look around for something to take the place of butter. For the past few weeks, butter has ranged in price in Great Britain, at from 140s. to 150s. a cwt., (112 lbs.) when he buys at these figures the shopkeeper has to sell at, at least, from 1s. 4d. (32c.) to 1s. 6d. (36c.) a lb. to make any profit.

These high prices for butter have created a little "boom" in the margarine business, and the middle-class housewife is having forcibly brought to her attention the fact that butter substitutes are eatable, and that they can be used for cooking purposes. One English factory is making upwards of 700 tons of margarine a week, and others have greatly increased their output. The "neutral" which takes the place of the butter fat in the mixture, is largely imported from the United States, and that country is benefited to some extent. A feature of the manufacture of margarine that is worth noticing is that everything is done in the most cleanly manner, and the conditions under which it is made are of the most sanitary kind. The manufacturer does not neglect to make this known in advertising his goods.

This increased sale of margarine may have some effect upon the future of the butter trade in Great

Britain. In periods of high prices, the consumer of the middle class once having learned that a wholesome substitute can be bought for butter, will turn to it again, and once having acquired the taste, may, even when butter prices are normal, use it in preference to poor, or medium grade butter. Dairy-men should remember, however, that margarine is a "substitute," and not butter. If sold for what it really is, the butter-maker who turns out a first-class article, has little to fear.

In Canada no substitute for butter is allowed to be manufactured. There is nothing to fear, therefore, in regard to the home market. But we are dependant largely upon Great Britain for a market for our surplus butter, and margarine will have to be reckoned with.

The public accounts presented to the Legislature recently show a surplus of \$698,173.58 of revenue over expenditures for the year ending December 31st, 1907. This is very gratifying. At the same time it is well to note that the expenditure for the year shows the large increase of \$994,066.54. The revenue increased by \$1,130,940.80, that of 1906 leaving the surplus mentioned. This is fortunate. At the same time it would be well to bear in mind that lean years may come. It is always difficult to reduce expenditures after a certain standard has been reached. It would be well, therefore, to go a little slowly even though the revenue is buoyant.

Money or Pure Bred Stock for You

The offer of The Canadian Dairyman and Farming World to give pure-bred stock free to those of our subscribers who send us lists of new subscribers, has attracted much attention. Recently we have secured some nice lists of new subscribers from the opposite extremes of this great Dominion. From away down in Nova Scotia, Mr. Colin F. MacAdam, of Antigonish Co., Nova Scotia, sent us last week the names of 43 new subscribers, at one dollar a year each, and has chosen a pure-bred Holstein heifer calf as his reward. Mr. MacAdam writes us that he is securing some more new subscribers for us, with the object of winning another premium.

From British Columbia, as we noted in a recent issue, came a nice list of 21 new subscribers for The Canadian Dairyman and Farming World, all at one dollar a year. Master Ray C. Wells, of New Westminster Co., B. C., asked for three pure-bred pigs, as his reward. Last year, Mr. Duff, of Northumberland County, Ont., obtained over 100 subscribers for us, and won some pure-bred pigs, and two pure-bred Holstein calves, each of which afterwards won first prizes at the Campbellford, Ont., fair.

These two lists, received recently, coming, as they do, from widely different points, show how popular The Canadian Dairyman and Farming World is in all parts of Canada. As we are receiving numerous requests for information about our offer for new subscribers, we repeat them:

PURE BRED STOCK

We will give a setting of eggs, of any of the standard varieties of fowl, for only two new subscribers.

A pure bred pig, of any of the standard breeds, from six to eight weeks old, with pedigree for registration, for only seven new subscribers,

at one dollar a year.

A pure bred Ayrshire, or Jersey bull or heifer calf, with pedigree for registration, for only thirty new subscribers, at one dollar a year.

A pure-bred Holstein heifer calf for forty new subscribers.

CASH PRIZES

If you do not desire to take advantage of any of the foregoing offers, we will give the following cash prizes:

\$1,500 for only 1,000 new subscribers secured within a year from the time you start work, at only one dollar a year.

- \$1,200 for 850 new subscriptions.
- \$1,000 for 750 new subscriptions.
- \$900 for 700 new subscriptions.
- \$700 for 650 new subscriptions.
- \$600 for 600 new subscriptions.
- \$500 for 550 new subscriptions.
- \$400 for 500 new subscriptions.
- \$300 for 450 new subscriptions.
- \$200 for 400 new subscriptions.
- \$150 for 350 new subscriptions.
- \$80 for 300 new subscriptions.
- \$35 for 50 new subscriptions.

All the subscriptions must be new and for one year at a dollar a year each. We positively guarantee to pay the prizes mentioned.

Smaller cash prizes are offered for smaller lists. If you are interested, write us for sample copies, and fuller particulars. Now, while auction sales are numerous, is a splendid time to secure clubs of new subscribers. Remember that The Dairyman and Farming World is the only purely farm paper in Canada published weekly for one dollar a year. Write to the circulation manager, The Dairyman and Farming World, Peterboro, Ont.

The Dairy Industry of Prince Edward Island

The report of the co-operative dairy business of Prince Edward Island, for 1906-7, as presented at the annual convention of the Prince Edward Island Dairy-men's Association, recently, is as follows:

In 1906 the milk supplied the cheese factories amounted to 22,377,625 lbs., and the milk supplied the butter factories to 9,706,125 lbs. In 1907 the milk supplied cheese factories amounted to 24,628,549 lbs., and to butter factories, 8,217,134 lbs.—an increase all told, of 556,843 lbs. To the patrons the net value of the output was of cheese factories, in 1906, \$307,508.45, and in 1907, \$219,677.33—an increase of \$12,174.88; of butter, in 1906, \$74,609.77, and in 1907, \$68,222.95—a decrease of \$6,328.79. So that the net increase, all told, was \$5,558.09.

The number of patrons supplying milk to cheese factories was, in 1906, 2,999, and in 1907, 3,160—an increase of 161.

The number of patrons supplying milk to butter factories was, in 1906, 672; and in 1907, 600—a decrease of 72. The milk contributed by each patron averaged, in 1906, 9,917 lbs., and in 1907, 8,268 lbs., a decrease of 599 lbs. a patron.

The net average return to each patron was, in 1906, \$78.66, and in 1907, \$75.14, a decrease of \$3.52.

The gross value of cheese and butter manufactured in this province was in 1906, \$357,362.86, and in 1907, \$364,715.08, an increase of \$7,412.22.

Japanese Consumption of Cheese

Among other western habits that are becoming prevalent among the Japanese, says the Weekly Report on Trade and Customs in the consumption of cheese. This, like the use of butter in the East, is an acquired taste. In the course of the next few years, it will develop to a considerable extent. Already there is quite a reasonable importation of select Canadian cheese put up in jars or packages, but this is owing to a demand from the foreign population residing at the great shipping ports.

1 + 1 = 2

AND IT'S JUST THAT PLAIN THAT

DE LAVAL CREAM Separators




Are better in every possible way than any other system or Separator. The Reputation is the Recommendation.

Have It Demonstrated

THE DE LAVAL SEPARATOR CO.

173-177 William Street, MONTREAL

WASH DAY WILL ALSO BE IRONING DAY



What a happy prospect for the busy housewife—washing and ironing, the nuisance and spoiling of house affairs, all over in the same day, if you wash with a

"1900 GRAVITY" WASHER

What a priceless boon for the woman who is busy or not strong to have a washer that will clean a tubful of clothes in six minutes and do it better than if it were done by hand in an hour's time or more. Besides, it's all so simple. The clothes remain stationary in the tub and the easy swinging of the tub to and fro, swishes the water through the clothes, while the rise and fall presses out the dirty water.

We want you to try the 1900 Gravity Washer—it will cost you nothing to learn the truth. Don't fail to read our

FREE TRIAL OFFER

We are the only people on this continent that make nothing but washing machines, and that are willing to send a washer on

ONE MONTH'S TRIAL FREE


to any responsible party—without any advance payment or deposit whatsoever. We ship it free anywhere and pay all the freight charges. You wash with it for a month and if you are not satisfied the machine will be sent back at our expense. This proves our faith in the machine.

IT COSTS YOU NOTHING

to find out how it pays for itself—shall we send you a "1900 Gravity" Washer on a month's free trial? Or if you want further information about the best washer on the market, write to-day for our handsome booklet with half-tone illustrations showing the methods of washing in different countries of the world and our own machine in natural colors—sent free on request.

Address me personally, F.W.C. RACH Manager
The 1900 Washer Co., 365 Yonge St., Toronto, Canada

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



Creamery Department

Dairy 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.

Points in Judging Dairy Products

The arrangement and judgment of butter at shows was a question handled by Prof. W. J. Carson at the recent Manitoba Dairymen's Convention. He said that he had visited many shows, and was surprised at the lack of facilities available for handling dairy products. The defects lay in lack of means for protecting the products from heat, and from handling by spectators. He showed a plan of a refrigerator that would be suitable for the average show, and estimated the cost of one 12 feet long, at \$30. This refrigerator was constructed on the same principle as the one used at the Manitoba Agriculture College, and it was found quite practicable to keep the temperature down to 34 degrees. The ice box should be about a foot deep, and should run practically the whole length of the refrigerator.

More attention should be paid to dairy products than is now given, said Prof. Carson, and prizes should be at least as good as those in other classes of exhibits. As a rule, where the prizes were poor, the exhibits were poor. In judging butter and cheese, a score card should be used. On this card 45 points are given for flavor, 25 for body, 15 for color, 10 for salt, and 5 for finish. Each agricultural society should print a copy of the score card in their prize list.

Prof. Carson also strongly urged the necessity of choosing competent judges—men who were familiar with the requirements of the market.

Should Sell Direct

The necessity for Canadian dealers or manufacturers of dairy products, getting in touch with foreign buyers direct, instead of through commission merchants in New York and San Francisco, was brought to my attention a few days ago, reports Commercial Agent W. T. K. Preston, from Japan. In making inquiries about a certain brand of well known Canadian cheese, I was informed that a Yokohama firm, which is one of the largest in the East, had ceased importing this manufacture, because a shipment that had been received through a San Francisco commission merchant had proved very unsatisfactory—in fact quite unmarketable. The San Francisco house refused to discuss the subject, when complaints were made, and the result was that the commodity was dropped from the list of future purchases, and was replaced elsewhere.

There is an undoubted possibility of erecting a good market in the East for Canadian cheese. But this, like that of other commodities, will necessitate active business enterprise.

CANADIAN BUTTER IN JAPAN

The cost of transportation of butter from other countries to Japan in comparison with the freight expenses attached to the import from the Dominion is quoted by Mr. Preston as follows:

Australia—Distance from Yokohama 6,700 miles, the journey occupying six weeks. Butter is carried in refrigerated storage all the way at one penny a lb., or at the rate of \$40 a ton.

Denmark—Distance from Yokohama 12,900 miles, occupying 56 days, \$10 a ton, or, if in cold storage an increase of 25 per cent., making the charge \$12.50 a ton.

Holland—Distance from Yokohama

12,900 miles, occupying about six weeks, \$10 a ton; or, if carried in cold storage, an increase of 25 per cent., making the charge \$12.50 a ton.

Calgary—Distance from Yokohama 640 miles by rail, and 4,300 miles by sea, totalling 4,960 miles, occupying about 14 days, at the rate of \$36 a ton without cold storage on the ocean.

The Preparation and Care of Culture

We, as cheese-makers, must bear in mind that when we use a culture of starter in a quantity of milk it not only hastens the ripening of that milk, but the flavor of the cheese or butter made from that milk will depend somewhat on the flavor of the culture or starter used.

Let us look back to the history of starters, and we find they were used in the dairy industry a great many years ago. The fact that starters helped in the manufacture of dairy products was recognized years ago by practical men, even before scientists recommended the use of pure cultures. The introduction of pure cultures only dates back to 1890. Prof. Storch recommended their use in creameries in Denmark. In speaking about the different kinds of starters, we might classify them under two names: first, a natural; second, a commercial.

PREPARING A NATURAL STARTER

I would suggest the selection of a number of different samples of the best milk coming into the factory into sterile glass jars, allow the samples to stand overnight, at a temperature of about 70 degrees F. The sample which coagulates into a smooth, uniform curd, and has a pleasant acid taste and smell, is the one I would use as a natural starter.

I would advise makers not to bother with natural starters. I do not condemn a natural starter, for I believe that good starters have been made from a natural mother culture. I think the best results are obtained from commercial cultures by following the directions set out. With the pure culture, we should be able to make a good, clean-flavored starter, but here is where we start our mistakes. We assume that all commercial cultures are of pure, and contain organisms suitable for practical work in the dairy, and should produce a pleasant flavor and no gas, but we should remember that commercial cultures are liable to become contaminated if not used as soon as opened.

It is essential to have a perfect system in preparing cultures. We should exercise care in the selection of cans, see that they are well made and seams well soldered, and provided with snug-fitting lids. For general use in the factories, the ordinary shot-gun cans, about eight inches wide and 24 inches deep, holding about 50 pounds, answer the purpose very well, and we would recommend their use in preference to a larger can, as the milk is easier heated and cooled when in small quantities.

More care should be given to the cleaning and sealing of cans in which the starter is kept from day to day. The use of a stick or paddle, or a common dipper for stirring the milk should be discarded and replaced with a small wire-handled dipper, and used for nothing else. My reason for condemning the stick or paddle is, that the wood becomes more or less saturated, and the cream gathers upon the upper end, and perhaps it is not thoroughly scalded before using next day. The common dipper often gets broken about the handle, and the worst of the sourness of contamination. Too much care cannot be exercised in the selection of the milk at the weigh porch.

FRictionless EMPIRE CREAM SEPARATOR

Here are 10 Points Wherein It Excels

and, of course, there are a great many more which you will find in our Big Free Dairy Book which we will mail to you and as many of your friends as you suggest. It is considered the most interesting Dairy Book of the day. It cost us a lot to prepare, but it is free to you. Send for it to-day.

1 Heavy three-ply tin supply can. Holds good supply of milk and is low enough for a woman to easily pour milk into it.

2 Feed cup, skim milk cover and cream cover made of pressed steel, tinned. Absolutely true, and doubly as strong as the tin kind used in others.

3 Light weight bowl—chief cause of easy running.

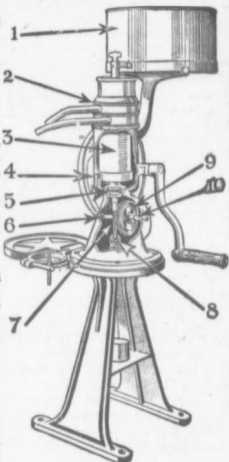
4 Very simple brake, applied at the base of the bowl, the only place where a brake may be used without injury to the bowl. No wear on bowl—all on a little leather washer.

5 Ball Neck Bearing, which eliminates all wear on the spindle. Takes but ten drops of oil a day.

6 Case hardened pinion gear cut from worm wheel shaft. No chance of working loose. Practically indestructible.

7 Spindle threaded to bowl. If ever wear should occur it can be unscrewed and replaced at less cost than on any other separator.

8 Three ball bottom bearing on which the point of the spindle revolves when bowl is in motion. The point costs little to renew. No wear on the spindle proper. Bowl will always adjust itself to proper centre.



9 Worm wheel clutch stops all mechanism when crank is stopped, with exception of bowl and worm wheel. No lost motion in again starting crank as clutch grips instantly and without jar to the mechanism.

10 Points on worm wheel shaft are case hardened until they will cut glass. Fit into case hardened sockets. Wear is reduced to a minimum. Worm wheel and its shaft may be taken out and replaced by just removing a plug on one side. Cannot be put back wrong. In fact, there is not a single part of the Frictionless Empire that can be placed anywhere but in its correct position.

Free Trial We will send the Empire Frictionless to you for free trial if you will just say so.

The Empire Cream Separator Company of Canada

Western Office, Winnipeg.

Toronto, Ont.

also a curd test made frequently of the milk you select. Last season I made a number of curd tests of the milk that was selected by different makers for their cultures; some of the samples were quite off in flavor, another very gassy, and another floated in one hour. By selecting the morning's milk, it will generally give best results.

In heating the milk for cultures, some of the makers use a large milk can, and turn a live steam pipe into the milk direct from their boiler and claim good results. This cannot be discarded too soon, except where

there is no other means of pasteurizing, and not using boiler compounds, for where boiler compounds are used and the water not any too pure, it looks as though it was a step in the wrong direction.—E. N. Hart.

Concluded next week.

B 150 Songs, Words and Music 10 cents.
C 150 Comic Recitations 10 cents.
D 20 Humorous Dialogues 10 cents.
E 100 Conundrums and Riddles 10 cents.

S By Mail Postpaid.
USEFUL NOVELTIES CO., DEPT. F,
TORONTO, CAN.

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.

Cool Curing Commended

The cool curing of cheese was strongly advocated by Dairy Commissioner Riddick, at the Dairyman's Convention at Cowansville, Que. The Government Illustration Station had done good work, and in other sections of Quebec, and of Canada, it was being followed out better than at Cowansville. The reason for apathy at Cowansville, was that the factory was owned by an individual, instead of by the farmers, and this factory had derived no good from the superior quality of the cheese, whereas the farmers who would derive the benefit would not put money into a cool curing plant belonging to another man.

During the last ten years agitation had been made to the Dock Commissioners at Liverpool and London, and better cooling services secured. Mr. A. A. Ayer, of Montreal, pointed out that this had been the

great deal of worry to the maker, as well as the loss of clean waste, not only to the extent of its own sell, but also to that of the whole lot.

It is the duty of every patron of a cheese factory to see that his neighbor takes proper care of his milk, and delivers it in a pure and cleanly manner, for the protection of an article of the highest quality. He will be doing himself a double injury by neglecting to do so. His neighbor will undo what he is attempting to accomplish, and again it is no encouragement to try to improve conditions. Every patron who has not good cold water to cool his milk, should put up a supply of ice. To keep milk sweet it is essential that it be kept cool, and should be cooled to 50 degrees at least, so as to check the development of acid and all undesirable bacteria. The morning's milk also should be cooled before mixing, or put into separate cans, before taking to the factory. If this rule were adopted by factories throughout Manitoba, the factories would be able to make a much better quality and a better average cheese. Consequently all who are interested in the business would be money ahead, and there would be money saved, and there would be greater encouragement all round.

One can of over-ripe or off-flavor milk will spoil a whole vat. As an illustration, we will take the spring of last season, 1907. The weather was cool. The milk went to the factories in first class shape. The quality of cheese made was of the best. As soon as the warm weather came, however, the trouble began, and all kinds of bad flavors presented themselves. One of the worst was gassy milk, causing pinholes in the cheese. In some cases they were so numerous as to cause the curd to float. These organisms which cause this abnormal condition in the milk are very numerous in manure particles, and in the hair of the animals, which become dislodged during the process of milking, and fall into the pail, and there find the conditions suitable for their growth and multiplication.

There are other causes of gassy milk, such as when it is left too close to pig pens, and troughs, cow yards, and by fine dust blowing into it. Cows lie down in the manure and dirt, and fall into the pail, and if cows are not cleaned off well, this is stirred up, and falls into the milk. The milk being warm the bacteria grow very rapidly, and if the milk is cooled, they are checked only for the time being, but on being warmed up again at the factory, they will continue to grow and multiply, as before. This difficulty can be overcome by brushing and dampening the udders and flanks of the cows, before beginning to milk, and then removing the milk to a place where the air is pure, and cooling it down to a temperature of at least 60 degrees.—N. J. Kuneman, in address to Manitoba dairymen.

Is Making Good.—Dr. C. A. Publow, who recently accepted a position with the Department of Agriculture for the State of New York, has been so successful that his salary has been materially increased. He has been induced to remain with the Department for a year at least. Dr. Publow is a son of the Chief Dairy Instructor, G. O. Publow, of Kingston. He writes that the sums of money that are spent in the State of New York for dairy and agricultural work, would surprise the farmers of Canada.

Cheese Makers desiring situations should advertise in our Want columns.



MR. G. G. PUBLOW

This snap shot of the Chief Instructor for Eastern Ontario was taken by Prof. R. A. Pearson of Cornell University, when he was visiting Kingston during school in January. Mr. Publow is standing in front of the dairy school.

means of revolutionizing the business over there, and had caused one large firm to lose nearly all its business, in favor of another firm, because the latter would, and the former would not, put in cold storage

Causes of Gassy Milk

The qualities which make milk a desirable food also render it undesirable from another standpoint. It is a splendid medium for the growth of bacteria, and, as a result of the manner of production, and the way it is handled it is subject to contamination with bad flavors. Milk contains about 50 per cent. milk-sugar. When milk is left without any cooling but the air, we have all the conditions favorable for the growth and development of lactic acid bacteria. Possibly the evening's milk has cooled down to the temperature of the night air by morning, but when the morning's milk is put in the same can, it reheats the whole mass, consequently it develops acid very quickly and by the time it reaches the factory it is over-ripe, and unfit for the production of first-class cheese. If taken in this condition it will cause a



DO YOU USE A CREAM HARVESTER? IF NOT WHY NOT?

It enables you to get every particle of butter fat from the milk. You can't get it by hand skimming. You will have fresh, warm, sweet skim-milk for calves and pigs—a most excellent feed. When you skim by hand, the milk is cold and stale. It saves work. You have no idea how much drudgery a cream harvester will save if you have never used one. You want your dairy products to be of the highest grade. Everywhere it is the cream harvester users who make the prize products. That's another good reason why you should use one.

The International Harvester Company of America offers you a choice of two of the best machines manufactured. The Bluebell, a gear drive machine, and the Dairymaid, a chain drive machine, are both simple, clean skimmers.

CANADIAN BRANCHES: Calgary, Hamilton, London, Montreal, Ottawa, Regina, St. John, Winnipeg
International Harvester Company of America, Chicago, U.S.A.
 (Incorporated)

The LOW BUTTER CUTTER Makes Accurate Prints

The adjusting wires can be set to a nicety in an instant by simply turning thumb screws, without loosening the wires. The vertical cutting frame, wires are not very rough on its inch apart, and can't get out of place.

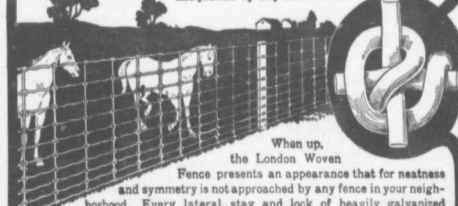
Besides being very accurate the Low Butter Cutter is extremely rapid, simple and easy to operate. Four turns of a crank, and the entire box is cut and ready to wrap. One man can cut stacks butter. We furnish the strongest looped wire, and the most improved wire folder and learn more about this ideal machine for Butter Dealers. Address

D. DERBYSHIRE & CO.
 BROCKVILLE, ONT.
 Exclusive Canadian Agents

London Fence

STRETCHES UP EASIEST, NEATEST, BEST

A wonderful improvement in woven fencing—that's the verdict of all who have examined the new London Woven Fence. With our improved Factory Looms we produce all even length strands—which means a far neater fence—one more easily erected—with a total strength unequalled by any other fence.



When up, the London Woven Fence presents an appearance that for neatness and symmetry is not approached by any fence in your neighborhood. Every lateral, stay and lock of heavily galvanized No. 9 steel wire, of the same temper, elasticity and strength that have earned for London Fence such a high reputation. Stays are remarkably stiff and straight—will not warp or curl. The lock is made of twisted wire, no weakening of wires by indenting or bruising. And you never saw a lock with a grip so marvelously tight. By long odds the biggest fence value on the market.

AGENTS WANTED in unrepresented districts.
LONDON FENCE MACHINE CO., Ltd., London, Ont.

The Two Boys' Telephone Company

WILL HARMAN was called "an active boy." That means that he was seldom put to bed for five minutes at a time, from early morning until bedtime. For that reason he might attract your attention just now by his last 10 minutes at least holding the just arrived weekly journal in one hand, while crowding the other hand deep into his capacious pants' pocket. It is not a nerve-thrilling story which has absorbed Will's attention so completely, but possibilities which arise from the reading of one of the display advertisements.

The announcement reads, TELEPHONES—For private lines. No rentals. We will sell you outright, a pair of telephones, with all accessories required and full instructions. Outfit, \$5.00. Send cash with order, etc.

To think, with Will, was to act, so in a very few minutes after his further cogitation, he suddenly threw down the paper, with determination, put on his hat with haste, and hurried off to join his moon-companion in all schemes and plans which were hatched by his fertile young mind.

"Tell you what," said Harry Hell, to his friend Will, the next day, as the pair sauntered home from school, "I've learned of a way I can raise two dollars."

"Good! How can you do it?"

"You know that mess of stones, as father calls them, down in our old grass meadow?"

"Down near the brook, where we used to play 'Poison' most every Saturday?"

"Yes, that's the place. Well, father agreed to give me the \$2.00 the minute I clear those rocks from the middle of the pasture, and pile them along the side of the wall. He's going to try for a big grass crop there this spring."

"Now, that's what I call jolly! I really didn't see how you would raise so much money right off. I'll have \$2.50 by next Monday, if not a little more. Your fifty cents, and the \$2.00 this job will bring you, puts a clean five dollars into the joint fund of the Two Boys' Telephone Company, doesn't it?"

"Yes," laughed the other gaily.

"And then—"

"And then we'll mail a money order to New York, and within four days there'll be a real telephone wire running from your bedroom window to mine!"

"Hurrah!" and two boys' caps flew from two boys' heads, with an undignified flourish, totally at variance with the rules which should govern the actions of well-behaved articles of clothing.

The Saturday following the incidents just related, was a day when, as Will declared, "was just made for hauling rock," so well adapted was it to the requirements in this special case. Nevertheless, Harry's father was greatly surprised, upon visiting the meadow at night to find the work he desired done, so completely accomplished, and felt a little anxious at the fear that the boys had done too much. However, when he learned by carefully inquiry, that nine good-sized boys had assisted by the power of their muscle—and conversation—he was relieved and gratified, and lost no time in making the promised payment.

"You'll eat supper with me, Will," his friend declared, "and then we'll sort of fix up and go to the village. A post office order's about the thing to get and send with the letter, isn't it?"

"Yes, or an express order. Guess the post office order is safer, though. The Dominion ought to be a bigger man than any express fellow!"

As the new telephone was a success, as expected. In two weeks from the night the order was mailed, lined with many hopes and fears, the line was in working order between the houses representing the ends of the "phone," and several times after on the other the "Two Boys' Telephone Co."

Often the boys remained away from each other, in order to talk over the "phone," and several times after on the other the hand led to his bed, the merry ting-ling-ling of the bell had brought him out with a bound to learn what was wanted by the distant "office." Such an urgent case as this usually meant a conversation much after this style:

"Hello!"

"Just going to bed, Will, and thought that I would call you up and say good-night."

"Glad you did, but I'd just got up under the bed clothes. I'm a trifle unprepared to meet company!"

"Oh, that doesn't matter. However, I won't keep you waiting—You'll be over to school in the morning, won't you?"

"Yes."

"Well, good night!"

"Good night!"

And both members of the new telephone company slept better for the exchange of greetings, without doubt.

"Come in and stay all night with me. You say your father and mother won't be home till late to-night."

"No, they won't ever to Aunt Mary's; but I have got to go home and slick things up, and do my chores; and I ought to be there when they get home to help put up the boxes. Father says I'll be tired. But I'll get right up to my room and call you up on the phone, to see how the new bells ring."

"All right," said Will, "and Mr. Harman, with a bright nod was off for his own house, which stood just a little piece beyond the home of Harry Hell."

Arrived at the back door, he was surprised to find it not locked. "That's odd, father doesn't often leave it like this," was the only thought he gave the matter, however, as he ran quickly up to his own room, whistling loudly, if not musically.

Had he not been absorbed by the thoughts of the telephone, and the experiment to be made with the newly connected bell he might have heard a light step behind him, or, at least, might have caught a passing glimpse of a shadowy figure which dogged his own passage.

As a matter of fact the first intimidation Will had of the presence of others in the house was a violent one, and he had hardly removed his coat on entering his room, before a burly, strange man had grabbed him, pinioned his arms, and said, "Get out, or I'll still, or 'twould be the worse for you," leaving the room at the same minute, and locking the door behind him, as he went.

Here was a predicament, indeed! Father and mother away from home, night fast coming on, and none to help him, locked as he was in his chamber. The truth flashed across his mind instantly that the man now engaged in robbing the house below was the same one recently reported to have stolen a horse from a very indignant, the same week.

Whatever else this unwelcome visitor could do, he could tie a rope about the arms of a boy so to render him completely helpless. So thought Will, as he tried in vain to withdraw his arms from their imprisonment.

He glanced from the window across the stretch of land toward, over the tops of elms and cherry trees, to the

red of the sunset clouds. He was in despair. What could he do to prevent his father's property being so moved bodily from his home? And at the thought of the money, which he knew to be hidden against an approaching late-crop, the boy struggled desperately.

But just at that moment he heard a sound that sets his blood leaping through his veins. "Ting-a-ling-ling!" In the surprise and consternation of the unusual noise, he had not totally forgotten his resources in being at the "live" end of the Two Boys' Telephone Company's line, but how he rushed to the instrument and responded.

"Harry!"

"Yes, here I am. Had to stop and do an errand. What do you—"

"Don't say another word! Listen to me. There's a robber in the house, who has tied my hands, and locked me up in this room. You must tell your father to get help, and hurry over here to prevent his escape! There may be more than one. Harry, for heaven's sake, but don't run risks. Slip into the hall, through the cellar kitchen door that you know about, and you can surprise whoever is down there. Don't stop a minute—run!"

"Good gracious!" was all Will heard in reply, but he felt sure now if the robber would be caught if he hurried but ten minutes earlier.

"Was the robber caught?" you ask. Yes, two of them, in fact, and they turned out to be the very rascals the authorities had been trying so vainly to capture.

And the "Two Boys' Telephone Company," is a concern now held in high regard by the families of Will Harman and Harry Hall.

A Chance to Win

In our February 12th issue we offered to give \$2 worth of merchandise to the woman who purchased the largest amount of goods from the advertiser who advertised in that issue of the paper, setting the time limit on two o'clock at March 15. We have decided to extend this date, and make it March 30.

Any woman purchasing articles of \$10 or over in value, from advertisers in any issue of the paper up to and including the March 25th issue, will be entitled to this prize. The receipts stating amount of purchases, who purchased from, etc., will be received at our office up to, and including, March 31, when the contest will close. The only stipulation to the contest is, that it must be stated that the advertisement was seen in The Canadian Dairyman and Farming World. Address replies to Household Editor, Canadian Dairyman and Farming World, Peterboro, Ont.

Prizes for Our Boys

How many of our boys have chickens of their own, or would like to have some? Why not try and earn a few, take care of them, keep them for your very own, and make a little money this summer, that you can call your own money. You might even have a pure bred pig, for if you would work a few spare hours for us. To every boy who sends us seven new yearly subscriptions to this paper, at \$1 each, we will send a pure bred pig, either a Yorkshire, Berkshire or Tamworth, whichever breed you desire.

To the boy who sends us only four new yearly subscriptions to this paper, at \$1 each, we will give a setting of eggs, either White Wyandottes, Plymouth Rocks, or Buff Orpingtons. Who will be the first boy to win a pig, or a setting of eggs. Address your letters to Household Editor, Canadian Dairyman and Farming World, Peterboro.

The Literary Club

Edited by D. G. French, Temple Building, Toronto, Canada, to whom all communications respecting this department should be addressed.

Chit Chat

As the Literary Club is to disband after April, no new contests are being offered. We have several to close up. Among these is the essay on "The Poem I Like Best." This contest brought many replies. The choice of poems was varied, among them being: Evangeline, Enoch Arden, At the Mission Door, The Revenge, The Deserted Village, The Lord of Burleigh, To Dafodils, and The Hanging of the Crane.

The prize winners were: "Daisy," Queensboro, Ont.; "Snowflakes," East Hill, Ont.; and "Benjamin," Britannia Bay, Ont. Below is given the prize winning essay:

The Poem I Like the Best

By "Daisy," Queensboro, Ont.
THE HANGING OF THE CRANE.
Langfellow.

This poem was written to show the American people a beautiful picture of happy home life, at a time when war had broken many homes and wandering sons were not inclined to a settled life.

The poem opens on the night of the forming of a new home, just after the ceremony of "The Hanging of the Crane," the iron hook of which swung over the fireplace for cooking purposes. The merry guests have departed, all but one silent friend, to whom, in his quiet corner, is granted a vision of the future. The first picture he sees is of a table set for two, "each other's own best company." The second one shows the table, and the two again with "a royal guest, who'll feast his heart on his high chair, his throne. The scene again changes and there are two guests, a sister for the little king, whose throne is given up to her. After a time many happy faces surround the table. The last picture but one, is a little troubled. It shows the two again alone, the mother anxiously reading of wrecks and battle fields, in dread of finding in the fatal lists "the one beloved name." The sun shines brightly over the final scene when many guests and troops of children fill the house, and the early bride groom and the bride, behold the scene with happiness and contentment.

My reasons for liking this poem are: it upholds strongly and beautifully the home, the highest national institution; 2, the series of pictures are drawn as vividly as if on canvas; 3, for its beautiful and appropriate figures of speech, many of them pictures in themselves.

Subjects of Debate

At the Ottawa Collegiate Institute debates were recently held on the subjects: "Resolved, that capital punishment should be abolished;" and "Resolved, that fear of punishment has more effect on a human nature than hope of reward."—(Benjamin.)

Charity Box

Every housekeeper should have a box in closet or garret to use for this purpose. As soon as you put to one side any article, have it cleaned and mended, and when a call is given, you know just what you have to give, and are ready to use it. It is useless to give away old clothes that are not mended. If you can't find time to repair them perhaps you have a friend who would be glad to help you by doing it.

THE COOK'S CORNER

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

EGGLESS CAKE

Cream $\frac{1}{2}$ cupful of butter with $\frac{1}{4}$ cupfuls of sugar, add a cupful of sour milk, a level teaspoonful of soda, $\frac{3}{4}$ level cupfuls of flour, $\frac{1}{2}$ teaspoonful each of cinnamon and mace and a cupful of raisins, seeded, chopped and floured. This cake is excellent to have during the season when eggs are scarce, and, if carefully made, is very good.

A RICE SUPPER DISH

Two cups water, 1 cup rice. Put the water in a granite saucepan with a little salt and a cup of canned tomato juice. When the water boils put in the rice and boil gently until the water is all used up. Stir frequently to keep from burning if you have no double boiler. Then cover and keep in a warm but not hot place until the meal is ready.

GODFISH CAKES

Cut and pick the codfish into small

pieces free from bones and skin, and soak in lukewarm water about one hour. Put in cold water and boil. When it has boiled once change the water and let boil again. While this is cooking, boil some potatoes and when cooked strain and mash very fine. Strain the codfish, and mix it with the hot potatoes. Then shape into small cakes about an inch thick and fry.

AMERICAN BREAD

Scald 1 pt of milk; add 1 pt of water, and milk mixture is lukewarm; add yeast (dissolved in warm water); a teaspoonful salt, and sufficient whole wheat flour to make a batter. Beat thoroughly for 5 minutes; over, and stand in a warm place for 2 1/2 hours. Then add flour slowly, stirring all the while, until the dough is sufficiently stiff to turn on the baking board. Knead well, divide into loaves, put into greased tins, and stand in warm place till well risen. Brush tops with warm water or milk, and bake in moderate oven.

TEA CAKES

Put 1/2 lb of flour (which should be quite dry) into a basin; mix with it $\frac{1}{2}$ teaspoonful of salt and $\frac{1}{4}$ lb of butter; then beat 1 egg well; stir with it a piece of yeast about the size of a walnut, and add this the flour with sufficient warm milk to make the whole into a smooth paste, and then knead it well. Let it rise and then knead it well risen, form it into cakes. Place these in tins, let them rise again for a few minutes before putting them in the oven, and then bake from a quarter to an hour in a moderate oven. If liked, a few currants and a little sugar may be added to the other ingredients; they should be put in after the butter is rubbed in.

LEMON AND MARMALADE PIES

Lemon pie with two crusts; 1 lemon with yellow rind grated off; then take a knife and pare off the white part and chop the inside; 1 cup of sugar, 1 cup of cold water, 2 eggs, salt, little butter. This makes 2 medium sized pies.

MARMALADE PIE

Make puff paste, roll out and bake to a delicious brown on a jelly cake tins. When cold spread both layers with strawberry or raspberry marmalade. Put one on top of the other. With the white of an egg and half a teaspoonful of powdered sugar, beat up a meringue and spread over the marmalade on the top layer. Set in the oven until meringue is slightly browned. Serve cold.

MOCK MINCE MEAT

Some years ago Good Housekeeping published a mince meat recipe which winter after winter has been used in our house. It contains no meat or meat liquor and is put up without cooking. It has two signal advantages, it is so easy to prepare. Then, it retains the fine fruity flavor of all its ingredients.

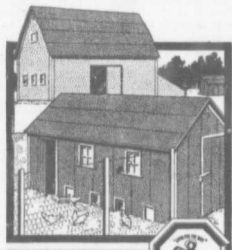
The recipe is referred to reads: "Take 2lbs of finely chopped suet, 4lbs of grated bread crumbs, 4lbs of currants, 4lbs of raisins, 4lbs of brown sugar, 1/2 lbs of peel, lemon, orange and citron, 6lbs of apple, weighed after being chopped, 2 table-spoons of cinnamon, 2 table-spoons of cloves, 1 table-spoon of mace, 1 table-spoon of salt and 2 qts of boiled cider." The ingredients are blended without being boiled; put away in jars set in a cool place, this mince will keep all winter.



The EDISON PHONOGRAPH

MR. EDISON has perfected his Phonograph until it is a marvelous reproducer of music and other sounds. The list of Records issued each month comprises all that is good, lively, entertaining and amusing in music and spoken speech. The cost of a new Record is a small thing, yet with it you open the door to amusement if you have an Edison Phonograph.

If you have not heard the new model with the big horn, go the nearest Edison dealer and hear it, or if you cannot do that, write for a descriptive booklet. This DESIRE GOOD, LIVE DEALERS to sell Edison Phonographs in every town where we are not well represented. Dealers should write at once to National Phonograph Co., 100 Lakeside Ave., Orange, N. J., U. S. A.



Dry, Tight Poultry Houses

Dampness and draughts are deadly to chickens. A dry atmosphere and an even temperature are absolutely essential to health and productiveness in poultry. Poultry houses roofed and sided with

REX FLINTKOTE ROOFING

have protection not only against wind and rain, but also against extremes of temperature, dampness and humidity. REX Roofing is a non-conductor of heat and cold as well as being steam-proof and wind-tight.

REX Roofing has great durability because it is made of dense, long-fibre wool felt, thoroughly impregnated with weather-resisting compounds. Any farm hand can put it on.

"Look for the Rex" on every roll and don't buy unless you have them.

OUR FREE SAMPLES AND BOOKLET will acquaint you on every point of roofing excellence. Send for the asking. Send for our price booklets, "Making Poultry Pys," which will help to make your flocks profitable.

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Anyone can use them; it's an art.
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Asked and Answered

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

Please tell me, through your columns, in what Canadian cities I will find a Woman's Exchange?—E. H., Athens, Ont.

You will find a Woman's Exchange in Toronto on Toronto street; one in Montreal, Vancouver and Victoria. There may be smaller exchanges in other smaller cities. Write to the City Clerk in the smaller places, for this information. Address your letter, City Clerk, giving the name of the town or city.

What will take iron rust off fine white linen? Advise something that will not injure the fabric, if possible.—Jessie Butler, Ontario Co., Ont.

Cream of tartar will usually remove iron rust from white linen, most successfully, without injury. Mix it with water to a paste, wet the spots then spread on the paste. Hang the article in the sun, and as fast as it dries, wet again. After a few wettings, if the spot has not disappeared, dust off the dry powder and repeat.

What will keep away the little red ants which occasionally come in the pantry?—Aenes Fleming, Manitoba.

Place a small quantity of green sage on the shelves, and the ants will not trouble you.

Please help me by sending a remedy for coffee, tea and fruit stains on table linen.—J. G. W., Welland Co., Ont.

Tea, fruit, or coffee stains can be easily removed from linen or cotton, if butter or lard is thoroughly rubbed through the stain, before the cloth is put into boiling water.



A Little Every Now and Then Pays for a New Scale Williams Piano

WE want to place a New Scale Williams Piano in practically every home in Canada. We want those of moderate means to enjoy the delights of owning one of these superb instruments. Our Easy Purchase Plan points the way.

Simply by making a payment every month—you may have a New Scale Williams Piano delivered at your home after the first payment. And you have the use of the instrument all the time you are paying for it.

The richness and elegance of the New Scale Williams Piano impress you at once. When you hear the beautiful tone, you agree with musicians that the "New Scale Williams" is a masterpiece.

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5200 COOK BOOK FOR 25 CENTS.—The Canadian Home Book is a reprint of a valuable \$2.00 book, contains 750 recipes for cooking pastry, meat, vegetables, etc. Only 25 cents. Postpaid. Useful Novelties Co., Dept. F., Toronto, Canada.

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Three Striking Features of the



"New Century" Washing Machine

Roll Springs insure easy running. Strong Springs reverse the motion, and resist all wear.

Wringer Stand is strong and rigid—and so attached that it is always in the right position.

Price \$25—delivered at any railway station in Ontario or Quebec. Write for free booklet.

Dorland Manufacturing Co. Limited, Hamilton, Ont.

Baking Hints

If you do not want your cake to stick to the pan after it is baked, butter the dish or pan, then throw in a handful of sifted flour. Shake the pan till the flour sticks to the butter, then turn the pan bottom side up and beat it so as to remove all flour that does not adhere. Do not allow the cake to remain in the pan more than two minutes, after it is done.

The whites of eggs, beaten to a stiff froth, with 3 teaspoonfuls of sugar to each egg, and a teaspoonful of breakfast cocoa, mixed with both, makes a good filling for layer cakes, when you do not have plenty of sweet cream; but do not try to make frosting from an egg that has been chilled, as it will not beat up nicely.

The "Favorite" is the Churn for a Woman

No more tiring or more aching backs.



The "Favorite" can be operated by hand or foot, or both—while you are sitting in a chair. Easier than a sewing machine. Steel roller bearings and other improvements make it the ideal churn for farm and dairy. 8 sizes, to churn from 1/2 to 30 gallons of cream.

"Puritan" Reacting Washing Machine

Improved Roller Gear—covered—are only two of its many improvements. Beautifully finished in Oak, Royal Blue or White Color, and Silver Aluminum. Write for booklet about these unusual features, if your dealer does not handle them.

DAVID MAXWELL & SONS
151 May's Cus.

The Washing Machine Wins

Convenience of arrangement in the matter of wash tubs, boiler, and ironing boards, is the first requisite in making the ever dreaded "blue Monday" a day less to be dreaded by the whole family, and renders the extra labor on that day as slight as possible. The housewife, who has no special wash room, with stationary tubs, stove, mounted boiler, and many other of the up-to-date conveniences, can secure almost the same results by selecting three or four cedar tubs, of sizes that will snugly one into the other, when not in use. A bench with legs that will fold under, and which can be set away during the week, is one of the best supports for the tubs on wash day. After using tubs, always rinse them well, nest them together, the inner tub partly filled with clear water, which is sufficient for all.

Dirt should be boiled from the clothes when possible, thus saving unnecessary rubbing. A simple and harmless washing fluid can be made by using one can of pure lye, two ounces of liquid ammonia, two ounces of salt, and water to fill in five quarts of water, both cork tightly, and use one-half cup in boiler, at washing time. To assist this fluid in its work, a quaker, or a half, ear soap, should find its way into the boiler, an excellent thing. These two form a combination which will assist in rapidly removing all dirt from the clothes, providing the latter are given a good hour's boiling. This leaves very little rubbing to do.

WASHING WITH MACHINES.

A large number of our readers are using the washing machines that are advertised in most of the agricultural papers, and we have received a large number of letters from users of these machines, all of which speak in the highest and best terms of the machine they are using. Why should not the housewife have this labor saving machine, if it makes her work less wash day less hard, and saves time as well as strength? The arguments in all the up-to-date labor savers for use in his work, that he can afford, and sometimes those he can not well afford. The housewife who has land on the farm to demand these helps in her work. Here is what one busy woman writes about her washing machine:

"I find that with my washing machine it takes much less time to do the washing, in fact, it is completed in about half the time it took me to do it with the board and tub. It is much easier done. If I did not have the machine, I would not be able to wash at all, as my physical condition would not permit of the violent exercise caused by rubbing the clothes on a board. I also find that my clothes last much longer, when washed with the machine. The machine I have is well and substantially built, and will last me a lifetime, if properly cared for. I have used it every week for four years, and has not cost one cent for repairs during that time. We would not take any more money you could offer us for our machine, if you could not replace it."—Mrs. Robert Mallory, Leeds Co., Ont.

HER CHILD CAN RUN IT.

Another enthusiast of the washing machine, writes the following note to us: "We have found in the four years we have had the washing machine that it is just what the firm represented it to be to us. My youngest child can run it, and she is but nine years old. It neither wears nor tears the finest clothes. I have given it a good trial, as I have done a great deal of washing for ladies in the summer. The machine is well and has not needed the slightest repairs since we have owned it, and it has received pretty hard usage. I paid \$15 for the machine, and if I could not get another I would not take \$32

for it."—Mrs. James Ferrier, Halton Co., Ont.

ALL THE NEIGHBORS HAVE ONE.

From Hastings Co., Mrs. Anne McKennie, writes us that for some time past she has had a washing machine which has given her the best of satisfaction. Mrs. McKennie says: "I find I can do my washing in a much shorter time than formerly, and the machine does not injure the clothing in any way. A number of people in my neighborhood have the washing machine, and all appear to be thoroughly satisfied with it." We have dozens of other letters from women who have all found the washing machine a great help and a benefit to them in their work, and we should be glad to hear from any others regarding their experience with the machines.

Disposal of Ashes and Refuse

The taking care of the little things about the house, has been responsible for the reducing of housekeeping to a fine art. The more and more promptly the refuse of all kinds is disposed of, the better for the healthfulness and comfort of the home.


Keep the ashes free from organic waste and they can be used to advantage on the garden walks, or to fill up the low places. They should never be stored in wooden boxes, when taken from the stoves, nor in barrels, or in ash pit. Purchase for a small sum, a galvanized can, not too large. This can be easily emptied, and should be fitted with a tight lid. Many serious fires are caused from the careless manner of using a wooden receptacle for ashes. Kitchen refuse from the preparation of food, can be, and should be, saved for the pigs and the chickens. It should be also collected in a galvanized iron pail, and the pig and chicken pails, no matter of what material they are made, should be kept covered with air tight covers, especially in summer. The pails used for washed and scalded eggs, when they are emptied, and once a week, especially in summer, they should be rinsed with some good antiseptic, a teaspoonful to a pint of water.

Old refuse that the junk dealer will buy (old iron, tin, leather, rubber, etc.) should be cleaned and stored in large sacks, special for that purpose, and placed in some dry out-house to await his next trip through the country. Do not leave any damp or decaying rubbish in dark or out of the way places. Make it a practice not to allow old papers or other refuse to accumulate in the yards, or sheds. Nothing begets dirt and refuse, like dirt and refuse itself. Have a thorough cleaning out of all such places this spring, and keep them in a better condition hereafter. You will be well repaid, every time you come near the dark corners.

The Rainy Day Box

I have a big box in the sewing room in which I put all odds and ends of ribbon, silk, pretty gingham, lace and so on. Two of my friends contribute scraps from their dressmaking and several young girls donate the toys they receive at parties and entertainments. I do not show these new acquisitions to the children as they arrive, but wait and surprise them some rainy day.

Then they ask to two or three other little girls in the neighborhood and they all play "shop" most happily for a couple of hours. It is an amusement which is reserved exclusively for stormy days when they cannot play outdoors. Sometimes the delight is increased by allowing the children to dress up in long skirts and their mothers' hats, and to borrow parasols and grown-up shopping bags. Mrs. James Bruce, Ontario Co., Ont.



BOVRIL

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

Fads for Our Boys

A fad is a boy's great safeguard. It is almost a necessity for the boy's well-being. So when they Jack catch fish in the brook and want them fried for supper, don't turn him away. Fishing is his fad for the time. Do you remember the joy of the mud pies of your pinafore days?

That wretched yellow cur, without whom Tommie is but half a boy! Tolerate the brute, I beg of you. Pets are the most important and most numerous inhabitants of Fadville. Do you remember that stolid, expressionless doll which you confided in so long ago? Why, that doll was discretion itself, for it never told the secrets whispered into its waxen ears. And after the lights were out and you couldn't go to sleep, dollie was such good company that you never feared the dark. If a bit of saw-dust, and a rag, and china could be all that to you, what can a wriggling, loving Fido be to Tommie? Fido never tells secrets, but he understands them. Fido's eyes shine with joy, or grow dim with sorrow, as Tommie dictates. Fido can talk. You may not under-

We Want the Names



OF FARMERS WHO INTEND BUILDING OR REPAIRING THIS YEAR

To everyone sending us three or more names and addresses of people who will build in 1908, we will give

A Useful Present

Our only condition is that the parties named should be actually intending to construct new buildings or repair old ones.

- Our leading lines are—
- "Safe Lock" Steel Sillings
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- Sheet Steel Sidings
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That's what people say about bread made from

PURITY FLOUR

It is reliable.
It is appetizing.
It contains more nourishment than most flours.

Your Grocer Sells It.

713

WESTERN CANADA FLOUR MILLS CO., LIMITED
MILLS AT WINNIPEG, GODEFRICH AND BRANDON

Little Helps

Left over scraps of laundry soap can be boiled into a jelly, or soft soap, for washing dishes, or shaved into the wash boiler on wash day. Try scalding milk for custard pies. It adds greatly to the flavor of the pie. An addition of a teaspoonful of brown sugar or molasses, is also helpful.

A rubber hose long enough to reach from the water supply to the stove will save lifting the heavy pails of water on wash day. In this way, the tubs and boiler can be filled and emptied without a strain on anyone's back. The coat of the hose is small, compared with the benefits derived from its use.

Another kitchen comfort is a big rocking chair, with a cushion in it. It saves many a backache, for a tired woman will drop into a rocker right behind her, just for a moment, when she is watching something cooking on the stove, but she would not think of going into the next room to rest for a short time. If she will sit down in a comfortable chair a number of times during the day, her rest will amount to a pretty good sum during the day. See how it works out for a while.—*Jean Miller, York Co., Ont.*

If your mattress is a new one, or is a clean one, make two white slips, just the right size, with a two inch lap at one end. On this lap work several buttonholes, and on the slip sew the buttons. Then cover the mattress. With these slips, the ticking on the mattress will be clean as long as the mattress is in use. Having two of these cases, enables you to have one laundered whenever necessary.—*Mrs. Jack Mason, Leeds Co., Ont.*

To keep pillow ticks clean, cover the pillows with covers made from old sheets, just large enough to fit the pillows snugly. These will not require washing more than four or five times a year. Where the pillows have become soiled, they can be cleaned, by pushing all the feathers to one end of the tick, and using a brush, rinse off the tick, and hang in the sun to dry.—*Nettle Woods, Nova Scotia.*

For a chest cold, or croup, take a flannel and cover with castor oil, then sprinkle with plenty of grated nutmeg and apply to the chest. Make a new application night and morning. My little one hasn't had the croup since I began using it.—*Mrs. J. G. Frost, Halton Co., Ont.*

If you should ask prize Butter-Makers what salt they use—they would say, "Windsor." For Windsor is the choice of Canadian dairymen everywhere. Ask your grocer.

Windsor Dairy Salt

In the Sewing Room

When sending for patterns kindly do not omit to mention the size desired. Several requests for patterns received lately did not give sizes wanted and the editor has sent a medium size in all such cases. When ordering patterns, simply state number of pattern and size desired. It is not necessary to send an illustration of the pattern with order. Allow a week or ten days, before pattern may be expected.



5894 Misses' Seven Gored Box Plait Skirt

The skirt is cut in seven gores and is laid in box plaits, which conceal all the seams. The closing is made invisibly at the back. The quantity of material required for the sixteen year size is 7 1/2 yards 27, 5 1/2 yards 44 or 52 inches wide.

The pattern 5894 is cut in sizes for girls of 14 and 16 years of age, and will be mailed to any address on receipt of price, 10 cents.

5883 Shirt Waist or Blouse. 30 to 40 bust.

This blouse can be made of washable material and left unlined or it can be made of silk or of wool and used with or without the little chemisette.

The quantity of material required for the medium size is 4 1/2 yards 34, 3 1/2 yards 32 or 3 1/2 yards 44 inches wide with 1/2 yard of tucking for the chemisette.

The pattern 5883 is cut in sizes for a 32, 34, 36, 38 and 40 inch bust measure and will be mailed to any address on receipt of 10 cents.

stand his conversation, but Tommie does.

If dogs are the boy's fad, then make a place in your home and your heart for a dog. If it is white mice, stifle your natural dislike, and remember that the mice fad, as a rule, does not last long.

Jimmie is a little older, and his taste runs to catching bugs. A dead bug is perfectly safe and immensely interesting,—for Jimmie. If he wants to see what a pollywog does, let him have a fruit can and a window sill for pollywogs. Trash! Not a bit of it. Not nearly as trashy as the evil Jimmie could learn if he had time to spare from bugs to go after the evil.

Johnnie likes to whittle. Don't scold about the shavings, but be thankful, and encourage him. Making things, with all the attendant litter is a better pastime than playing in low company. Fred may want a brass horn, or he may write poetry. Put wax in your ears and a tight cover on your sense of humor, for either pastime is innocent.

Oh, the blessing of these fads for an active, alert boy! Mothers, encourage them. Better yet, get the fad germ yourself and tend it carefully so that you can dwell with

your sons in that beautiful, dreamy land of Fadville.

—Taken from *The Housekeeper.*

Try These

How often a page, which has a slight tear in it is left unattended until the tear gradually grows larger and then finally part of the page is gone altogether. The best way to mend a torn page is to paste over it a piece of thin wadded paper. The printing can be easily seen through this and the page is almost as strong as when new.

A string is always handy. Wind all your string in a ball, and you will be surprised to find how quickly the ball will grow. Keep it in a special place, and know where that place is. Then there will be no hunting in a hurried moment for a piece of string to tie up a parcel.

To clean brushes, they should be washed at once after being used. This is easily done by taking a little soap and rubbing the brush gently with well soaped fingers. When the color is all out, rinse well in cold water, and squeeze out with a cloth, keeping the hairs well together, so as not to spoil the shape of the brush. Dry in a moderately warm place.—*M.E.*

Baby's Own Soap
Best for Baby
Best for You



Take Care of Your Skin

- ¶ All Women, without giving too much attention to their personal appearance, value a nice skin.
- ¶ Baby's Own Soap is unequalled for its beneficial effects on the skin.
- ¶ It renders the use of expensive skin creams and toilet waters unnecessary.
- ¶ Do not give up its use for that of any other soap.

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COUNTRY NOTES AND PRICES

I think there will be only about two-thirds as many hogs for the market in 1908 as in 1907 in this district. Nearly all the farmers around here have enough feed to carry their stock through the winter, if they do not have to feed all summer.—H. C. Morrow, Northumberland Co., Ont.

LOSS IN EVERY POUND OR PORK NOW MADE

The supply of hogs is getting shorter and the outlook for next spring is very bleak.

as to the cause of these heavy marketings of hogs, one is that financial trouble in the respective countries has caused farmers to liquidate their stock. Another is that dear feeding sties have made the raising of hogs unprofitable and farmers are clearing stocks as rapidly as they can, thereby surfeiting the market. It is latter theory is correct, there will be a return to higher prices during the next few months Canadian bacon has been somewhat in the background while the plethora of Danish has been flooding the market, and sales must have disappointed the Canadian curers. At the time of writing the market is tending up and the prospects are brighter, for the selling price is coming somewhat nearer the cost of production.

regular slump in common to medium grades. On a slow market inferior stock is first hit and is never in demand at any time. Heavy-breed stock and its only the best. Prices were from 15c to 25c lower than the cost of the stock and 50c to 50c a cwt. lower than two weeks ago.

For exporters \$5.50 per cwt. was the top price, and only a few choice ones reached that figure. Export bulls sold at \$2.75 to \$3.25 a cwt. Some exporters were bought for further feeding.

Butchers' cattle, which were in large supply, are drab, especially the inferior stock. Quotations are: good butchers and cowboys, \$4.25 to \$4.50; fair to medium butchers, \$4 to \$4.25; light butchers and cowboys, \$3.50 to \$3.75; common to medium cows, \$3 to \$3.40 and light inferior cows, \$2 to \$2.45 a cwt.

Trade in stockers and feeders is sympathetic with other lines ruled slow. The best feeders, 1,000 to 1,500 lbs. in weight are quoted at \$4 to \$4.50; best feeders, 900 to 1,000 lbs. each, at \$3.60 to \$4; best stockers, thin, 700 to 800 lbs. each, at \$3; and light stockers, thin, 500 to 700 lbs. each at \$2.75 to \$3 a cwt.

MILCH COWS

The bulk of milch cows and springers are of medium quality with a surprising few good to choice ones mixed in. They sell at \$30 to \$55 each, the bulk going a loss than \$40 each.

Good calves are scarce and are wanted. They bring from \$6 to \$7 a cwt. for the best. The bulk of those offering bring \$3 to \$4 a cwt. It takes a choice one to reach \$7 a cwt.

SHEEP AND LAMBS

Both sheep and lambs were easier to write the end of the week. Earlier, the best quality of lambs sold as high as \$7.50 a cwt., but later dropped a bit, the bulk selling at \$5 to \$6 a cwt. This meant \$4.90 f.o.b. at country points. The market showed a firmer tone, price very soon packers will hardly find sufficient supply to keep their establishments running, as farmers will not raise their present figures. The American market is higher. At East Buffalo heavy mixed and porkers sell at \$5 to \$5.15 and roughs at \$4.25 to \$4.50 a cwt.

HOG PRICES

The hog market seems to have reached rock bottom and taken a turn upward. Selects sold on Toronto market last week at \$7.25 and the bulk at \$5 to \$6 a cwt. This meant \$4.90 f.o.b. at country points. The market showed a firmer tone, price very soon packers will hardly find sufficient supply to keep their establishments running, as farmers will not raise their present figures. The American market is higher. At East Buffalo heavy mixed and porkers sell at \$5 to \$5.15 and roughs at \$4.25 to \$4.50 a cwt.

W. M. DAVIES' QUOTATIONS.

The Wm. Davies Co., Toronto, quote prices for the week beginning March 18 as follows: \$5.10 a cwt. f.o.b. at country points; \$5.40 a cwt. weighed off cars at factory same day as arrival and \$5.50 following morning.

They report receipts as light, though a little better than a week ago. The English bacon market is in bad shape though a slight improvement is noticeable. The recent advance on this side is largely due to more competition among packers to get hogs.

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BUT THERE IS ONLY ONE MAGIC BAKING POWDER

It is Pure, Wholesome and Economical SOLD IN ALL SIZES. E. W. GILLET COMPANY LIMITED TORONTO, ONT.

BREDALBANE IMP (4558)

A prize winning Clyde at the Toronto Horse Show last month. Owned and exhibited by THOS. M'ERKEIL, Markdale, Ont.

At the present price of pork and the price of feed there is a loss in every pound of pork marketed.—Richard Gibson, Delaware, Ont.

HOGS ARE NONE TOO PLENTIFUL

Hogs are none too plentiful in this district. Prospects for spring business are not very bright because of the high price of feed. Nearly everyone seems to think there is no money in hogs. There is plenty of feed to bring stock through the winter in fair shape.—D. DeCoursey, Burnholm, Ont.

PRINCE EDWARD COUNTY

Rose Hill—Timothy hay, \$20 a ton; clover, \$18; mixed, \$20; baled straw, \$10; loose, \$10; bran, \$22; shorts, \$24; barley, 6c a bu.; corn, 75c; peas, 80c; fresh eggs, 20c a doz.; creamery butter, 20c a lb.; rolls 25c; tins 25c; pork, 25c; prints, 25c; colored cheese, 15c; white, 15c; potatoes, 60c a bu.; 90c a bag; milk cows, \$20 each; springers, \$25; calves, \$7; beef, 4 to 5c a lb.; w.; stockers, 3c; butchers, 4c; export, 4c; hogs, 5c; lambs 5c; wethers, 4c; ewes, 4c; hens, 60c a pr.; chickens, 75c; hogs, 75c a lb. d. w.; lamb, 10c; mutton, 8c; beef, 8c; veal, 15c; chickens, 15c; hens, 5c; calf skins, 5c; hides, 3c-6c. M. Mc.

WHY HOGS ARE LOW

Mr. P. B. MacNamara, Canadian General Agent at Manchester, gives the following on the bacon market in the weekly report of March 9:

The condition of the bacon market causes both merchants and retailers considerable anxiety. In the beginning of the year the killings of hogs in all countries were enormous, and more bacon was consigned to the English market than it could readily assimilate. Prices have been reduced to such a point that curers are involved in heavy losses, with the single exception of the American shipper, whose hogs have reached a phenomenally low price. The weekly killings in Denmark have ruled 6,000 to 8,000 hogs, in south of Ireland 10,000 to 12,000, while the aggregate killings in Chicago for January attained the enormous figures of 1,117,000, at an average cost of about 47 cents a lb. Various theories are given

LIVE STOCK PRICES

The run of cattle at both the Junction and City cattle markets last week was fairly large. Trade was not as brisk as a week ago. Many drovers claimed to have lost money on their shipments, especially at the end of the week when cattle prices took a drop. The best cattle dropped a little but there was a

2 Tons in 10 minutes

No two men could ever keep up with our Champion Hay Loader. Just think of the time saved in a day when it throws a ton: Drive to the field, attach the loader, and in ten minutes have a great load on, ready to put away in the barn. How soon would it take to pay for that loader with the hired man's time it would save?

The Champion
Will work easily in light or heavy hay. Wood parts exposed to wear are made of indestructible iron, and so nicely bent at the ends that they do not catch, and rollers are gear and stronger than on any loader we know of. A strong spring under either end of the roller relieves the strain and twist caused by stones or other obstructions. Skids cannot rip out because carrier ropes pass around each and are capped. The Champion Hay Loader has a cylinder of felt with a groove could go on for half a year and will the good thing "Farmer's Ready Reckoner" and catalog "G. I." Both free. Write for one and send them at your leisure. We have an agent in your vicinity who will gladly answer any question you wish to ask.

THE FROST & WOOD CO., Limited,
Smith's Falls, Canada.

EASY TO ATTACH AND DETACH AND STAY ON LOAD

CHAMPION HAY LOADER

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MARKET REVIEW AND FORECAST

Toronto, March 16.—There is more activity among stock holders which may be taken as an indication that the money market is easing up a little. The rate rises about the same, however, and very little change is reported. The effect of the tight money market is shown in the increased number of business failures as compared with a year ago. It does seem as if banks were carrying their policy of retrenchment too far and hampering sound legitimate business there by. Banks are public utilities and should not be allowed to hamper the legitimate trade of the country.

WHEAT

The wheat market has lost strength during the week and prices are lower. Liverpool cables are lower and prices at Chicago have dropped, though some cash buying helped the market on Friday which ran up to 56c. The large arrivals of Argentine wheat are depressing the English market and the prospects at the moment for higher values are not very bright. The United States government report shows that the wheat in farmers' hands is much more than figures on, and this has depressed the market somewhat. Ontario wheat is at the lowest price of the year and hard to sell, so dealers say. Stocks in the province are light, but prices are too high for export. Millers are reported to be "raining only light flint, and no wind," they all want American flour to be brought into this country and undersell them. They ought to be able to produce flour as cheaply as in the United States. Ontario wheat is quoted here at 52c to 52½c outside, and goes at 50c to 51c. Manitoba wheat is firm. On the farmers' market here fall wheat brings 56c and goes 56c per bu.

COARSE GRAINS

The oat market is steady though there are signs of weakness. Montreal trade quotations range from 56c to 57c for Eastern Canada, and 49c to 49½c for Manitoba rejected. Oats are quoted here 48c to 51c on track Toronto and 48c outside. On the farmers' market oats are being 55c per bushel. Barley brings from 56c to 57c according to quality.

FEEDS

The corn market is firm. The amount in farmers' hands in the United States is much less than usual at this season. It is grading low and prices are higher than for sometime past. Corn is quoted here at 71c in lots on track and hard to get at that. There is a scarcity of bran and the price of millers are making \$15 a ton is the highest on record. Full cars are quoted here at \$22 to \$23, bags included, outside, and shorts at \$22 to \$24. At Montreal the market is firm though quotations are not so high as here. There are: Manitoba bran \$23, shorts \$24, Ontario bran \$23, shorts \$23.50 to \$24, and Middlings \$25 to \$27 a ton. Receipts of Manitoba feed wheat have fallen off and prices are higher. At Toronto Montreal it is quoted at 67c to 68c on track. The price here is about one cent per bushel less.

HAY AND STRAW

The hay market shows little change. Though the embargo on hay put on by the British Government does not apply to Canada, very little is being exported. Prices are the same here at \$16 to \$17 a ton baled. The market at Toronto and \$9 to \$10 a ton for baled straw. On Toronto farmers' market loose Timothy brings \$20 to \$22 a ton, loose str. \$19 to \$21, and in bundles \$15.50 to \$16.50 a ton.

SEEDS

Quotations here for seeds at outside points are as follows: Alsike \$7.50 to \$8 and red clover \$10.25 to \$12 a bu., with the very best higher. The red clover market is firm. These are buying prices.

EGGS AND POULTRY

The egg market is gradually getting down to the spring level, and prices are several cents lower. American stock continues to arrive in Montreal and fresh eggs from that quarter are quoted at 25c to 30c, and Canadian firm at 25c to 30c in the trade. Stocks of dried and storage eggs are now about done for; offering of new laid are quite free here and often in excess of the demand; new laid are quoted in a jobbing way at 25c to 26c a doz. On the farmers' market they bring 25c to 26c a doz. Extra choice young turkeys are quoted here at 15c to 16c, young geese and ducks at 9c to 11c and choice chickens 12c to 15c a lb. to the trade.

FRUIT

At Liverpool Canadian apples are firm with a good demand for the best grades. Poor quality is not wanted. Many lower grades apples, unfit for export, have been sold in Montreal at auction at very low prices, one car last week sold for \$2.25 a ton, for which \$3.25 was refused last fall.

DAIRY PRODUCTS

The cheese market rules mild though holders are not asking less, owing to the light supply. Prices are firm. At Mont-

real Sept. Westerners are selling at 15½c for whites and 15c for reds, and Blanes at 15c for whites and 15c for reds. At London finest Canadian white is quoted at 43c to 44c, and colored at 55c to 66c with stock light.

The butter market is firm and cables are higher the old country market having recovered from the big decline of a week or so ago. Stocks are well cleared and the market is firm at the advance. There has been an advance of three shillings. At Montreal supplies are limited and prices are firm at 22 to 23c for winter grade and 26c to 28c for winter made butter. Receipts are improving a little here, though prices are still high. Creamery prints are quoted at 22c to 23c and solids at 20c to 21c; dairy prints at 25c to 27c; large rolls at 25c to 26c, and solids at 23c to 24c. On Toronto farmers' market dairy butter brings 26c to 30c a lb.

JUNCTION HORSE MARKET

The popularity of the Union Stock Yards Horse Market, Toronto, is steadily increasing. One hundred horses were sold there last week. There was fairly brisk showing little change from a week ago. The best draft horse, 1500 to 1600 lbs each in weight, sold up to \$175, second grades up to \$175. General work horses sold at \$115 to \$125 each. The latter figure is for good ones. Second grade horses sold at about \$100. The market for carriage horses is picking up. One pair of good ones sold at \$400 for the team. Good drivers sell at \$120 to \$150 and seriously sound work horses \$60 to \$95 each. This week from 150 to 175 of the best horses in Ontario are to be offered. The general quality of the horses being received at this exchange is of a high average. Buyers desiring good ones should attend the regular sales every Monday and Wednesday.

THE BEEF CATTLE TRADE

The scarcity of feed does not account for the inferior quality of the bulk of the beef cattle offered at Toronto cattle market this winter. The feed shortage has, no doubt, caused farmers to sell unfinished stock for what they could get for it, thus flooding the market with cattle that are not wanted and which reduce the sale of well fitted and well bred animals. To sell cattle before they are in market condition is a foolish proceeding. It will pay at present prices for feed to keep them a few weeks longer, or get the top of the market. From one cent to a cent and a half a lb. or a 1000 lb beast means \$10 to \$15 a head increase, which will pay well for the extra feeding.

But a large share of the cattle offering are finished as well as fitted. To get good beef animals there must be good foundation stock. There is no use trying to get a beef animal by breeding to a dairy bull. The dairy cow and the dairy bull will be bred for a specific purpose and of milk production. But when farmers attempt to raise animals for both so many have done and are doing, from dairy cows, disaster is sure to follow, that end of their business. It is a waste of time and feed to fit them for market. If Canada is to obtain a reputation for good beef cattle, this kind of business must stop. The bulls of the beef type

to get beef producing cattle. But this is not all. Some of the so-called beef steers throughout the country are little better for beef production than dairy steers. Many breeders of pure bred stock are to blame for this. The standard of our breeding stock would be raised 10 per cent if, at least, one-

third of the pure bred bulls were converted into steers. This scrub stock would not be taking the place of good animals that are needed all over the country. Many farmers will buy a bull with a pedigree no matter what kind of animal he is. The small breeder of pure bred stock is as blameable in this respect as the



A Grand New Oat LOTHIAN WHITE

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

The Growers were all pleased.

Early, strong straw of medium length.

Get the Newest and the Best while you are at it

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

Pure and Clean CLOVER and TIMOTHY

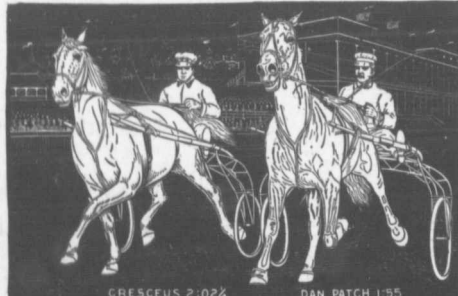
Prices of my best brands for IMMEDIATE ORDERS These all good No. 1, Government standard:

No Buckhorn	"Sun" Brand Mammoth Clover	\$1.00 per bush (60 lbs)
"Raerend"	"Sun" " Red "	\$1.00 " (60 lbs)
"Cataldy"	"Gold" " Alyke "	\$1.00 " (60 lbs)
"Mustard"	"Gold" " Alfalfa or Lucerne Clover "	\$1.00 " (60 lbs)
	"Diamond" Brand Timothy	\$1.50 " (48 lbs)

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A Marvelous Picture of 2 World Champions Don Patch, 1.55, The Pacing King Greaves 2.02½, The Trotting King We have large colored lithographs of our World Famous Champion Horses, Don Patch and Greaves, and a splendid grand contest. It is 16 by 22 in. and shows both horses as they are. If you own this picture, you can have one of these large and beautiful Colored Pictures of the Two Most Valuable Horses Ever and Champions of the World, Autotype Free. We Present "Picture of the Year" with the lithographic of the large Colored Lithograph we will mail to you free.

WRITE AT ONCE Let, Name the Paper in which you saw this offer how much live stock you own.

International Stock Food Co. TORONTO, CANADA

GREASUCE 2:02½

DAN PATCH 1:55

3 FEEDS FOR ONE CENT

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Gossip

EDWARDS, DRUMMOND AND WHITE SALE

The combination sale of Shorthorn held at the Union Station, Toronto Junction, on March 5th, by W. C. Edwards & Co., Sir Geo. Drummond and Peter White, proved a fair success. The promoters are to be congratulated upon the nerve they displayed in putting an important thing up at auction. With upwards of 100 of the most prominent breeders in Canada, as well as several American, present the sale could have been scarcely anything less than successful. The proceeds actually realized were not high, considering the financial and the local conditions, they were reasonable, although in favor of the purchaser.

As usual, some of the plums were picked up for Uncle Sam's domain. Mr. John Shaw, Harrisburg, Ill., purchased several good animals, among them Lady Burnett, Imp. from the herd of His Majesty the King. The topper of the sale was Helvedere Lily Bk 7476 (in Canadian bred) purchased by Jas. Vale, for Sir Wm. Van Horne, Selkirk, Man., at \$350. Prime Grove Lavender (7565) sold, reaching the \$300 mark. She was bought by Geo. Miller

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NO BLACK BOARD advertising of any kind will be allowed under this head, thus making a small advertisement as noticeable as a large one.

FOR SALE—Cheese Factory in Victoria County. A bargain, sure, for someone. If not sold soon, a cheese-maker wanted. Apply F. Cragg, Cambridge, Ont.

FOR SALE—Cheese and Butter Factory, well equipped, capacity 200,000, situated in a good dairy section, Easy Term. Apply Box 1, Canadian Dairyman and Farming World, Peterborough, Ont.

FOR SALE—Two De Laval turbine separators 3,500 lbs. capacity, also one Purling on Duplex Pasteurizer, 1,000 lbs. capacity per hour. The pasteurizer is especially suited for a milk dealer's business, handling both milk and cream. Apply to Box 1, Canadian Dairyman and Farming World, Peterborough, Ont.

FOR SALE—Clover cutter for Poultry, on stand, almost new, and other supplies. J. H. Callender, Review office, Peterborough, Ont.

BARRED ROCKS and BUFF ORPINGTONS—Best strains—Bred for utility—Egg record held to equal—Reply to Box 24, per hour. Wilbur Bennett, Box 228, Peterborough, Ont.

FOR SALE—61 acres, 11 miles from the city of Bradford, brick two storey house, frame barn, cow shed, chicken house, corn crib, pig-sty, orchard, 139 cherry trees, 25 apple. The property, with horse, cutter, wagons, sleighs, harness, plows and other implements will be sold for \$2,500. Come and see this property. Apply for further particulars to S. G. Read & Son, Ltd., 129 Colborne St., Bradford, Ont.

WANTED—cheese factory to rent in the vicinity of Kingston, Ont. Must be up-to-date and large capacity. Apply by letter, stating particulars, to H. BLACKBURN, 63 St. Mark St., Montreal, Que.

WANTED—Cheese and buttermaker for 1800. Six situations, good wages, 50 miles of recent employers and wages exceeded from May 15 to November 15. Apply promptly to J. SLEIGHTHOLM, Stratford, Ont.

FOR SALE—A number of imported Clyde dalemares in foal. Thomas Gandy, Clarence, Ont.

WANTED—Helper in cheese factory for six months. One with one or two years' experience preferred. Box 7, Canadian Dairyman and Farming World.

FOR SALE—Strawberry plants, Seed Potatoes, catalogue and price list free describing sixty leading varieties. Jas. Downham, Stratford, Ont.

SITUATION wanted by man competent to manage dairy farm, or to start such business. Understands grating, pasteurizing, creaming, buttering, or cheese-making, thoroughly trustworthy. Excellent knowledge of dairy cattle. Highest testimonials. Address: Box 4, Canadian Dairyman.

John Davis & Son FOLEY, ONTARIO

Breeder of Clydesdales and Shropshire Sheep and Shorthorn Cattle. Licensed Myria, Miss Ransand and Lady Eden families. Stock for Sale. Long Distance Telephone.

Brougham, Ont. Pine Grove Miss 5th, 7583, \$270, sold for \$35, and goes to help build up herd owned by J. J. Mitchell, Burlington, Ont. The only other female that reached the \$300 mark was Princess Royal, Hunsley Wood 4th, 5602, was the only bull sold, brood cow, for \$20, his price being \$350. He was purchased by S. Dymond, Barrie.

July 19th, 1907, herd of cattle sold for \$5,455, an average of practically \$150 each. The sale was conducted by Harry M. Coles, Chicago, Ill., and Capt. T. E. Bobson, Burlington, Ont., wielded the hammer in a courteous and masterly manner.

The sale, advertised in this issue, under the auspices of the Myria Sales Association, to be held at Myria on March 15th, 1908, gives to those in need of good stock an opportunity to obtain it at reasonable prices. The offering consists of 20 representative Shorthorns from the following well known families: Duchess of Gloucester; Misses Wending Gift, Miss Hamilton's Grimsen Flowers, etc. Ports head of registered Cotswold and Shropshire ewes and ewe lambs, as well as a pair of registered Dorset and Hampshire the same time. They should be eagerly sought after, owing to the market being such a flourishing one. A few registered Clydesdale stallions and mares are also included in the association. The association at former sales made the highest average of any of the lesser sales, which speaks volumes for the class of stock selected.

The Best Telephone.

The farmers in the Township of Maidstone, near Rochester, in Essex County, Ont., recently installed a rural telephone line, so that there would be no communication between them. Being installed, the Township Council took the matter up, and the telephone would give the best all round service, last the longest, and be, in every way, the most satisfactory. In order to decide this question the services of an expert were employed. After comparing the different telephones, the contract was finally awarded to the Northern Electric & Ice Co. Ltd. of Montreal. This is the strongest evidence that can be given of the efficiency of these particular telephones over all others.

Canadian Pony Society

The Ontario Horse Breeders' Association will have to choose new directors, the recent elections having been declared illegal. This was made known at a meeting of the Canadian Pony Society held at Toronto recently. Messrs. Pepper, Robinson and Somers, with the president and secretary, were appointed a committee to investigate the status of the Canadian Pony Society, as regards the Ontario Horse Breeders' Association. It is proposed to hold a pony show this coming summer. Mr. W. R. Mead presided.

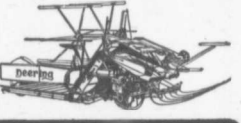
Azoturia

What do you recommend as a remedy for horses suffering with azoturia? We have had several cases of this disease in the past few years and being a considerable distance from a veterinarian, these cases have usually resulted disastrously because of our gross attendances. We would like to know of a remedy that we could use in case of emergency. J. D. Oxford county, Ont.

At first symptoms, get the horse to the nearest stable, blanket warmly and coat off his feet, if possible. Give a purgative of 8 drams aloes, and 4 drams ginger. Apply mustard, mixed with water and oil of turpentine, over loins. Feed on bran only for 24 hours, and allow him to stand idle for three days. If he goes down, make him as comfortable as possible with the water bed. Give a purgative and apply mustard as above. Give 2 drams Iodide of Potassium every six hours for 4 or 5 days, and follow this with 3 dram doses nitrate of Ammonium, three times daily. Draw the urine with a catheter every 6 to 8 hours, and give injections of warm soapy water per rectum three times daily. As soon as he recovers the use of his legs, help him to his feet. In some cases slings are used to advantage. Feed lightly and give all the water he will drink. There is a preparation called "Albomone," which by many is considered a specific for the disease. It is given in one or two ounces every 4 to 6 hours, until recovery takes place. The best treatment is prevention, which consists in giving daily exercise.

THE DEERING

GRAIN CUTTING WITHOUT INTERRUPTIONS



WHEN the grain is ripe you want the work of harvesting to go right along. You cannot afford to be annoyed by breakages and delays. Breakages and tinkering with the motor or other parts to get them to work right means more than vexatious delays. It means expense and it may mean that you will not get your grain harvested in good condition.

The Deering binder comes nearer giving you insurance of uninterrupted work than any machine you can buy. What can be more satisfactory to the grain grower at the beginning of harvest than to have a machine he knows he can depend upon?

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right working but it harvests all the light. It handles tall and short, light and heavy, down and tangled grain all to a nicety and with less possible loss. Machines are made in 5, 7, and 8-foot cuts. In addition to grain harvesting machines the Deering line includes binder twine, mowers, tedders, sweep rakes, side delivery rakes, hay loaders, stackers, corn machines and knife grinders. Also a complete line of tillage implements and seeding machines, comprising disk drills, shoe drills, hoe drills, cultivators and seeders, smoothing, spring-tooth and disk harrows, land rollers and scufflers. Also gasoline engines, cream separators, hay presses, feed grinders, wagons, sleighs, and manure spreaders.

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MAPLE CLIFF FARM BREEDERS OF

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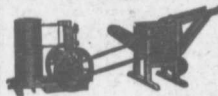
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