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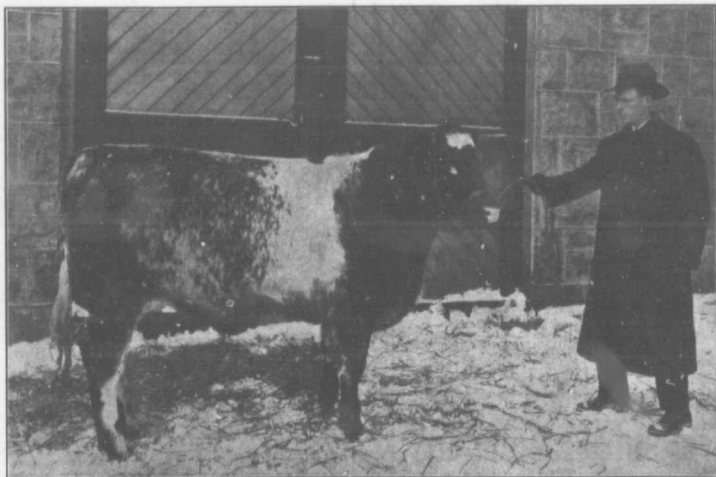
VOL. XXVII

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The CANADIAN DAIRYMAN AND FARMING WORLD

U.S. and Foreign Agents
The Agricultural Dept.
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Commerce

PETERBORO, ONT. DECEMBER 23, 1908



A CHAMPION YOUNGSTER WHICH BIDS FAIR TO WIN FURTHER HONORS

Excitement ran high at the Guelph Winter Fair when the champion Shorthorn steer of any age was judged. The prize went to Dunrobin Villager, owned by D. Gunn & Son, of Beaverton, Ont. This steer is a beautiful roan with even lines, a nice soft coat of hair of excellent quality, and is very firm and evenly fleshed. He was afterwards sold on his feet for ten cents a pound to a noted feeder who wants him for next year's International at Chicago. Mr. R. E. Gunn, the manager of the Dunrobin Stock Farm, who is standing in the illustration, is coming to the front as an exhibitor of Clydesdales and Shorthorns. Recently, as set forth in our issue of December 5, Mr. Gunn installed a herd of dairy cattle. He expects to make dairying the foremost branch of his farming operations.

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WE WANT AGENTS FOR A FEW UNREPRESENTED DISTRICTS

New Names Suggested Since Close of Competition

Ever since our competition for suggestions for a new name closed we have been receiving belated letters from our readers suggesting more names. These, of course, could not be considered. Some of them, however, are here given:

| | |
|---|---------------------------------------|
| Farmer and Dairyman Instructor | Miss A. E. Eliford, Perth Co., Ont. |
| The World's Granary | Miss H. B. Lett, Carleton Co., Ont. |
| Rake and Gleaser | Miss H. B. Lett, Carleton Co., Ont. |
| Cowan's Dairyman | T. Porter, York Co., Ont. |
| Farm World | Samuel Francis, York Co., Ont. |
| Farm Advocate | Samuel Francis, York Co., Ont. |
| Canadian Farmer | Samuel Francis, York Co., Ont. |
| Farm Guide | Samuel Francis, York Co., Ont. |
| Farmer's Sun | Samuel Francis, York Co., Ont. |
| The Adviser | Miss Hyfield, Ontario Co., Ont. |
| Canada's Best | George Brooks, Haliburton Co., Ont. |
| Farming and Dairying | Robert Fritch, Jr., Renfrew Co., Ont. |
| The Rural Intelligencer | N. S. McLaughlin, Huron Co., Ont. |
| Rural Intelligencer Exchange | N. S. McLaughlin, Huron Co., Ont. |
| The Successful Dairyman and Farmer | N. S. McLaughlin, Huron Co., Ont. |
| The Dairyman's and Farmer's Success | N. S. McLaughlin, Huron Co., Ont. |
| The Dairy and Farm Best Exchange | N. S. McLaughlin, Huron Co., Ont. |
| The Dairy and Farms Applied Science | N. S. McLaughlin, Huron Co., Ont. |
| The Cosmopolitan Advocate | Frank Vice, Durham Co., Ont. |
| The Farming Sentinel | John R. Philip, Middlesex Co., Ont. |
| The Rural Educator | J. Wilson, Halton Co., Ont. |

The Taxation Question

Another View on Taxation

Ed., The Dairyman and Farming World—I have noted with pleasure your articles on taxation. It is a subject which should receive considerably more attention from the average citizen. So far, I cannot concur with any of the articles written. Here is my view: It is granted by you that the province has need of revenue to be devoted to public purposes. Its right to collect same has also not been questioned. But the justice and expediency of our present system is seriously doubted, and not without reason.

All our wealth is taken from the one great reservoir—our natural resources. Therefore, the part which is collected in taxes must come from the same source. We may imagine that in some mysterious way we may have our public moneys collected by tariffs, succession duties income tax, etc., but as surely as fate, it ultimately falls upon the products of our farms, forests, mines and fisheries. There is no other place for it to fall upon.

The question is how should it be distributed. Surely the state should look for its revenue from those who have been granted the privilege of occupying, exploiting or enjoying, to the exclusion of others, any portion of its domain, and that in proportion to the value of each particular parcel. Our present system of fineing industry and thrift by taxing buildings, improvements, etc., is unjust, foolish and unpatriotic. For surely it is none of the state's (all other citizens') business how much money a man makes so long as he pays his fair tax on the particular portion of the natural resources to which he has been granted a monopoly.

BAIS OF PRESENT SYSTEM

The argument that taxes should be paid according to ability or wealth is untenable, though it is made the basis of our present system—if it has a basis. The simple illustration of two farmers going on to two similar virgin farms, equally well situated will prove its unreasonableness. One is energetic and industrious, the other lazy and indolent. One soon rich and has many improvements, the other remains poor and his land is much the same as he found it; yet they had equal chances, and as far as the state is concerned they should contribute equal amounts in taxes. For they have been granted privileges of equal value.

My objections to the present system are: It is unjust, and falls too heavily upon the poorer people. It is healthy

and almost incapable of being watched and calculated by the average citizen. It fines industry and thrift. It discourages the accumulation of wealth. It hinders production and thereby breeds poverty.

The remedy I would suggest is a gradual lowering of the tariff until in most cases it has vanished, and the adoption of direct taxation upon land and special privileges which are in the nature of monopolies. If this were done we would soon have less extravagance in public affairs, for every man would know how much he was paying. The greatest gain of such a system would be in the stimulus as to the production of wealth, and to the making of permanent improvements.—T. K. M., Wellington Co., Ont.

Your Golden Opportunity

We would call the attention of our readers to the free courses offered on page eight of this issue. A course in horticulture or in stock and seed grain judging at the Ontario Agricultural College, which can be obtained absolutely free, is indeed an unique one. To be able to judge live stock and seed grain is a valuable acquisition to any one connected with farming.

A short course of lectures taken at Guelph will not only enable one to make a better farmer of himself, but he will be made a broader-minded man and a better citizen through having come in contact with able and experienced professors who conduct the courses. The conditions of this absolutely free course are so simple and easy to comply with that we hope all who can will take advantage of our offer and take this opportunity of preparing themselves for their life work.

Items of Interest

The annual meeting of the Shire Horse Association of Canada will be held in Room "G," King Edward Hotel, Toronto, on Wednesday, January 13, 1909, at 10 a. m.

The Manitoba Agricultural College has recently appointed W. H. Peters of Ames, Iowa, Agricultural College, to the position of the animal husbandry. Mr. Peters is especially well fitted for this position. He was Iowa's high man on the International Stock Judging Team in 1907. Since September 1908 he has filled very acceptably the position of animal husbandry at Ames.

At the general assembly of the International Institution of Agriculture held in Rome recently the Hon. Syd. Fisher, Minister of Agriculture for the Dominion of Canada, was chosen vice-president.

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AGRICULTURE, THE KEystone OF CANADIAN PROSPERITY

Vol. XXVII.

FOR WEEK ENDING DECEMBER 23, 1908

No. 49

DANISH FARMERS ARE T'KING OUR BACON TRADE

Canadian Exports of Bacon to Great Britain Have Decreased Until Our Position in the British Market is Seriously Threatened.

AT last we Canadians seem to be awaking to the fact that we are in grave danger of losing our export bacon trade. If we do, it is going to mean a loss of many million dollars to the farmers of Canada. The dairy industry, also, will be seriously affected as hog raising has been proved to be one of the most profitable adjuncts of the dairy.

For years we boasted that we led the world in our exports of bacon to Great Britain. We can do this no longer. During the past seven years the Danish farmers have taken the palm from us. Last year they shipped the produce of twice as many hogs to Great Britain as we did. They did this in spite of the fact that the price of feed is higher in Denmark than it is in Canada.

STRIKING FIGURES

Let us look at what has happened during the past seven years and ask ourselves what will happen during the next seven years if things are allowed to go on as they have. The following table shows how seriously our exports have fallen off, while the exports of our chief competitors have increased:

| HOG PRODUCTS SHIPPED TO GREAT BRITAIN | | |
|---------------------------------------|-------------|------------|
| | 1900 | 1907 |
| Canadian | \$1,189,976 | \$ 803,940 |
| Danish | 1,087,000 | 1,767,970 |
| Irish | 410,500 | 483,656 |

In the excellent address on this subject, delivered at the Guelph Winter Fair, by Prof. G. E. Day, which was reported fully in our issue of last week, Professor Day made some statements that are of such outstanding importance we think it well to repeat them here. Professor Day said:

"If we drop the bacon hog at this critical juncture, we may expect to see the swine industry shrink to a much greater extent than it has shrunk already."

"Some Canadian farmers have found bacon feeding unprofitable. Other men have found it very profitable indeed."

"If feeding bacon hogs is only a moderately profitable adjunct to our business, we had better foster it and strive to improve it, for profitable branches of agriculture are not so numerous that we can afford to treat them lightly."

"The man who loses money on hogs is usually

the man who overstocks his premises, and attempts to keep hogs under circumstances which makes success impossible."

"The hog is generally carried most profitably as an adjunct to other farm operations—as a sort of side line."

"The price of feed in Denmark is higher than it is here. The Danish hog feeder has to buy by far the greatest part of the feed for his hogs."

"The Canadian farmer has an immense advantage over the Dane and can produce hogs at a much lower cost."

When we bear in mind that Professor Day has conducted extensive experiments in the raising

A Merry Christmas
and a
Happy New Year
To All.

of hogs in this country—in which work he has had the co-operation of several hundred practical farmers—and that he visited Denmark a couple of years ago to investigate the conditions there, we must admit that his opinions are deserving of every consideration. Of late years, in Canada, it has been popular to heap abuse on our Canadian packers. This has not helped to improve matters nor is it likely to. As long as our farmers and packers fight among themselves, the Danish farmers are going to continue to beat us in the British market.

TIME FOR ACTION

The time has come when we must take concerted action if we are going to regain the position we have lost, or even hold our present position.

The first point we must decide is, "Can hogs be raised at a reasonable profit at the prices that have prevailed during the past few years?" If they can, then steps must be taken immediately, by our more successful hog raisers, by our swine breeders' associations, by our pork-packers, by our Provincial and Dominion Governments, and

by our agricultural press, to show how absolutely necessary it is that, if we are to retain our export bacon trade, we must produce a more uniform supply of hogs.

If we find that we cannot hope to raise hogs profitably, and that we cannot compete successfully with the Danes, and other European farmers, then the sooner we cease to strive for that trade the better. The astonishing feature of the situation lies in the fact that the Danish farmers, so we are informed by a director of one of our leading milling companies, buy whole shiploads of feed from our Canadian mills each year, to feed to their hogs, and yet their hogs are driving our hogs out of the British market. Can this mean that the Danes are better feeders and fanciers than we are? Surely their cheaper labor and co-operative packing houses cannot offset our great advantage.

CLAIM HOGS ARE PROFITABLE

As Professor Day states, and as letters we have received from farmers show, a large proportion of our more successful breeders of hogs, are convinced that even at the prices that have been paid for hogs during the past three years, it has been possible to produce hogs at a profit. An editorial representative of The Canadian Dairyman and Farming World, who recently interviewed a number of leading farmers and agricultural authorities in Ontario and Quebec, was assured by them all that they believed that by careful feeding, hogs can be raised at a reasonable profit, even at the prices that have prevailed this year. One breeder stated that at one time he had raised hogs at a cost of \$2.35 a cwt. (not counting anything for the whey fed), and sold them at a profit at \$4.25 a cwt. He had figures to support his claim. All the parties who were interviewed admitted that there is grave danger that our bacon trade will suffer serious injury unless steps are taken immediately to improve the present situation.

ACTION REQUIRED

With the facts we have before us we must face the situation squarely and be prepared to deal with it intelligently. As the interests involved are national in scope the question is one that should be considered by the Dominion Government. The question that must be answered and answered conclusively is: "Can hogs be raised at a profit under such conditions as have existed during the past period of years?" To settle this question both the Dominion and Provincial Governments should undertake far more extensive experiments and investigations than have yet been attempted. In this connection an effort should be made to secure reliable information from hundreds of our farmers to find how much it does cost them to raise hogs. If necessary,

On and after the first of January, 1909, the name of The Canadian Dairyman and Farming World will be changed to - - -

Farm and Dairy and Rural Home

Our readers and advertisers are asked to bear this in mind and to tell their friends about it, so that no person need be surprised when they receive their copy of the paper after the first of the new year and find that it contains a different name. There will be no other change. The front cover design and the rest of the paper will be just as they are at present. Remember the name—Farm and Dairy.

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Toronto, Ont. - - - Peterboro, Ont.

any who might need it should be assisted to determine the cost of production. If the results show that there is a profit in hogs under existing conditions they will be published broadcast through the press and through farmers' institute and other meetings. The reverse is true also.

In the second place, we would suggest that our Dominion government should arrange to have a commission composed of leading Canadian farmers, and hog raisers, visit Great Britain and Denmark to investigate conditions over there. If Danish far-

mer would bring the best returns? The same principal also applies to onions. Why not store them in a co-operative building and let them on to the market as the market demanded them, and thus eliminate the dealers and middlemen?

"Ontario is hampered by producing too many varieties of potatoes. As a result, it is difficult to procure a carlot or several carlots of one variety. Dealers recognizing this go past us to the Maritime provinces, where they can get carlots and trainloads of potatoes of uniform quality.

for plowing. As it cannot stand good cultivation, the best remedy where it has got a foothold is to plow up the meadow and follow it with a live crop of some kind. The bare fallow of course will do the trick all right, especially where the ground is frequently cultivated, with the broad shared cultivator. A short rotation of three or four years' duration where it would be sowed down to clover one year, and followed with a hoe crop, is among the best methods adopted for its speedy eradication.

If one wishes to keep clear from it they must not only watch for its presence in the small seeds and hay they buy, but they must see that the seed does not go to seed on the roadsides or waste lands near them.

A little vigilance on the part of the farmers in this way would help them very materially where the plant is being introduced.

In a locality north of Lindsay, Ont., a few years ago, this weed made its appearance in a field meadow. Evidently the seed had come in some timothy seed used in seeding the field down. Gradually the weed crept towards the roadside. It found the fence no great barrier and it began to occupy first one side of the road and then the other. Along the road it spread until it came to quite a large creek. Here it was thought the bridge would check its spread in that direction; but recently neither stream nor bridge could effectually stop it and now it is found working its way along the roadside on the other side of the stream. Nor is this all. It has been spreading to the adjoining fields and unless very carefully watched there will be hundreds of acres in that locality more or less overrun with it and all from a small beginning.

The Dehorning Question

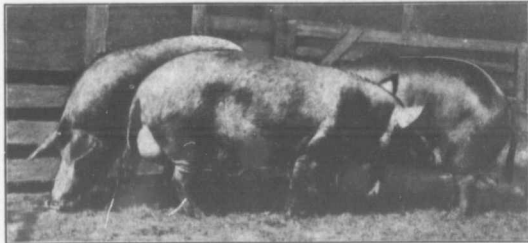
A. E. Caban, Prince Edward Co., Ont.

Now that the man with the clippers is making his annual round, the dehorning question again becomes a live one. While the practice of dehorning is not as prevalent as formerly, especially among milk cows, yet there are in all probability to-day in the yards and stables of the farmers of this country, many milk cows that have shrunk in their milk flow and lost in condition, as well as thousands of young cattle that have lost in flesh very seriously, owing to the ill effects of this operation.

That the practice of dehorning is desirable, except perhaps in the case of the pure breeds, is to-day a generally accepted fact by our dairy men and feeders. Granting this, the question arises, is there a satisfactory method of dehorning that will avoid the serious losses entailed by the ordinary process. The answer is decidedly, "yes," by dehorning the young calves with caustic just as the horn is starting.

We find many writers condemning this practice. They say that calves dehorned in this way are when grown, "frequently very rough with their heads." Now these men are simply accepting a common theory that, like many other theories, is found upon close examination to have very little fact to sustain it. It has been proven by many years' experience, that calves dehorned with caustic do not develop the objectionable trait referred to. There are herds of dairy cattle in this country that have never grown a horn, and yet are just as quiet and peaceable as could be wished; and these cows were all dehorned with caustic when they were young calves. So much for theory.

Then again, these writers say: "They prefer dehorning with the clippers, because once having known the use of horns, they become more docile to lose them in this way." To follow the same line of argument I suppose they would say, "Don't bother with your young colts until you want to use them, and then break them by force, they will have to be conquered then, and that



Prize Winners at the Canadian National, Toronto, 1908

These three hogs owned by D. Douglas & Sons, of Mitchell, Ont., constituted the first prize Tamworth herd. Note the light jaw, the smooth shoulder, the even, well-arched back, the excellent spring of rib, and the lengthy side of the hog in the foreground. Note also the nicely filled ham carried well down to the gambrel joint.

mers and pork packers are beating us in the production of bacon, and they are, we should find the reason. That can be done best by examining their conditions at first hand. Farmers from other countries, such as the Scottish commission which toured Canada this year, are constantly visiting this country to find what we are doing. It is time that we followed their example by sending some of our leading farmers to Denmark. The report of a commission of farmers would carry more weight than a report of a government official.

Our readers are invited to discuss this question thoroughly. It needs the most careful consideration. Let us have your views.

Co-operative Association in Ontario

"There is no better branch of farming in the Niagara District to-day than fruit growing," said W. L. Smith, of Toronto, at the recent annual meeting of the Ontario Agricultural and Experimental Union. "This has been brought about almost wholly by co-operation among the fruit growers." The speaker referred to the magnificent exhibit made by Norfolk County at the recent horticultural exhibition in Toronto. The success of their effort had been due to co-operative spraying and pruning in the district noted. The great success of fruit growing in the Niagara District had been brought about by just such measures. They would hold good practically anywhere.

"Co-operation among the growers brought about better transportation. The telephones was instrumental in bringing about better distribution. Noting the beneficial results which have come from co-operation in fruit growing, why confine it there? Why not enlarge its scope and have other co-operative associations throughout the province?"

"Why not have a co-operative corn-growing association in the western counties of Ontario? They have corn to sell and farmers throughout the middle and eastern parts of Ontario must have seed corn to plant. As they cannot mature it, they must buy it from those who can, thus a co-operative buying or selling association as the case might be, would prove of great service in this particular. The same applies to beans, which are largely grown in the county of Kent. Why should they not co-operate, and build their own storehouses so that they could hold their produce over and place them on the market when they

If farmers of a particular section would breed the same kind of fowl and sell a uniform product, they would increase their returns from this great line of industry by 15 to 20 per cent.

"The co-operative idea can be carried much farther. There is no reason why we should not have co-operation among consumers, such an organization as could buy from the farmers direct. In Denmark, all such commodities are handled co-operatively. They buy in a co-operative way. One-quarter of their total egg production is exported. Sixty-six per cent. of their bacon, and 80 per cent. of their dairy products are also exported. Practically all of this is handled in a co-operative way.

"In the United Kingdom, consumers buy from their co-operative stores, of which they are shareholders. The produce is sold at market prices, not below. The profits accruing are distributed quarterly. Surely it is possible to organize a buying association in Toronto. As it is now, the producer often gets but one-half of what the consumer pays."

Ox-eye Daisy

T. G. Raynor, B. S. A., Seed Branch, Ottawa

One of the commonest weeds to be seen during late June and throughout July is the Ox-eye daisy, the flower of which is much sought after for bouquets. It is one of the worst meadow weeds we have. It infests other crops as well. The extent depends upon the method and thoroughness of the cultivation. It is also very much in evidence along roadsides and in broken land pastures. The presence of this weed in the hay deteriorates the value of the hay for sale or for feed. One of the methods of its distribution is by importing hay containing it. The seed is quite small and has a striped-like appearance.

When the plant seeds and the wind is blowing hard it will be carried some distance. It is frequently found as a weed seed impurity in timothy and alsike, and but rarely is it found in red clover. From a thick heavy underground rootstock growing near the surface a number of flower stems are shot up and single flowers with white outside and yellow centre develop.

It spreads most rapidly in those sections of the country where hay is grown extensively and where meadows are left a number of years before being plowed or where the pastures are too rough

will make them more docile." The argument is altogether fallacious, in one case as in the other, and does not argue a high conception of either dairying or horsemanship. Such docility is the docility of fear, and fear has no place in attaining the highest success in either industry.

Let our dairyman experiment for themselves along the line of dehorning their young calves, and very few of them will want to return to the needlessly cruel and wasteful method of cutting off the horns that never should have been allowed to grow.

Contagious Abortion*

Dr. H. G. Reed, V. S., Georgetown, Ont.

Abortion in cows may be divided into two classes, viz.: Contagious and non-contagious. As the terms would indicate, the former is a highly dangerous malady while the latter is comparatively simple. Any pregnant animal is liable to abort as the result of an injury. The trouble is also sometimes produced by the feeding of ergotised grasses or hay. This condition of the fodder is more commonly met with on grass or hay produced on low-lying or marshy ground, and occasionally a cow will be met with which will never carry her calf to full term because of some constitutional weakness. Consequently, it is quite possible for a dairyman to have one or more cases of abortion in his herd and still have no reason to suspect any contagion.

However, even in a case of simple abortion, which may be known to have resulted from an injury, it is good practice to remove the patient from other pregnant animals, to carefully remove the foetus and after-birth, and clean up and disinfect the surroundings in order to remove all trace and smell of the abortion. It sometimes happens that a healthy cow will abort just because a cow in an adjoining stall has done so. Some sympathetic influence seems to exist among cattle which it is impossible to explain, and which makes these precautionary measures advisable. In the case of cows being fed on ergotised fodder, it can be readily understood that in a herd subjected to the same conditions all would be more or less liable to suffer and several animals might abort and yet leave no reasonable grounds for suspecting the presence of contagion.

Contagious abortion is a disease very much to be dreaded by the dairyman, it has been a severe and immense loss to some dairymen, and too much care cannot be taken in order to prevent its appearance in a herd of cows. It is a germ disease and may be communicated from one cow to another by contact, or it may be carried through a herd on the hands or clothing of an attendant, who has been caring for diseased animals. The utmost care should be used in this respect and the man who looks after a cow which has suffered from contagious abortion ought to not only wash his hands carefully in carbolic water, but he should remove his outside clothing before he comes in contact with healthy cows.

However, the most dangerous source of contagion and the one most responsible for the spread of the disease is the use of bulls for breeding purposes, which have had access to diseased cows. No bull which has been exposed to contagion

in this way should be used for breeding purposes, for three or four months, and during that interval, his sheath should be flushed with an antiseptic solution twice a week in order to make sure that all trace of the germ is destroyed. If this precaution is not taken, he will be likely to infect with the disease, every cow to which he has been bred. The cow which has suffered from this malady should not be bred again for at least three or four months, and during that time her vagina should be regularly flushed the same as is done with the sheath of the bull. The external genitals and around the root of the tail should be regularly and carefully washed with some disinfectant in order to insure the destruction of all traces of the disease. The attendant on diseased animals should have a suit of clothes for use while around them and should be careful to remove it and clean himself thoroughly before going in contact with healthy cows.

The walls and ceiling of infected stables should be white-washed and the floors thoroughly cleaned, and some of the ordinary disinfectants freely used in order to secure the destruction of all germs of the disease before healthy cows are allowed into it. Infected premises can thus be made perfectly pure from contagion if the precautions taken are careful and thorough.

Every dairyman should be alive to the danger and too much care cannot be taken to guard against a malady which has proved itself a veritable scourge to dairymen in many sections.

Co-operation in Kent County

"Owing to a combine which formerly handled the beans produced in Kent County and which realized a profit of 25 cents a bushel on the beans it handled," said Mr. J. O. Laird, of Blenheim, Ont., in a discussion on co-operation, at the recent annual meeting of the Experimental Union, "the farmers, in 1903, organized themselves into a joint stock company, capitalized at \$35,000, to handle all grains, etc., in their own best interests. Up to the present \$14,000 of this capital has been paid in. This plant, which handles beans and grain mostly, handled last year, from August, 1907 to August, 1908, 400,000 bushels of grain. The farmers received 10 cents a bushel more for their beans on the average than they received before

this, on an outlay of only \$14,000 or \$15,000. Co-operation of this kind when carried out for 10 or 20 years, means a handsome sum to those connected with the business.

"Why not work this same principle out in other things, such as handling rope, salt, twine, cement, etc.," he concluded. "In addition to the foregoing profits made by the farmers of Kent County, there are other benefits besides which must be reckoned with. The Kent Milling Co. also does a large business in grain. They probably do as much as does the co-operative company and as they are forced to pay the same price, for grain, the figures given above are approximately only half of the benefits received."

Alfalfa Growing in Ontario

Prof. C. A. Zavits in discussing the value of alfalfa at the Winter Fair, stated that it was interesting farmers throughout all Ontario. The hay from this crop contains 11.4 per cent. protein in comparison with 6.4 per cent. in red clover, and 12 per cent. in brass. In carbohydrates it contains 43 per cent. in comparison with 38 per cent. of red clover and 44 per cent. of brass. The nutritive value is thus intermediate between red clover and brass.

As a fertilizer alfalfa is a very valuable crop. The hay itself is worth \$7.34 for the fertilizing ingredients which it contains and when fed 90 to 95 per cent. of the elements of fertility go back to the soil. Besides, alfalfa obtains most of its nitrogen from the air and much of its mineral matter from the sub-soil, consequently the surface soil loses but very little of its plant food. It is sometimes said that a field of lucerne cannot be plowed, but this is not true. Although harder to plow than red clover, the soil is invariably found to be more friable.

Alfalfa is not as suitable for putting into the regular rotation as red clover, but it is well suited to rough fields, high land or fields far from the barn as it may be left standing for years. The one important essential, wherever grown, is a well-drained sub-soil.

At the college, four cuttings were obtained in 1906, giving a total of 20½ tons of green crop and almost 7 tons of hay per acre. This was the only year in which four cuttings were ever obtained and since 1900 the average yield per acre of green crop has been 21½ tons and a little over five tons of hay.

In preparing the soil for the crop the field must be well cleaned and must be entirely free from Canadian Blue Grass, as the alfalfa is not a good fighter during at least the first two years.

Alfalfa sown at the rate of 20 lbs. an acre in front of the drill with one bushel of barley per acre gives much better results than when sown behind the drill. The barley, when cut, should be removed as soon as possible because the young plants underneath the shocks are apt to suffer.

Mr. Hy. Glendenning, of Manilla, in the discussion, spoke against pasturing alfalfa. He found the sowing of orchard grass in low parts of the field to be satisfactory as both will be ready for cutting at the same time. Farmers sowing alfalfa for the first time should treat the seed with nitro-culture in order to make sure that their soil is inoculated with the bacteria so necessary to the vigorous growth of the crop. The sowing of inoculated seed in front of a drill assures the covering of the seeds which is necessary before the bacteria will multiply.

In cutting and curing, great care should be observed to preserve the leaves which are the richest part of the plant. For the first crop, cut in the morning, ted in the forenoon and afternoon, and put up in small rolls after the second tending. For the second and third crops, Mr. Glendenning, never cuts alfalfa.—H. C. D.

Photographs and articles are always welcomed for publication in these columns.



The Swepstakes Holstein Cow at the Guelph Winter Fair
Lady Aggie DeKol, 4127, owned by M. L. Haley, of Springfield, Ont., first in the class for Holstein cow 48 months and over. Her production for the three days' test was 253.32 lbs. milk, testing 3.7 per cent. fat.

the company was organized. Aside from this, the company makes a handsome profit.

"Reckoning that the farmers make from five to six cents a bushel more for their grain than they did before, this would total a sum of \$120,000 which they had received during the past five years more than they would have received had the farmers' company not been organized, and

*An address delivered at the Winter Fair, Guelph.

Water Shortage Causing Trouble

Owing to the drought which has prevailed in many parts of Ontario and Quebec and even in the Maritime Provinces the water supply situation on many farms is critical. Some correspondents have written us that they have had no rainfall worth mentioning since August. Wells and springs and in many instances creeks have gone dry. Many wells that were never known to fail before are now empty. Farmers are forced to haul water from neighboring creeks and rivers or take the alternative of driving their stock to the water. Since winter has settled down in earnest, and gives every promise of being here to stay, many farmers are anxiously viewing the question of their water supply.

The situation is by no means serious in Nova Scotia. Our correspondent, Miss Erico Watts, writes: "Nova Scotia is a well watered country and hence no inconvenience has been experienced on account of the dry weather." She says, however, that the brooks have never been so low before, though the springs appear to be inexhaustible.

In Eastern Quebec, also, no partic-

ular fear is entertained as regards the water supply. Mr. John Manson, of Compton County, Que., writes: "After a dry season the farmers have no cause for complaint for the early snow which melted helped the wells and springs considerably." Mr. E. E. Wiley writing from the Eastern Townships, Que., says: "The snow storm in the latter part of November was a great blessing to this part of the country. Coming as it did on the soft unfrozen ground it greatly helped the water supply which had been rather low during the latter part of the early fall. The Eastern Townships have not suffered as have some of the others, as there are plenty of good springs in the hills and valleys."

Coming to Ontario, however, the problem of supplying the stock with water is grave. Mr. W. A. Foster, writing from Prince Edward County says: "A number of the farmers have found great difficulty in supplying their stock with water, having to take them considerable distances to drink. Wells never known to go dry before are dry. The swamps froze, when dry, something extraordinary for this time of year, and hence the creeks can get no water from that source." Mr. Geo. Boyce, Carleton County, Ont., writes: "There are scarcely any wells in this locality where a full supply of water can be got."

The situation is much better in Dur-

ham County, Mr. J. Baker writes: "This locality has experienced continual dry weather throughout the season. The wells and springs, however, have given us a continual supply of water." Haliburton County is also well-fixed for water, Mr. J. P. Hartin writes: "Although in some instances there is shortage of water, speaking generally, we will have no scarcity of this part of the country."

In Bruce County again, the situation is more serious. Mr. Cecil Swaid writes: "There has been much difficulty in getting enough water for stock since Sept. 1st. No one ever saw our lakes and rivers so low before. The recent downpours, however, have relieved the situation somewhat."

Mr. Chester Nicholson writing from Wellington County says: "The water supply is a serious question with many of our farmers. About 60 per cent. are well supplied. The arbuton wells are of course standing the test;

Jan. Laird, says: "Fully two-thirds of the farmers are either drawing water or driving; their stock for drink."

And so the situation stands; in some cases the farmers have plenty of water and in others barely enough is available for household use. When we take into consideration the large amount of water required by the live stock the seriousness of the situation becomes apparent. When it is necessary to haul water for the stock or drive the stock to the water, there is always a danger of them not getting enough. Again when cows have to be driven long distances for water and then having to drink ice-cold water, the shrinkage in the milk flow and in the consequent income, is no mean consideration.

The only solution of the difficulty seems to be in preparing large reservoirs, either cisterns or ponds, to hold water for seasons of drought, or in drilling artesian wells. Both, however, are expensive, especially the latter

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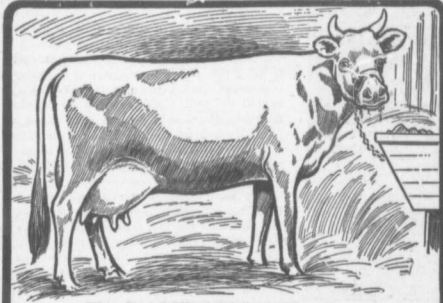
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In the class: Grade cow, 36 months and under 48, owned by M. L. Hay, Springford, Ont. She produced 133.69 lbs. milk during test 3.9 per cent fat, in the three days' dairy test Fair.

many, however, find it necessary to draw water for their stock or drive their stock some distance to water, the writer being one of the sufferers, his windmill standing idle and the basins in the barns dry, the first time such a thing has happened in his experience. Another season similar to this would induce many to sink artesian wells."

In Middlesex County farmers are feeling the effects of the drought as elsewhere. Mr. C. M. MacFie, writing from that county says: "Profiting by previous experiences many have prepared for the drought by digging reservoirs for storing the water or by boring wells in rock and in some cases drilling in the rock. Some artesian wells have proved failures although some excellent ones have been found. One well near here is keeping the cattle on 500 acres in water. As much of our land is heavy upland clay a good pond seems to be the only solution to the water problem in a dry season. On looking over my day book I find we have had only six or seven light showers since August 19th. We need 48 hours of steady rain to prepare the country for winter."

Considerable matter relating to the shortage of water has been published in our "Farmers' Club" department, during the past three weeks, as it came in from our correspondents. In parts of Hastings, Northumberland, Peterboro, Victoria, Brant, Welland, Norfolk, Wentworth, Huron, and Lambton counties, and even in the St. Lawrence Valley, of Thunder Bay District, the problem of water supply is a critical one. One of our correspondents in Lambton County, Mr.

which besides is not always a sure solution. If the government would adopt a proper forestry policy great benefit would result, especially in sections where there are large areas of waste land.

Seed Exhibit at Guelph

The Winter Fair Board this year offered prizes for oats from the prize winning fields that were in the Standing Field Crop Competition last summer. There were seventy-six entries and Prof. Klinek, who judged the grain said that the exhibit was one which would make the heart of any seedman glad.

The exhibit was the largest that Prof. Klinek had ever seen. The remarkable thing about it was the good quality of the grain. Only a few samples could be thrown out on account of weed seeds and almost every sample showed unusual care in cleaning.

A few samples were thrown out because the crop was wet on the green side and fully ten per cent. were set aside because of lack in uniformity. About one-half of the exhibits were thrown out because of the presence of other grains and not a single sample was found to be pure in this respect.

In giving the final decision the weight per measured bushel was taken into consideration. Several samples were also hulled and the percentage of hull calculated.

The prize winners were announced in last week's issue.—H. C. D.

Renew Your Subscription Now.

The Feeders' Corner

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

Rations for Jersey Cow

I have a Jersey cow and an anderson to feed her as well as I can for milk flow. I have hay, green oats in which peas did not do well, potatoes and oil meal, and can get bran, turpiss, etc. You might give several rations.—A. J. M. Blackview Bridge, N. B.

The feeds available are suitable for milk production so far as they go. If you can get a few turnips and some bran you will then have all the feeds necessary to get the very best out of your cow. If the cow fails to consume the following ration then reduce each part proportionately. Or if she seems to need more, increase the parts proportionately. The amounts mentioned are for one day and might be fed in two approximately equal portions or in three feeds as suits the feeder.

If turnips are fed I would suggest their being given immediately after milking, and after the milk has been removed from the teats. If the milk is for table use the turnips may be used in fairly large quantities as one soon grows accustomed to the flavor. If butter is to be made, then great care must be exercised to prevent the butter having a turnip flavor.

ROUGHAGE RATIOMS

Hay (mixed timothy and clover) 5 to 10 lbs.
Green oats (as described) 5 to 10 lbs.
Potatoes (at noon if desired) 10 to 15 lbs.
Turnips (right after milking) 10 to 15 lbs.
The meal mixture most suitable to feed with the above would be as follows: Bran 100 lbs.; oil meal 100 lbs.; crushed oats 200 lbs. This should be fed in such quantities as is found most profitable.

I would suggest one pound of the meal mixture for each five pounds of milk produced. If milk is worth more than five cents a quart, then a somewhat heavier meal ration might be fed, say one pound meal mixture for four pounds milk produced. The meal should be fed in two equal portions, night and morning.

If it was not found convenient to get bran and turnips, then I would suggest the following as the ration likely to prove most satisfactory: Hay (mixed) 5 to 10 lbs.
Green oats 10 to 15 lbs.
Potatoes 15 to 20 lbs.
Oil meal 2 to 4 lbs.
The meal mixture to be fed at the same rate as described above, that is according to the amount of milk being produced.—J. H. Grisdale, Agriculturist, C. E. F., Ottawa.

Silage Rations for Steers

I intend feeding about 15 steers (2 year olds), weight from 1000 to 1100 lbs. each, and not having fed silage before. I will be pleased to have you advise me as to feed to feed with the material I have, so as to get the cattle ready for export early in the spring. The feeds I have on hand are corn, silage, oats and barley meal, cut straw, timothy and clover hay.—O. E. Petrola.

Steers intended for the spring markets should start off in such a way as to insure their making the very best use possible of the food consumed during the whole period. As a preliminary or preparatory ration I would suggest for two or three weeks for each steer.

First period—Three weeks:
Clover hay 10 lbs.
Cut straw (mixed) 8 lbs.
Corn silage (mixed) 50 lbs.
Oat chop 1 lb.
During last week increased or reduced

proportionately according to appetite of steers.

Second period—Six weeks:
Clover hay 5 lbs.
Timothy hay 5 lbs.
Cut straw (mixed) 6 lbs.
Corn silage 40 lbs.
Mixture, 3 parts oat, 1 part barley fed: 1st week 2 lbs., 2nd week 3 lbs., 3rd week 3 lbs., 4th week 3 1/2 lbs., 5th week 4 lbs., 6th week 4 1/2 lbs. per steer per day.

Third period—Four weeks:
Clover and timothy hay of each 5 lbs.
Cut straw 5 lbs.
Corn silage 35 lbs.
Mixture equal parts oats and barley, fed: 1st week 4 1/2 lbs., 2nd week 5 lbs., 3rd week 5 1/2 lbs., 4th week 6 lbs. per steer per day.

Fourth period—Four weeks:
Clover hay 5 lbs.
Timothy hay 5 lbs.
Cut straw 5 lbs.
Corn silage 35 lbs.
Meal mixture, oats 1 part, barley 3 parts, fed: 1st week 6 lbs., 2nd week 6 1/2 lbs., 3rd week 7 lbs., 4th week 7 1/2 lbs. a steer per day.

Fifth period—Till sold:
Clover hay 5 lbs.
Timothy hay 5 lbs.
Cut straw 5 lbs.
Corn silage 35 lbs.
Meal mixture, oats 1 part, barley 4 parts, or preferably if corn or oil cake can be procured: Oats 1 part, barley 3 parts, corn 3 parts; or oats 1 part, barley 3 parts, oil cake meal 2 parts; or best of all, oats 3 parts, barley 2 parts, oil cake 2 parts, corn 3 parts. Feed whatever steers will eat clean of meal mixture. Keep steers comfortably bedded and well watered, curry and brush daily if possible.

The introduction of 200 lbs. of bran into each of the meal mixtures above described would be of great advantage. Equally true is this for the first and second periods. Of course the same total amount of the meal mixture should be fed even if bran were added. This bran would not be an extra, but merely a concomitant.

If in addition to the bran it were possible to add, beginning with the third period, to the meal mixture suggested, results might be expected to be most satisfactory.—J. H. Grisdale, Agriculturist, C. E. F., Ottawa.

Our Veterinary Adviser

Skin Trouble

Since a yearling my three-year-old filly has been subject to some skin trouble. She breaks out with little pimples over her body. I feed International Stock Food.—G. W. C.

She appears to be predisposed to eczema. Purge her with drams of aloes and 2 drams of ginger. Follow up with 1 oz. Fowler's solution of arsenic, twice daily every alternate week for six weeks. Dress the affected parts once daily five per cent solution of Zenolium. Rub well after dressing or clothe well and keep in comfortable stall excluded from draughts.

Common Ailments in Cattle

In an address on the "Cause, Prevention and Treatment of Common Ailments in Cattle," given at the Windsor, Michigan, by Dr. H. G. Reed, of that town, attention was particularly drawn to "Milk Fever," "Constipation," "Indigestion," and "Indigestion."

MILK FEVER

The best cow in a herd is usually the one that is attacked by milk fever. But a careful dairyman need never have any fear if he observes a few precautions in feed. A cow should not receive any corn or peas or other stimulating food for

two weeks previous to calving nor should she be fed much stimulating food for a week after calving. A ration consisting monthly of succulent food such as silage and clover is preferable. One important precaution is, never completely empty the cow's udder until the danger of fever is past.

The administration of medicine to a cow afflicted with Milk Fever is exceedingly dangerous because the cow is in a state of paralysis and cannot swallow. Consequently there is danger of choking or of congestion of the lungs resulting from the entrance of medicine into the wind-pipe. Veterinarians simply empty the four quarters of the udder and then fill them with oxygen. Air injected with a bicycle pump has been used but deaths have resulted because of the germs present in the air.

INDIGESTION

"Indigestion," the doctor explained affects for the most part only the first stomach or paunch and the third stomach or rumen. In cases of severe bloating where there is no time to secure a surgeon, it is wise and safe to puncture, even with an ordinary knife. When food becomes compacted in the paunch a good purgative consisting of two pounds of epsom salts with a little ginger is generally sufficient if given in time. Sometimes an operation is necessary to remove the food.

Compaction of the rumen is dangerous. The first symptom is disinclination to eat and then all food should be kept from the animal for a few weeks and purgatives given. In severe cases the compacted food is noticeable but no operation can be performed and medicinal treatment is difficult. However, the careful feeder will never have a case of this trouble.—H. C. D.

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See our Big 4 on back cover.

HORTICULTURE

A Course in Horticulture

In the short course in horticulture that is offered by the Ontario Agricultural College, Guelph, an excellent opportunity is afforded farmers and their sons for gaining a greater knowledge of fruit growing and kindred pursuits. This course should be welcomed by all persons interested in horticulture, who have not the time to undertake a regular course of study at the college. The course begins on January 26th and ends on February 6th. There is no expense other than railway fares and board. Even these may be eliminated if advantage is taken of the offer to be found in the advertising section of this page of The Canadian Dairyman and Farming World.

As to matter how well experienced a person is in the matter of growing fruits, vegetables, or ornamental plants, he can get much valuable information at this course. Practical pointers are given on planting, cultivating, fertilizing, pruning, spraying, and so forth. Make it a point to attend the course this winter and you will be pleased and benefited.

The New York Apple Canker*

Prof. W. Lockhead, Macdonald College

From many sections of the country come alarming reports of the effects of canker on apple trees. An examination of some of the orchards reveals the presence of the New York Apple Tree Canker. The cause of this canker is a "black" or fungus which is commonly found on apples. Professor Paddock of the New York Experiment Station, Geneva, demonstrated satisfactorily by inoculation experiments that the Black Rot fungus is the cause of the cankers so common on the branches of the trees. The first effect of the canker, after the infection occurs in the spring, is a discolored area of outer bark. These areas soon enlarge, and sometimes encircle the branches. The inner bark is killed, and there is noticeable a definite boundary to the diseased area. After the disease has made considerable headway, the bark looses and peels off, exposing the bare wood. Of course when apple girdling occurs, the portion of the branch beyond the canker dies. Professor Paddock believes that the fungus effects an entrance through wounds or cracks. It is very probable also that inoculation occurs very frequently through the agency of sucking insects, as I have frequently observed the infection to begin from punctures in the bark, which were probably made by sucking insects. Professors Barrett and Stewart of Geneva, have very cleverly shown that the Snowy Tree-Creeper (*occathus niveus*) may be the unconscious agent of inoculation of twigs by canker.

New York Apple Tree Canker is found more frequently on the larger limbs of well-grown trees than on the smaller and younger limbs of young trees. Moreover, thrifty trees are more resistant than weak and neglected ones. On the bark killed by this canker spore bodies termed pycnidia, are frequently observed in autumn and winter. The mycelium of germinating spores from these pycnidia cannot effect an entrance to the cambium through the living tissue, but can find an entrance through wounds. Paddock believes that in some cases the mycelium may enter over winter in the bark, for he cannot otherwise account for the formation of the largest cankers. Paddock rec-

ommends in the line of prevention of canker, that trees should not be pruned, and that they be pruned so as to admit sunshine and air.

To sun-scald and sun-burn were previously ascribed such injuries to twigs. It is very likely, however, that the injuries due to sun-scald have been exaggerated, although it is undoubtedly true that trees suffer from this cause to some extent. The sun-scald areas are usually of quite a character. They run longitudinally, and are usually found on the south and south-west sides of the limbs.

The treatment which has been recommended for the control of this canker is:

(1) To collect and destroy diseased fruit, which usually accumulates on the trees in orchards. These, however, are the spores of the Black Rot fungus, by means of which the cankers are inoculated in the spring. The destruction of such diseased fruits will greatly diminish the liability of infection.

(2) To scrape the cankered areas on the limbs and to paint these areas with disinfectant, such as copper sulphate, and to coat it with tar or paint.

(3) To cut off the smaller cankered branches wherever possible, and to burn them.

(4) To spray with Bordeaux mixture.

Observation in New York has shown fairly conclusively that cankers are most abundant in those orchards that are not sprayed with Bordeaux. Applications of Bordeaux made year after year appear to have a cumulative effect in keeping down all kinds of fungous diseases.

Cultivation of Orchards

"The Cultivation of Orchards in Quebec and Eastern Ontario," was the subject of a practical address by Mr. Harold Jones, of Matilda, Quebec, before the convention of the Quebec Pomological Society. The speaker stated that in most sections of the country cultivated orchards are the most profitable. This is the verdict of fruit buyers. Orchards in soil do not bear as much fruit as those under cultivation, but they suffer less from injury from cold and freezing. Mr. Jones observed that the method adopted in his own orchards. He cultivates in spring and early summer and sows a cover crop of red clover or oats about the first of June. During the summer months, these crops do not take as much moisture from the soil as the sun and wind would were the ground left bare. When oats are sown, they are kept out constantly so as to keep the growth green all the season. In respect to the causes of root-killing, Mr. Jones stated his theory to be that the cambium layer of the wood or the growing tissue is squeezed by the action of frost in the ground. He believed that injury is not caused directly by freezing. If this squeezing is caused three times by alternate thawing and freezing, the roots become killed.

"There are not enough young orchards set out," remarked Mr. Jones. "More of them should be found on our farms. The difficulty is that most men think that it takes too long to wait for a crop. Prepare the ground in the fall before a set of potatoes and have it well manured. The following spring, set out the trees and plant potatoes between them. Dig the potatoes in October. This will prevent danger of starting late growth, which

happens sometimes when the inter-crop is disturbed late in season. In place of growing a cover crop, apply manure at the rate of one load to eight or ten trees." The following year, Mr. Jones plows his orchard in the spring, levels and plants a low-growing variety of corn. He cultivates to the first of July, and then sows between the corn rows 10 or 12 pounds of red clover seed an acre. The third year, the clover is cut early and the after-growth is allowed to stand. The fourth year, the sod is plowed down and the soil cultivated.

An interesting discussion followed Mr. Jones' paper, during which, Mr. W. T. Mason, horticulturist of the Central Experimental Farm, Ottawa, said that the most important thing in respect to winter-killing is to have the wood of the trees perfectly ripened in autumn. When this is done they usually come through all right. "On account of the dry summer of 1908," said Mr. Mason, "there is not enough moisture in the trees and there may be some loss this winter. Trees must not go into winter too dry. Root-killing occurs most often in dry soils, and is due also to low temperatures." Mr. N. J. Jack, of Chateauguay Basin, pointed out that air drainage has something to do with root-killing. Trees in valleys and low places kill first. Respecting sod vs. clean cultivation, Mr. C. P. Newman of Lachine, Quebec, said that the color of Fameuse, McIntosh, Wealthy and Alexander is much injured by cultivation. As these varieties are sold large-

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POULTRY YARD

Did Breeding do it?

That there is something in the breeding of a flock of fowls was well demonstrated to an editorial representative of The Dairyman and Farming World recently by Professor W. R. Graham of the O. C. Professor Graham has a pen of 30 hens which he has been trap-netting. All of these chickens were hatched on March 15th last. They have all lived together from the day they were hatched, therefore the conditions have been the same for all.

Four pullets in this pen are from stock bred for egg production. The cock which sired these four was from a 300-egg hen. Another four came from Professor Graham's common stock, though it too has been bred and selected for a time with egg production in view and is by no means rubbish.

These pullets commenced to lay in August, the four best ones noted above, up till December 1st laid 230 eggs, their respective production being 74, 60, 55, and 41. The four common pullets produced 106 eggs in the same time. Their respective yields were 38, 30, 23, and 15. Thus we see that the best pallet of the common brooding produced less than the poorest one of the best breeding.

Professor Graham states that if breeding does not account for this difference in production it would be difficult to explain it. These hens may not keep up this same difference throughout the year, but their records are extremely interesting to any one trying for winter egg production.

The Maritime Winter Fair

Those who think there is a lack of good poultry in the Maritime Provinces should visit the Maritime Winter Fair held annually at Amherst, Nova Scotia. At this Fair held November 20th to December 3rd, was the best exhibit of pure bred poultry ever shown in the Maritime Provinces. They have there two main divisions—one containing the open classes of standard poultry, the other division taking in the utility classes. Mr. L. G. Jarvis, of Grimsby, Ont., judged the fancy classes, and his work was no easy matter.

First in utility classes are shown—first in pairs of cockerels and pullets, and in breeding pens, also a number of specials. The strongest class in the cockerels were the Barred Plymouth Rock which showed some ideal birds. Birds that were of utility type, that is they had the strong constitution and fairly blocky frame, also had coloring which would qualify them for the open class.

There seems to be no fault or two probably, creeping into the utility classes. First, the endeavor to get an exceedingly blocky bird is taking us away from the B type, and some exhibitors are of the impression that a utility bird must be large and coarse. I think these two faults will

be easily remedied. The exhibition makes a strong point of their utility class and they had an exhibit which was a credit.

The dressed poultry was not as large as some former years, but the quality was good. They have one feature in the dressed poultry exhibition which adds a great deal of local interest, and that is the "Judging Competition." A valuable prize is offered each year for competition, and all members of the Amherst Hospital Society are eligible to compete. Their task this time was to place the first, second and third award on three birds each of chickens, turkeys, geese and Ducks, giving reasons for their placings. The prize was a \$75.00 Silver Service and was won by Mrs. Bell of Amherst.—F. C. E.

When and How to Hatch

"When to Hatch and How to Hatch" were discussed by Mr. L. H. Baldwin, of Toronto, at the session on poultry at the Winter Fair, Guelph. "The hatch," he said, "must be early enough to have pullets laying in November. If the hatching is delayed one spring, it will be hard to secure broody hens the next spring early enough.

The incubator should be used more by farmers. They are very useful to start eggs when broody hens are lacking. The eggs can be partly incubated and then transferred to the hen, or they may be hatched and then transferred, as plenty of hens will have gone broody by the time hatching is completed."

Importance of Poultry Raising

The importance of the poultry business to each and every farmer of Ontario was emphasized by the Hon. J. S. Duff, Minister of Agriculture in an address before the poultrymen at the Winter Fair. "The demand for poultry," he said, "is increasing, and it is a business that apparently cannot be capitalized and conducted separately on a paying basis. It must be carried on as a side line by each farmer to be profitable.

"Farmers must be educated and made skillful in the business. As farmers are the backbone of the country, he did not know of any business that the government could spend the people's money on so profitably or with such authority, in providing education and other facilities.

White Wyandottes to the Front

Mr. W. H. Hope, of St. Lambert, Que., has a pen of White Wyandotte pullets that he thinks is doing pretty well. The record, below, that Mr. Hope was kind enough to let me have, shows a showing of 2,506 eggs in six months from 24 hens, means an average of about 104 eggs. Nine dozen eggs, at an average of 56c, would mean \$6.90 for the six months. Deducting 75c for feed, there would still be a profit of \$2.85. The small flock of 24 hens gave Mr. Hope an actual profit over cost of feed for the six winter months of the nest sum of \$68.40. Here is Mr. Hope's letter:

Prof. F. C. Elford, Macdonald College, Quebec.

Dear Sir—I beg to hand you here-with statements showing the record of twenty-four White Wyandotte pullets for six months ending May 31. Nine of the birds referred to were hatched on May 15, 1907, and fifteen were hatched on June 20, 1907. I obtained the eggs from a strain that has been renowned as layers for eight or nine years. The birds, and two cockerels, were housed in a well-built shed 12 feet by 10 feet. They had no artificial heat during the winter, but were roosted behind a curtain. They were given a morning meal consisting of bran, shelled mealie, and corn meal), and two grain feeds each day. Grain feed consisted of wheat, barley,

wheat corn, peas, oats and buckwheat. They were hopped fed by grit, charcoal, bran, and beef scraps. Green feed consisted of cabbage, carrots, beets, potato parings, apple parings, etc., which were given liberally nearly every day.

Eggs were obtained as follows:
 December 159 eggs.
 January 410 eggs.
 February 456 eggs.
 March 592 eggs.
 April 530 eggs.
 May 429 eggs.

Grand total 2,506

W. H. HOPE.

Chicks off-Color

Last spring I sent to a poultryman for eggs, paying him a high price for them. When they were hatched I noticed that nine of the chicks had black feathers, and two others were nearly brown, out of the thirty chicks which I hatched from a few settings. In such a case could a person demand a portion of the purchase money back, or is there any law to protect a purchaser from such a fraud?—E. S. B., Durham Co., Ont.

Persons who sell eggs for hatching, as a rule, desire to give satisfaction and are usually pleased to have a chance to ratify any mistake. I think the best plan is to write a friendly letter to the breeder stating your case. When he refuses to make amends that is time enough to try force. Chicks do not always come true to color; many pure bred eggs may hatch off-colored chicks. These will sometimes moult out and be among the best colored birds in the flock.

Persons who pay a good price for pure-bred eggs should get what they pay for and if there is any person in the poultry business who knowingly deceives, he should be punished.—F. C. E.

Floor for Poultry Houses.—Mr. C. E. Stevenson, of Lacelle, Que., gives the following plan for making a floor for the poultry house: Take 1 part of pitch to 3 parts of tar, heat and mix with dry gravel to a crumbly consistency, pound it down several inches deep. This makes a cheap floor and is not as cold as cement. It is rat proof and dry.

See our Big 4 ad. on back cover.

Helps for the Poultry Industry

The incubator has doubtless done more for the poultry industry than has any other single factor. "Raising chickens" was of little importance before this machine was invented, simply because "hen-hatched" chickens could not be matured early enough in the season to sell at a profit. However, the incubator now makes it possible for chicks to be well matured by the time most hens begin to show signs of broodiness.

Thus incubators have come into common use, and some few makes have established their right to the confidence of the public. Prominent in this class stand the "Excelsior" and "Wooden



Hen." The former or having been one of the earliest of the artificial hatching machines put on the market.

Both types are built upon practical lines, and have won the approval of thousands of poultrymen everywhere. They are made in sizes varying from 50 to 600 eggs, thus adapting themselves to poultry plants great and small.

"In 'Excelsior' and 'Wooden Hen' incubators the principles of heat, moisture and ventilation, so vital to the development of healthy chicks, have been perfectly worked out. Regulation of the heat, which may be supplied by kerosene, gas or electricity, is practically automatic, reducing to almost nothing the attention required to keep the machine going.

"Excelsior" and "Wooden Hen" Incubators and Brooders are illustrated and described in attractive catalogues and literature issued by the manufacturer, Geo. H. Stahl, Box 2215, Quincy, Ill., who will gladly mail same to any address upon request.

Hatch Chickens by Steam

Small incubator for 50 eggs. Hatchers send for literature. Well-built, reliable, practical—homemade in use. GEO. H. STAHL, Box 2215 Quincy, Ill.



A New and Useful Catalogue

The handsome new catalogue, the cover of which is shown in the illustration, was recently issued by the Frost & Wood Co., Limited. It is useful, not only because it gives a whole lot of valuable information about the particular merits of the Frost & Wood agricultural machinery, but because it shows the progress of improvement in machinery to which the farmer, and also deals in a very practical way with the various implements, what they are intended to do, and most important of all, the best directions from them. A good deal of illustrated matter is devoted to the manner in which agricultural operations are carried on at the O. C. Guelph, and the Experimental Farm, Ottawa, Macdonald College, Ste. Anne Bellevue, illustrating the various conditions relative to agriculture in Canada.

Such subjects as "Education in Relation to Successful Farming" are dealt with in a few little gems of literature, which, when read, will cling to the memory of who reads them, as we saw and how much?" is a short, pithy article which any farmer would do well to paste in the box of his seed drill, or nail to the wall, reminding him of the instructions for seeding to alfalfa. "What Wants Do," and "The Use of the Hoe Harrow," are concise, pointed, able and useful for the time.

Such a catalogue of a machinery catalogue, furnishing so much of such valuable information, marks a new departure in what it is a catalogue which the farmer should write for, and hang up, and keep when he gets it. It will be sent free to readers of The Canadian Dairyman and Farming World by addressing the Frost & Wood Co., Limited, Smith's Falls, Ont.

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

10c. The latest success.

Black Watch
 The big black plug chewing tobacco.

2268

The Canadian Dairyman AND Farming World

Published by The Rural Publishing Company Limited.



J. THE CANADIAN DAIRYMAN AND FARMING WORLD is published on Wednesday. It is the official organ of the Great Columbia, Manitoba, Eastern and Western Ontario, and Bedford District Quebec Dairy Farmers' Associations, and of the Canadian Holstein, Ayrshire and Jersey Cattle Breeders' Associations.

1. SUBSCRIPTION PRICE, \$10.00 a year, strictly in advance. Great Britain, \$15.00 a year. For all countries, except Canada and Great Britain, add 50c. for postage. A year's subscription free for a club of two new subscribers.

2. REMITTANCES should be made by Post Office or Money Order, or Registered Letter. Postage stamps accepted for amounts less than \$10. On all checks add 25 cents for exchange fee required at the bank.

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

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

5. 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 8,000. The actual circulation of each issue, including copies of the paper sent subscribers who are but slightly in arrears, and extra copies, varies from 8,000 copies (never being less than that) to 10,000 copies. Subscriptions unless renewed, are discontinued as they expire. No subscriptions are accepted at less than the published subscription rates. That our mailing lists do not contain any dead circulation, is more fully detailed in statements of the circulation of the paper, showing its distribution by countries and provinces, will be made first on request.

OUR PROTECTIVE POLICY

We want the readers of The Canadian Dairyman and Farming World to feel that our assurance of our advertisers' reliability. We do not admit to our company only the most reliable advertisers. Should any subscriber have cause to complain, we will investigate the treatment he receives from any of our advertisers, we will investigate the circumstances fully. Should we find reason to believe that any of our advertisers are unreliable, even in the slightest degree, we will discontinue immediately the publication of their advertisements. Should the circumstances warrant, we will expose them through the columns of the paper. Thus we will not only protect our readers, but our reputable advertisers as well. All that is necessary to entitle you to the benefits of this Protective Policy is that you include in all your letters to advertisers the words, "I saw your ad. in The Canadian Dairyman and Farming World." Complaints should be sent to us as soon as possible after reason for dissatisfaction has been noted.

THE CANADIAN DAIRYMAN AND FARMING WORLD
PETERBORO, ONT.

TORONTO OFFICE.

Room 306 Manning Chambers, 72 Queen St. West, Toronto.

CHRISTMAS GREETINGS

Yuletide, the happiest and holiest of all seasons, is again upon us. Hence it is the advent of God's greatest and best gift to man, it is most that the season should be one of rejoicing, of good will and the making of gifts. We wish for all a glad and joyous Christmas.

Christmas giving and receiving, when practised with discretion and discrimination, is not to be belittled. To the young especially, the time of Christmas cheer is one never to be forgotten; to the older folk, it is a time of happy hearts and of forgetting self, a time of home-coming and of renewed associations. Sordid, indeed, is the one who would not welcome Christmas.

As for ourselves, we feel that the time is opportune for us to express

our great appreciation of the good-will and support of our readers. May many returns of this bright and festive season, which commemorates the birth of Christ, be yours.

TOO MANY VARIETIES

Few realize the value of the potato crop in Ontario. According to Prof. C. A. Zavitz, of the Ontario Agricultural College, the estimated value of the potato crop for Ontario the past year is \$12,000,000. From what we hear of the indifferent quality of Ontario potatoes and the praise which is always handed out to this crop as grown in the Maritime provinces, we would conclude that Ontario potatoes count for little in our markets.

Why is it that Ontario potatoes have been side-tracked, so to speak, while those of the Maritime provinces are so widely advertised as being more desirable? A census by counties, taken by Professor Zavitz, through the experimenters connected with the Experimental Union, of the leading varieties grown in different parts of Ontario, brought out the startling fact that 90 different varieties were considered the best and, therefore, were grown extensively in their respective districts.

This fact gives us the key to the potato situation in Ontario. If 90 different varieties are grown extensively over Ontario, we cannot hope to put potatoes of a uniform grade on the market in train-lodges or even in carlots. Farmers down by the sea have recognized the importance of all growing the same varieties. In this way, they are enabled to fill large orders and have them uniform throughout. The lesson for Ontario farmers is obvious. We must focus our attention on a few of the best and grow them only.

SYSTEMATIC EFFORT NECESSARY

Who is the man most interested in whether or not "cows pay?" Naturally the man who keeps them. He who feeds and milks them, he who attends to their wants twice a day for 365 days each year, he who is both their master and their servant. Yet, in such close touch as he is with them, frequently he overlooks, as has been done many a time, either on the one hand the extra good cow, or on the other, the cow whose profit is to be marked with a minus sign.

There is one excellent way of determining without the shadow of a doubt just what each cow is earning. By the simple method of weighing and sampling milk recommended by the dairy division, Ottawa, no dairy farmer need be in doubt as to the net profit earned by any cow in his herd. Why do we not have more cows in Canada giving 10,000 or even 15,000 pounds of milk, instead of mounding along with so many "average" cows that cannot give more than 3,000 or 4,000 pounds? It is not because farmers would not pay the price necessary to secure them, but it is because no systematic effort has been made to discover the best cows at present here, and breed them in the best way, or to develop those present good attainments.

United effort, co-operative effort, means millions of dollars extra to the country in increased milk yields. The cow-testing associations cannot be developed and extended any too rapidly. Their aim is definite, logical and eminently practical, and as such should appeal to every dairyman in the land.

A CREDITABLE PRODUCTION

The farmers of Canada, as well as the publishers, may well feel proud of the Christmas issue of the Farmers' Advocate of London, Ont. The high standard that had been attained by previous Christmas issues, has been fully maintained this year. Excepting possibly only the Breeders' Gazette of Chicago, no other agricultural publication on the continent issues finer Christmas numbers than the Farmers' Advocate.

This year, the leading contributors are men who are well known from one end of Canada to the other, including Dr. B. E. Fernow, the Dean of the Faculty of Forestry of the University of Toronto; President G. C. Creelman, of the Guelph Agricultural College; Mr. J. H. Grisdale, the Dominion Agriculturist of the Central Experimental Farm, Ottawa; Principal M. Cumming, of the Nova Scotia School of Agriculture, and a number of others. The front cover illustration, printed in colors, is a work of art. It is a pleasure to us to be able to extend congratulations to the publishers over this fine issue.

THE VALUE OF CO-OPERATION

Co-operation, what it means and its value to farmers, was brought out in a striking manner in a discussion at the annual meeting of the Ontario Agricultural and Experimental Union recently held in Guelph. The case of the bean producers organizing in Kent County, where, on a paid-up capital of some \$14,000, they realized in five years \$120,000 more than they would have received had they been unorganized, should start many to thinking out plans which will ultimately crystallize in some form of tangible co-operation, whereby they can sell their produce to the best advantage.

All admit that co-operation has done much for the dairy industry. It has been the very foundation upon which our great cheese industry has been built up to its present status. Co-operation has done much for the fruit growers of Norfolk County, proof of which was the splendid exhibit made at the recent horticultural exhibition in Toronto. Co-operation has done even more for the fruit growers of the Niagara District.

The same principle can be applied equally as well and with telling effect in other lines of agricultural endeavor. Why not extend co-operation to other branches since it has done so much for the fruit and dairy industry. By organizing and by working together in a co-operative way, both in buying and in selling, we can eliminate the profits of the middlemen, produce better crops in larger quantities, get the best price for all that we have to sell and, in doing so, put the farm-

er's calling on a higher plane, where it will be even more attractive and profitable than it now is.

UNDESIRABLE ADVERTISING

Since we announced our intention to exclude all forms of undesirable advertising from the advertising columns of The Canadian Dairyman and Farming World, our stand has been commended in many quarters. The following expression of opinion has been received from one of our readers and is an indication of how the position we have taken is appreciated.

"You are doing well to keep patent medicine, liquor and similar advertisements out of The Canadian Dairyman and Farming World. The patent medicine business is one of the biggest humbugs the country has. Your management deserves credit for not wanting to have your subscribers 'fleece' by them."—Chas. W. Ross, Renfrew Co., Ont.

During the present year, we have refused to accept hundreds of dollars' worth of liquor, tobacco, patent medicine and other forms of undesirable advertising. While we carry one small tobacco advertisement, it is being published with regret on our part and will be discontinued as soon as the present advertising contract expires. The contract was accepted before the present management of this paper assumed control. If the public would stop subscribing for papers that carry questionable advertisements there soon would be very few such advertisements published.

While we did not take our stand on this question with any special desire to please our readers, it is none the less gratifying to us to know that our subscribers appreciate the fact that the advertisements carried in this paper are reliable. We mean every word of the protective policy published in the first column of this page.

Agriculture in Canada!

(The Toronto News)

As Mr. Creelman points out, Canadians have not yet really begun to farm their lands. They do not know what intensive farming is. In too many cases they plow the land and put nothing back. Consequently the fertility of the soil falls off. In Europe fields that have grown crops for a thousand years still fertile. But over there they do things thoroughly. The most successful agriculturist is the man who possesses a little land, and devotes his life to keeping it up and making every foot do its very best work. The Grimsby district in Ontario is an example of what intensive fruit farming will do for a community. There land sells at \$1,000 an acre.

The President of the Bank of Montreal has drawn attention to the importance of improving our agricultural methods. The soil of Canada annually yields upwards of four hundred millions of dollars, and any percentage increase in the quantity or improvement in the quality of the crop is of great significance to the country. If by seed selection the wheat plant can be made to increase its yield or shorten its period of ripening, the nation as a whole must benefit. The experimental work being carried on at the Ontario Agricultural College and by Sir William B. Peckham, the man's is fraught with vast import to the future of the Dominion.

Everybody Pleased

What is a better advertisement for a merchant or dealer of any kind, than a pleased customer? What is better for a publisher of a paper or magazine, than a pleased reader? We feel that a reader of The Canadian Dairyman and Farming World who has been well pleased with his paper, and his connections with its management, is the best kind of an advertisement that we can possibly secure. Our popular live stock offer, for the securing of new subscribers, has been the means of bringing us in close touch with many pleased readers of our paper. Many also have been benefited by winning some of our offers.

ONE OF MANY

From Mr. E. J. Duff, of Northumberland Co. who has ever been one of our earnest workers, we have recently received the following letter: "Those calves and pigs I received as premiums for securing new subscribers for The Canadian Dairyman and Farming World turned out fine, especially the bull calf, which was sent me from Mr. Arthur Kelley, of Oxford County, Ont. The calf won first prize at Nora od, Warkworth, and Campbellford, and also a diploma at Norwich. He has never taken a sick day. He weighed 110 pounds at one year and nine months. I think my time was well spent, and the people who paid for the Canadian Dairyman and Farming World spent it well also. No farmer can afford to be without your paper for \$1 a year. I have often sent recipes in it that were worth double the money. I send you two new names to-day and \$2 to pay for their subscriptions for one year."

Notes from Saskatchewan

Ed. The Dairyman and Farming World.—The general average of crops for the province is very good, although in some districts the results were poor. The total yield is far greater than ever before. In 1908 the summer crop, the total grain produced amounted to 63,767,250 bus. Last year it aggregated 53,767,250 bus. This year it is estimated at 80,467,785 bus. The average per acre is not so large as in some years, but is good considering the conditions of weather during the latter half of the growing season.

The following figures show the acreage and yield of the four principal crops, as estimated by the Department of Agriculture of Saskatchewan:

Wheat—2,374,068 acres, 43,530,608 bus.; average per acre 18.34 bus.
Oats—1,170,452 acres, 41,663,005 bus.; average per acre 35.58 bus.
Barley—1,011,433 acres, 2,636,113 bus.; average per acre 26.07 bus.
Flax—141,451 acres, 1,570,000 bus.; average per acre 11.10 bus.

The actual figures are obtained from threshers' reports, and usually substantiate the estimates. The facilities for moving the crop were more than ever inadequate this season. The wheat blockade at an early date threatened to become worse than ever before. At Indian Head, one of the largest receiving points, the elevators, which number 11, were filled early in the season. At the smaller way stations not more than five per cent of the cars ordered by elevator companies and farmers have been received. During the first week in October, the Regina to Brandon section of the N. R. begins to haul grain. This relieved the congestion over the northern routes. The G. T. P. are preparing to take a grand slice of the crop from the C. P. K. points where the two roads meet, the C. P. R. are careful to furnish plenty of cars. At Asquith, where the G. T. R. station has recently been completed, the elevators are nearly empty and many of the farmers have obtained cars. Next year, when the new road will be in operation, little trouble is apprehended.

The following are the actual yields, as taken from threshers' accounts, of the fields in a typical grain-growing township (36 square miles), Township 15, in Range 22, West of Second Firm Meridian, located about 12 miles west of Regina, in a good district:

Wheat—Summer fallow and breaking, 3,820 acres, yield 77 080 bus., average per acre 20.17 bus.; sown on stubble, 3,283 acres, yield 43,875 bus., average per acre 13.48 bus.; fall and spring plowing, 310 acres, yield 3,050 bus., average per acre 9.84 bus.; total 7,383 acres, yield 124,055 bus., average per acre 16.70 bus.

Oats—Summer fallow 119 acres, yield 6,060 bus., average per acre 42.70 bus.; stubble 1,242 acres, yield 30,331 bus., average per acre 24.42 bus.; spring and fall plowing 681 acres, yield 16,313 bus., average per acre 23.95 bus.; total 2,042 acres, yield 51,724 bus., average per acre 24.83 bus.

Sugar Beets—6 acres, 3,465 bus., average per acre 577.50 bus.

Turkies—3½ acres, 3,550 bus., average per acre 417.64 bus.

Potatoes—15½ acres, 2,104 bus., average per acre 136.76 bus.

Barley—214 acres, 3,547 bus., average per acre 16.57 bus.

Flax—15 acres, 150 bus., average per acre 10 bus.

Hay—797 acres, 776 tons, average per acre .97 ton.

S. J. Neville, Regina District, Sask.

Creamery Department

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

Why Creamery Men Should Attend a Dairy School *

Mr. Fred Dean, Creamery Instructor

For over fifteen years the creamery men of Ontario have had the privilege of attending a dairy school. A large majority have taken advantage of this privilege, and for good reasons. One who was anxious to improve and better himself in the art of butter-making, who felt that his time and money thus spent had been wasted, but on the contrary acknowledged that he had been well repaid.

A maker may have spent years working in a creamery, and have the satisfaction of believing that he is doing things about right, but when the scientific and general knowledge of those whom he comes in contact with at the dairy school is applied, these things are shown to him in a different light. Better men are needed and being asked for in the most of our dairies by proprietors and companies, who are willing to pay a good increase in salary if the right men are produced and can prove their training to be of any value. The maker must prove himself to be a good judge of milk, cream, butter and human nature; have the ability to make water-tight seams in the cans, the patrons and haulers. He must also have business ability and such knowledge of the technical side of the creamery-business as to be able to adjust as to losses and leaks.

There are a good many makers who have had enough experience and are good men, but lack that all round training that is given them in a dairy school. With this training they could command the extra wages in one season that would pay all the expense that they would be any besides making it more remunerative for the patrons and proprietor. Makers, to-day, who wish to be successful and keep up with the times must have a scientific and theoretical, as well as a good practical knowledge of dairying. By having these he will be able to understand and explain the different terms used by scientists, the

*A paper read at the creamery meeting at Quilich, Dec. 3, 1908.



GIVING AND TAKING

THE DE LAVAL CREAM SEPARATORS

Give satisfaction all year round, and
take away dairy drudgery and all the
butter fat from the milk

Catalogue Free

THE DE LAVAL SEPARATOR CO.

173-177 William St.
MONTREAL

methods employed in controlling germ life, be able to do his work with a pleasure, instead of with thought of drudgery; will visit his patrons and demonstrate to them the best way to care for separators, utensils, and how to keep the cream cool and clean flavored, this being the only way to growth of bacteria under the present system of butter-making.

FOR EXPERIENCED MAKERS

The question is often asked, what would we learn or what is taught at the dairy school that would benefit experienced makers? In the first place the study of bacteriology will be of great benefit to the maker. It will help him to understand a good many things which were as darkness to the whys and wherefores in his daily work, and show the importance of growth of bacteria. The life and germ life in dairying. The life and germ life is shown what they are, their relation to the quality of milk, cream and butter, how they control fermentation, and the ways of propagating the different varieties from various sources. In dairy chemistry the student at the dairy school is taught the composition of, and how to analyse milk, cream, butter, etc., how to detect adulteration of dairy products, the importance of and how to know pure water, the analysis of salt, and most important of all, he gets a training of the mind in knowing the how and wherefore of dairy operations.

In testing of milk, and more especially cream, the proper care of the composite samples, the quality, kind and quantity of preservative used, is one of the weak points in creamery operations to-day and yet the most important. By experimenting at the dairy school with the different preservatives and methods used in keeping the samples and in ways of testing,

the student is soon convinced which is the right or wrong way. Comparisons are made between weighing nine and 18 grams, and the 18 C. U. pipette for testing cream; samples are tested every day, every week, twice a month and once a month, the use of light corks, loose ones, and no corks at all on composite bottles is shown. Samples of cream and skim milk are taken from the hand separator, running at different speeds, skimming at different temperature, using no water in bowl at the beginning, and using the right amount, flushing the bowl with water or skim-milk at the finish and not using any, etc. In this way the maker can secure data to show his patrons why their tests varied under similar circumstances, and also why the creamery does not pay for fat fed to the pigs and calves.

To Butter-makers—and all who buy salt in large quantities,

its cost is no inconsiderable item.

Windsor Salt

goes farther—and does better work. Its cost is really less

—and it makes the butter worth more. Ask your grocer.

Everyone is supposed to know how to make butter. The cheesemaker who has not made a success of making cheese thinks there is nothing to learn about making butter. The farmer who has tired of farming, tries his hand at this easy money-making business, as well as other men of different callings. This is one of the reasons why we are not making the advancement we should.

Like the poet, the butter-maker to be successful must have a liking for it and be born for his business. In the butter-room of the dairy school, churning and washing of the cream and butter are carried on under different methods and temperatures, different sizes of granules are formed to see the effect on grain and moisture, different revolutions are given in working the butter for the same reason as well as to see the effect on the color and salt. The determining and testing of each churning for moisture content, ripening the cream at different acidities, using pasteurized and unpasteurized cream to test, keeping quality and flavor of the butter, and the use and abuse of cultures, and methods in handling cream gathered cream are taken up. In the lecture and discussion room, subjects of a very interesting nature are brought before the student, such as the growing of crops, the selection, selecting and breeding of dairy cows, construction of barns, stables, silos, ice-

houses, refrigerators, factory buildings, doors, drainage and factory appliances. The market and business end of dairying, how to conduct a successful creamery, how to prevent and cure the common diseases of animals, the care of milk, cream and utensils on the farm as well as in the factory, the scoring of the cream every week and discussing their qualities, how they were produced, their weak points, and how to overcome them, the good points and how to maintain them, are also fully discussed.

EFFICIENCY IN LITTLE THINGS

Then in the machine shop, the student is shown how he can save many dollars, as well as pounds of steam, coal and milk or cream, by learning how to handle tools, solder vats and tinware, do plumbing and pipe-fitting, fixing pounding engines, and fire a boiler in the most economical way.

The reputation of the school always depends upon the class and kind of students sent out from it. Some spend a few days or a few weeks, while others stay for the winter, and sometimes two or three terms, yet they will claim to be dairy school students. Those who take the full term, are the ones who get the full benefit, providing they make up their minds while there to get all the knowledge possible to take back to the patrons and factories. To do this, nothing will help in the future, but like taking an active part in the literary society which is held every week in connection with the school. Here they are given a chance to preside at meetings, take part in the discussion of the question of the day, and develop their other talents in general.

Official Referee at Montreal

Jos. Burgess, Official Referee, Montreal

Part of the cheese and butter made in Eastern Ontario and Quebec is bought subject to Montreal inspection. If the quality of any lot is objected to by the buyer, on his request and on the order of the referee, a testman of the factory, the Referee examines and grades the lot according to his ideas of the quality, having in view the quality of the grading cheese and butter which were adopted at a conference between Mr. J. A. Ruddick, Dairy Commissioner, Mr. G. G. Publow, Chief Dairy Instructor, and the Montreal Produce Merchant's Association. There is considerably more cheese to examine than butter, but as you are not particularly interested in cheese today, I will refer to the butter only.

Forty lots were examined, containing 1540 packages. I found 32 per cent. first grade and 68 per cent. second grade butter. In the first grade, the second grade butter were in the flavor and color. Nearly 90 per cent. of the lots had one or more churning "not clean." 40 per cent. contained packages either of watered butter, irregular in color; 19 per cent. were not finished neatly; and a few lots had mould on the parchment paper.

Now the system of inspection in the warehouses is to select from five to ten packages from a shipment and judge the quality of the whole lot from these samples. The inspector cannot tell whether he has a representative sample or not, and the system does not seem to be fair either to the buyer or the seller. Many lots, no doubt, are passed which contain some packages up to the standard, while on the other hand, whole shipments are turned down or objected to where only one or two churning are not right.

Last year Mr. Barr advocated very strongly that the packages from each churning of butter should be numbered; then one could see a sample of

*An address delivered two weeks ago at the Creamery Meeting at the O. A. C. Quebec.

the whole make and if the percentage of faulty packages was not too great, these could be picked out and the cut in price made only on those of inferior quality.

I followed up this good work started by Mr. Barr and wrote to a great many of the creamery men to do this, but I only found 15 per cent. of the lots, or 32 per cent. of the total packages numbered. Now, 70 per cent. of these and only 12 per cent. of the unnumbered packages were classed as first grade. These figures should be fairly convincing that numbering the packages is a great advantage and that it rests with the butter-makers to put the system of inspection on a more satisfactory basis.

Cheese Department

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

Some Nice Factories

Several neat and well managed factories, owned by Mr. A. Campbell, and situated in Dundas and Russell counties, were visited recently by a representative of The Canadian Dairyman and Farming World. White Globe factory, No. 1, in Ormond, which is managed by Mr. R. J. McLaughlin, assisted by Mrs. McLaughlin, like all the rest, was found in a neat, sanitary condition. There are two whey vats situated beside the factory. Both were in excellent condition. The weigh stand was so constructed that milk could be taken in at two places at the same time. There was one platform with a double crane capacity, which crane served two large vats. This factory had 33 patrons. Ten years ago, part of the factory was turned into a creamery. The creamery was operated for only two or three years and has never been used since.

The maker in White Globe factory, No. 4, was Mr. H. O. Day. This is his first year in this factory. The building was painted red. The factory had 20 patrons, whose average production of milk was large. Some months the patrons averaged \$80 each for their milk. The cheese in the factory had a very nice finish. White Globe factory, No. 2, was in charge of Mr. J. A. Cramer, who has made in this factory for five years. Mr. Cramer was reported to be a winner of the best makers in the section. The whey was pumped up by a windmill.

Screens were found on all of the windrows, keeping out the flies. The factory was painted a nice lead color, both inside and out. There were four vats.

Two other factories were visited. In E. W. factory, No. 27, at Golden Valley, a young maker, Mr. W. H. Appleby, of Vernon, was in charge. This factory had only 14 patrons and was rather cheaply constructed, but was neat and clean. It was painted red.

King factory is owned by a joint stock company. The maker was Mr. W. Broad, who was handling the milk of 18 patrons. Mrs. Broad gave her husband some assistance in this work. The factory was painted a nice grey and was in very fair condition.

Most of the factories, at the time of our visit, had two or three weeks' supply of cheese on hand. All of them were in thoroughly good sanitary condition. In the factories owned by Mr. Campbell, of Ormond, most of the makers spoke highly of Mr. Campbell's willingness to give them every assistance in turning out a high grade product.

Would Improve Quality

Ed. The Dairyman and Farming World—I am a maker of seven years standing, but do not think I receive large enough salary for the experience I have had. I do not think a maker should be allowed to take a factory till he has had five years' experience. I would be in favour of experienced makers holding certificates as it would prevent inexperienced men getting the same salary and there would be better cheese made.—Geo. Rathburn, Glenora, Ont.

The Annual Convention of the Eastern Ontario Dairymen's Association, will be held in the town of Prescott, Wednesday, Thursday and Friday, January the 6th, 7th, 8th, 1909. The program which has just come to hand, gives promise of a convention even more interesting and instructive than those in the past. The first day will be devoted to cheese and butter makers. Such well known authorities as: E. Governor Hoard; G. G. James, M. A.; The Honorable Sydney Fisher; G. C. Creelman; George Barry; G. G. Publow; J. A. Ruddick Dairy Commissioner; Dr. W. T. Connor, Bacteriologist, Kingston Dairy School; Frank Herges; Prof. J. H. Grisdale; Joseph Burgess, and others are slated to address the meetings. All who have any interest in dairying, if possible, should attend this convention.

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Jan. 6th, 7th and 8th, 1909

Do not forget the dates. There will be something worth hearing all the time. It will pay you to attend

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OUR FARM HOMES

The Domestic Adventures

By Joshua Duskam Bacon
(Continued from last week)

"Well, that's the first time I ever heard my complaints of a young one for being 'too well behaved!' she said good-naturedly. "But it's always so with single ladies; they're forever workin' themselves up over the young one more than those that have 'em! Haven't you noticed it?"

I have never been able to decide whether May was as ingenious as she looked or whether these remarks were part of a deep-laid plan to keep me out of her way. In the latter case she certainly succeeded; how I used to long to be married—or to have been married—so that I could have had some basis on which to meet her statements!

Take the matter of Solly, for instance. It could not have been wise to allow a child of his age to eat crackers and fruit continually, as Mr. Van Ness put it—very satisfactorily, I thought—the most elementary knowledge of the construction and capacity of the human stomach refutes all the pretensions of matrimony as such, no matter how thoroughly or frequently experienced.

It was the effort of my life, at that time, to keep Solly and Mr. Van Ness apart, and so, somewhat naturally, I suppose, I got to connect them hopelessly in my mind—I do to this day, though I suppose no two persons on the face of the earth were ever more unlike.

Mr. Van Ness has been taking Chloe out in the country on long drives a great deal of late, and we are beginning to feel that he may be the one, after all. I remember now that we often spoke of it, Sabina and I, when he met Chloe a year ago. He had come to see Sabina with his sister, a society woman, who wanted to have some articles written about a pet charity of hers; it was a boarding house for neglected birds, or something like that, and she hoped the magazine would take the matter up.

He looked like some illustration for a modern story; I had no idea any one's clothes could fit so well outside the tailors' pictures. His hair is very striking and he is just a little portly, as a successful broker ought to be; Sabina says; Chloe was much impressed by him. We decided that the impression was mutual, when, after hearing that Chloe was almost always with us on Friday evenings, he appeared on the very next Friday with an invitation for Sabina to come to luncheon at his sister's and meet some influential women about the neglected birds' boarding house. Sabina is not given to match-making for Chloe, but she admitted that everything considered, especially the United States mail facilities, it was rather marked up.

He even turned up at his sister's after the luncheon, which was very mixed and expensive and amusing, and asked Sabina if her vivacious young friend was well; and after Sabina had assured him of the state of Chloe's health, which is always perfect, she decided that she least of all could do was to ask him to call—

Miss Mason's is no place to invite any one to visit, except on business. So he has been coming off and on

since then, and Chloe has always been very charming, but nothing seems to have come of it. Of course, he is too old for her, for he must be fifty, and that is nearly twice her age, but in Chloe's case there is a great deal to be considered. She has been so much with very wealthy people that her tastes and habits have grown frightfully expensive; and then she has always been petted so much that even young people indulge her and treat her just as Mr. Van Ness does, so I really doubt if she sees much difference between his age and Mr. Ogden's.

He was very much entertained by my efforts to drive Solly outdoors to play—I simply could not go about my business, feeling that somewhere above my head that soiled and silent little boy was sitting eating, eating steadily, in one fixed place—and at the same time keep him from the sight of chance callers in the afternoon. And though he concealed it perfectly, in what Chloe calls his graven-image manner, I am sure he

event of the luncheon to which he was invited, together with the Stuyvesants. Chloe thought we had better entertain them at one time, and though I did not think so, Sabina pointed out that she probably wanted to show him to Anna and Satterlee; and when I remembered that it would only be a question of a few more mushrooms, and strawberries may be used to make the most delicious fruit ice cream imaginable—and then they would both be off our minds, I agreed. He had Mamma's suit to go to; and though May was terribly procrastinating and used to leave everything till the very last minute, and then do the things in the unideal fashion possible, advising me not to worry, because a married woman with experience was not likely to be rattled, as she put it, by having to hurry a little, she really knew how to cook and used to bring good results out of all her heart-breaking disorder. So I wasn't too bothered over the dinner, particularly as it was the expense of things that May did best; she never took much interest in what Chloe describes as our quiet and retreating dishes.

"Since you're all gone for luncheon I'll scramble you a couple of eggs," she used to say to me. "A lady, as you're placed, don't care for much at noon when she's alone, 'u'ally."

Now, I happen to have a reasonably good appetite, and I suppose I might have been allowed to gratify it if I had been married; as it was, I used to accept the eggs and practise scathing remarks to myself.

But May was far too hospitable and too frankly interested in Mr. Van Ness to wish to avoid any painstaking on his account, and an conviction that it was wiser in order to avoid herself on some soft-shelled crabs for him that she asked me to attend to the marketing for her, and snuggled up to me, as usual, when it was his day for the nursery, and Sabina was in the house, a combination of circumstances which I had vowed should never find him on the premises. As a matter of fact, the annoyances I had foreseen had never occurred, so far as Solly was concerned, and beyond advising me to let him alone, Sabina had never mentioned him.

Now, by failing to take him with her when she went to the village, May lost her opportunity to carry Solly to the nursery, and I forgive her completely. Anybody would have Sabina maintains that no one who encountered him as she did could ever forget him, no matter how preoccupied the night afterward was; but then, few people would be likely to encounter Solly as she did. For Sabina, sweeping into her luncheon—our dining chairs are enormous; Mrs. Stuyvesant got them for her country house and didn't like them—sat down with great dignity upon Solly, who for some inexplicable reason had fallen asleep there.

I have never known Sabina to be so unstrung but once, when the ceiling of the hall room above us fell down and the water poured over her. But terrible and unexpected as that catastrophe was, she says it was on the whole less distressing to her nervous tissue than the one I have just mentioned. She shrieked and turned perfectly white, and her claims fell into her lap. Everybody rushed to her, and she started up, positively trembling with horror.

"What—what—oh, tell me!" she gasped, pointing behind her. Sabina reaches more than the one I have just mentioned to state here, though it is really very becoming to her.

"It's Solly!" I whispered, and Chloe says that only then and only for a moment Mr. Van Ness was disturbed. All through the luncheon, though Anna Stuyvesant was positively incoherent and Satterlee exploded from time to time without the least apology, Mr. Van Ness was as dignified and imperturbable as though he had been

THE PARABLE OF THE CHRISTMAS STOCKING

By Rev. William E. Barton, D.D.



LIFE IS A CHRISTMAS STOCKING.

It is long and deep. We cannot see to the bottom of it, nor reach our presents at a single snatch; we must take them out one by one.



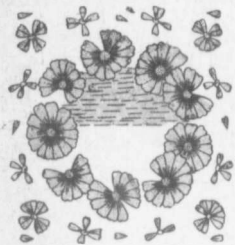
THANK GOD for the length of the stocking, and for the variety of its contents! Thank Him for the gifts that bulge out at the top—the big red apple and the candy bag—the commonplace blessings we learned to expect. Thank Him for the gifts that are new every morning and fresh every evening, and that come with Christmas every year. Thank Him for the providence that holds undiscovered presents underneath, and keeps them for the sweet surprise. And thank Him yet again that we do not find all the presents we have marked on the Christmas list of our desires, but that we have something left for which to hang up our stockings when Christmas comes again!



LIFE IS A CHRISTMAS STOCKING. It is long and deep. Take your blessings from the top one at a time, gratefully, but not too fast or eagerly; enjoy them and be generous with them, and reach down again! For some of the dearest gifts of the love of God are hidden so deep that we find them only when we have come to believe that life is empty and sad, just when most we need to find the choicest and best of all the secrets of His never-failing goodness towards His children. And when you have reached the very bottom, hang up the stocking of your hope again; for God has other Christmas gifts for you in the world from which Christmas comes.

ART EMBROIDERY

There is an article of useful fancy work which is always fashionable, no matter what the time of year, that is the sofa pillow. It can be made of silk, velvet, cretonne, linen or art cloth. Perhaps the prettiest and most practical of these are the ones with colored designs printed on art cloth and only requiring outlining with col-



No. 908 (Pb., 1908)

ton to complete. The work may be so simple that it will prove a pleasant occupation for little girls, or it may be made very beautiful and elaborate if careful shading of flowers is carried out.

The sofa pillow design No. 908, illustrated below showing conventional Lotus flowers, is beautiful and inspiring and when finished it will make a most welcome Christmas gift, or it may be made very beautiful and elaborate if careful shading of flowers is carried out.

Price of Perforated Pattern, which can be used an unlimited number of times, is 25c, including the necessary stamping materials. The design

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stamped in natural colors on our art cloth, size 22 x 22 inches is 90c. Ten skeins of colored silky cotton to outline is 25c extra.

FRENCH KNOTS

To form the knot: Draw the needle through the upper side of the material; hold it in the right hand, and with the left hand take hold of the thread near the knot and twist it two or three times around the needle. Now put the point of the needle through the material again close to the point at which was brought up, draw the twisted thread around it and push the needle through. Hold the twist close to the goods with the left hand while you draw the length of thread through in order to keep the thread from uncoiling. When the thread is drawn quite through it holds the knot in place. The size of the knot will depend largely upon the number of times the thread is wound around the needle, as well as upon the size of the thread used.

SHADOW EMBROIDERY

The work is done on the wrong side; it is actually a shadow of the embroidery that is seen. To have a good effect very sheer material must be used, such as lawn, etc. The design should be stamped on the wrong side of the material. The veins in the petal or leaves should be worked in Outline; all single lines of the design are usually done in Outline. Commence at top petal, fasten thread by taking several stitches on the outline. Begin at left of petal; take a short stitch through material very close to first stitches, carry thread right; and so on until the entire leaf is covered on the wrong side with criss-cross work. See that these little stitches are all about as they show on the right side. Stamens of the flower should be made in French Knots or Solid work on the right side.

Chanticleer Egg Cozy

Several girls are making for Christmas present this year fascinating little rooster heads in flannel of two colors. Each head is cut double and wadded on the inside with cotton batting. The roosters are invariably white, with a comb and wattles of scarlet. When completed, Sir Chanticleer makes a novel egg cozy to slip over the breakfast egg in the egg cup when cereal or some other breakfast preliminary is to be eaten first.

A Christmas Blotter

With two large sheets of blotting paper of contrasting colors and an ordinary ruler, you can make an extremely useful gift. Out of the large blotter cut twelve small pieces of uniform size, about ten by four inches. Paste a month's calendar on the smaller blotter, and with the colors alternating. Keep the twelve together by tying ribbon around them, with a pretty bow on top. Each month a fresh blotter may be slipped under the ribbon and the month's calendar is right at hand. Red and green blotters tied with red ribbon are a Christmas combination.

A Christmas Wish

What blessing can I wish you, O my friends. Save that the joyful calm of Christmas-tide Should wrap your hearts so close that never jar

Of the world's care or grief can enter in, But only love, to keep you pitiful, And faith, and hope, to keep you strong and true?

"A Merry Christmas" and "A Glad New Year."

I wish you, and may God's exceeding love Enfold you safely, until His tender hand Shall lead you safely home, to love's own land!

The Christmas Dinner Table

A simple arrangement for the table is gained by using a thick holly wreath with two long ribbons with broad red ribbons and placing in the center a crystal candelabra filled with tall candles.

Another plan is to have a center-piece of wedge-shaped boxes holding slices of rich fruit cake or Christmas bonbons, and the points of the boxes may hold candles. These boxes may serve as souvenirs. A vase of holly or mistletoe is placed in the center of the table. Little candles in star holders can be arranged about the outer edge of boxes, which are tied with red and green ribbons. Place cards suitable for the season are laid on each plate, while in the napkins are placed bread slices.

For a family dinner, a large glass bowl filled with polished fruit, may be used for the center of the table, making a mass of rich and glowing color. A wreath of grapes and holly may be placed about it and candlesticks can hold the tall red candles, which may have red shades. It is one of the best china and glass.

A star of brown and green pine cones makes another effective center-piece, each point ending in a fan made of green pine needles. At each intersection may be arranged a small red candle. At each corner is placed a sprig of holly. Bonbons and menu carry out the Christmas colors as far as practicable.

A Handy Door-Stop

A discovery which I recently made was a contrivance to hold a door open without the usual door-stop. It was simply a piece of wood cut in the shape of the illustration shown below, and screwed loosely to the floor near where the edge of the door came when open. After the door is opened a



touch of the foot brings it around so that the notch is slipped under the door, the large end preventing the door from swinging shut. When not in use it is slipped back close to the wall and painted to match the woodwork of the room it is scarcely noticeable. Of course, this could only be applied where the door swings back against the wall.—Mrs. Robt. Burns, Halton Co., Ont.

For Watering Plants

Take a square of table oilcloth about twice the size of the flower pot and cut a small hole in centre as shown in the diagram. From one edge cut the oilcloth to the hole. Then wrap the hole, pinned under the stem of the plant, resting the cloth on the top of the flower pot. When the plants are sprinkled, the leaves will be washed, but no soil washed off, or even wet.

—Mrs. T. J. Moberg, Norfolk Co., Ont. Your subscription extended six months, for one contribution to the above column. Send drawing in black ink on plain unruled paper.

Buffalo moths may be exterminated by the use of lavender or musk or camphor—in fact anything with a decided odor will drive them away, says the Ladies' Home Journal. Put a little gum camphor in the corners and around the edges of your floors. Keep the rooms open and as light as possible. Put camphor among your clothing, among newspapers for wrapping, and the moths will soon leave you.

Renew Your Subscription Now.

THIS APPEAL IS TO YOU!

The Hospital for Sick Children

REMEMBER That Every Sick Child in Ontario Whose Parents Cannot Afford to Pay for Treatment is Treated Free.



The Hospital is not a local institution, but provincial. The sick child finds any place in Ontario, who can't pay, has the same privileges as the child living in Toronto.

The Hospital had last year in its beds and cot places outside of Toronto, seventy-five per cent, were children of poor people who could not afford to pay.

This Charity appeals to fathers and mothers of Ontario for funds to maintain the hundreds of sick children that it nurses every year.

Since its foundation the Institution has treated 14,408 children, 10,800 of HAPPY WITH HER DOLL. These were unable to pay and were treated free.



BEFORE. AFTER.

There were 61 cases of club feet treated last year.

If you know of any child in your neighborhood who is sick, or has any deformity, send the parent's name to Secretary.

The Hospital's Cry is not for itself, but for the Children, as your Dollars go to the Hospital, but to the Children.

"THIS IS YOUR BOOK."

Please Send Contributions to J. Ross Robertson, Chairman, or to Douglas Davidson, Sec.-Treas. The Hospital for Sick Children, College St., Toronto.



Just Average! Means easy running. Shows Special Savings reverse the motion, and really go half the work. "Winger Stand" is a new design—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.

General Manufacturing Co. Limited, Hamilton, Ont.

Plain Bread Making

S. J. WHITE

"POOR" anybody can make bread," I fancy I hear one of you say.

That may be true, but what kind of bread—good, bad or indifferent? That makes all the difference in the world. The truth is, there is nothing in the whole range of cooking that is so uneven in its results as bread. That is the experience of the majority of cooks, amateur and professional. I was talking on this subject once with a very capable woman, who always had the most delicious and toothsome bread.

"You never seem to make a mistake, Mary, or to have bad luck with your baking," I said.

"There's no need of either, Madame," was Mary's reply. "It is just lack of care. When I make bread I put my mind to it, and see to it that it is right." "And not every body can make good bread, no matter how hard they try. There's Nellie, now—Nellie was her assistant, whom she was teaching to cook—" "It's no use to try to teach her; she never can do it; she's too heavy-handed; she'll never make a cook. I was telling her that this morning."

At first I didn't quite see what Mary meant. I found out by watching. The girl moved clumsily; she touched things as though her hand was of iron; she clutched rather than held whatever was in her grasp; there was no delicacy, no alertness to any of the motions. She was just "heavy"; that described her better than any other word would have done. I have seen a few people like her since, and I have found out in every case that they were not good cooks; no matter how conscientiously they tried, they could not succeed. It was the hopeless heaviness of their movements.

ABOUT THE YEAST

Before we begin mixing the bread I have a word to say to you about the yeast for making the dough rise.

In these days the yeast most generally used is the convenient compressed yeast, but when Bettie had her lessons in bread making she had first of all to learn to make yeast, as housekeepers then depended almost wholly upon homemade yeast.

And even now, if one lives at quite a distance from town, and the grocer doesn't come regularly for orders, it is most convenient to have one's yeast jug to go to when there is bread to be made. I know housekeepers who never let themselves get out of this necessary article, generally using the last cupful with which to start a new supply.

It is no difficult matter, this of yeast making, as you will soon discover. The dread of undertaking it is far more than the real task of doing it, as is true in so many things. You will need the following ingredients in the given proportions:

HOW TO MAKE YEAST

One large potato, one tablespoonful of hops, loose, one pint of boiling water, one heaping tablespoonful of flour, one heaping teaspoonful of sugar, one heaping teaspoonful of salt, one-quarter of a teaspoonful of ginger, one-half a yeast cake dissolved in half a cupful of lukewarm water or half a cupful of yeast. Wash the potato well, pare it, and put it in one

into cold water. If you neglect to do this the potato will discolor and spoil the appearance of the yeast; so remember it, won't you?

Steep the hops in the boiling water.

Mix the flour, sugar, ginger and salt in a large bowl, then grate the potato into this flour mixture; let the hop water boil for one minute, then strain it over the potato and flour, and mix it as quickly as possible. It should thicken like starch with no cooking, but if it fails to do this put it over the fire for a few minutes. If it is too thick add a little more boiling water until it is the consistency of cream; set it aside to cool, and when it is



Position of hands in kneading the dough

lukewarm add the yeast. Put it in a warm place to rise until it is frothy and light, beating it down every half hour. When it is risen sufficiently, put it in a jar or a glass bottle, cork it and keep it cool. Don't fill the receptacle; you'll be likely to have an explosion if you do, and find your yeast anywhere but where you put it. Remember, the jar not over two-thirds full, to allow for fermentation.

When you have to take some yeast out do not take the jar into a warm place, but pour it out where it is kept, and be sure that the cork is replaced at once. You will notice that the potato is not cooked, but is grated raw. Now many of the rules that are in use call for boiled potatoes. I do not suppose that the yeast itself is any better made with the uncooked potatoes, but it keeps better. It is more likely

to turn sour when the cooked potato is used, just as any cooked vegetables spoil more quickly than uncooked ones. It is certainly more trying, both to fingers and patience, to grate the raw potato than to mash the cooked one, but the result will be better.

(Concluded next week)

Training Your Young

This boy, Ralph Young, of Lincoln Co., is only nine years old, and very small for that age. He broke this coat



so that it is perfectly gentle, and will carry both Ralph and his little sister, Flossie.

The Lunch Basket

I always put up the school lunches in a basket with a handle for the little ones to carry, or in a flat tin box that the boys can strap to their books. I have on hand a supply of oiled paper in which to wrap sandwiches, cake, etc. Some of the sandwich fillings I use are cream cheese, some sweet filling. For the latter I chop figs or dates very fine and add a few drops of lemon juice. The lunch basket should always contain fruit of some sort—an apple, orange or banana, or, lacking these, some raisins or prunes. I soak the latter in water over night, dry them off, and then roll them in sugar. Occasionally I put in a bit of plain cake or a little jelly or marmalade in a glass provided with a screw cover.—Mrs. J. A. Lane, Brant Co., Ont.

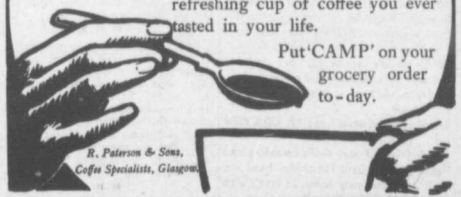
Our new Cook Book has several reliable and valuable hints and helps to assist in the housekeeping. Have you one of these Cook Books?

How to prepare

'CAMP' COFFEE

A teaspoonful of 'CAMP', sugar, milk, boiling water—that's all! Result—the most fragrant, delicious, refreshing cup of coffee you ever tasted in your life.

Put 'CAMP' on your grocery order to-day.



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The Sewing Room

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

THIRTEEN GORED SKIRT 415

The many gored skirts in this series are one. This one is varied by plaits at the front and by trimming of buttons, and simulated buttonholes, but it is used fitting at the upper portion and it flares only slightly for comfort at the lower. The skirt is made in 13 gores and the front and the side gores are so arranged as to form

inverted plaits at the front with one single plait at each side thereof. Material required for medium size is 10½ yds 24, or 27, 5½ yds 44 or 52 in wide. The pattern is cut in sizes 24, 26, 28, and 30 in waist and will be mailed on receipt of ten cents.



INFANT'S LONG COAT 515

Just such a long protective coat as this one is needed for every little tot. The material really provides two as it can be made with or without the cape, and it is adapted to henrietta cloth, to silk, to broadcloth, to every material that is used for infants' coats.

Material required 4½ yds 21, or 24, 2½ 44 or 2½ yds 52 in wide. 5 yds of edging to trim as illustrated. The pattern is cut in one size only and will be mailed on receipt of ten cents.

PATTERN FOR LEGGINGS 615

Warm protective covering for the ankles and legs is a requisite for cold weather comfort and is in special demand by the younger contingents. Leggings are simple yet shapely and smart, and can be made from cloth, velvet, velveteen or any similar material and can be cut off at the knees or extended above them as liked.

The leggings are made in three pieces, the inside portion and the front and back of the outside and are buttoned into place.

Material required for medium size (8 years) is ½ yd any width.

The pattern is cut in sizes of 4, 8, and 12 yrs of age and will be mailed on receipt of ten cents.

FANCY TUCKED BLOUSE 615

The latest blouses are made with just such long, pretty sleeves as these and this model can be utilized both as the separate waist or, net, thin silk, lingerie material and the like and for the entire gown.

The waist is made with a fitted lining, which can be used or omitted as liked, and consists of the front and the back with the shaped yoke.

Material required for medium size is 4½ yds 21, or 24, 3 yds 24, or 2½ yds 44 in wide.

with 10 yds of banding and 3½ yds of edging.

The pattern is cut in sizes for a 22, 24, 26, 28, and 40 in bust, and will be mailed on receipt of 10 cents.

OUR FARMERS' CLUB

KING'S CO. N.S.
WATERVILLE—Butter fat fetches 27c at the creamery here. Cows are scarce and high in price. Eggs are steadily rising in price and are not likely to drop until after Christmas, but, on the whole, the weather has been favorable for hens, and where they are properly managed, they are laying well. Owing to the inclemency of the weather, plowing has been continued until quite recently and most of the plowing is done. The chief occupations now are getting home the firewood, packing apples, hauling out manure and putting things straight for the winter. So far we have had very little snow, which would be welcome in the woods. The wages of lumbermen are considerably lower than last year. Nova Scotia has shipped 227,445 bbls of apples to the Old Country up to Nov 23, and 73,000 bbls to local markets and the United States. The N. B. Government exhibit where they were shown, and the 73,000 bbls of apples at the Royal Horticultural Show was awarded a gold medal, while private exhibitors with 15 boxes, gaining the various bronze and silver medals. The returns from England show a drop of about two shillings in the apple market.—*Junice Wate.*

GRENVILLE CO., ONT.
PERECOT—Potatoes, 60 to 70c a bush; springers, \$30 each; hogs, 6c a lb.; fresh eggs, 30c a doz; corn butter, 50c a lb.; timothy hay, \$12 a ton; clover, \$14 a ton, \$23.50; middlings, \$27; oats, 45c; corn, 82½c—O. W. C.

GLENGARY CO., ONT.

MAXVILLE—About two feet of snow has fallen and the weather is very cold. Water is scarce and unless another thaw comes, many wells will be dry. Hogs, 6c to 7c a lb. w.; chickens, 6c; calf testicles, 50c a pair; potatoes, 60c a bush; fresh eggs, 30c a doz, corn butter, 50c a lb.; mitch cows, \$30 to \$45 each; hogs, 6c to 7c a lb. l.; chickens, 50c a pair; hen, 60c; timothy hay, \$12 a ton; clover, \$10; mixed, \$11; baled straw, \$5; wheat bran, \$14; bran, \$12; middlings, \$23; oats, 50c a bush; barley, 55c—A. D. M.

FRONTENAC CO., ONT.

ELGINBURG—The weather is fine and mild. We have had some fine Institute meetings at which some first class addresses on dairymen were delivered by Mr. J. N. Paget of Canboro. If dairymen would take his advice it would be better for all concerned. Timothy, \$10 a ton; clover, 65c; peas, 65c; potatoes, 50c; hogs, 6c a lb.; timothy, \$4 a ton; clover, \$14; baled straw, \$5; loose, \$7; wheat bran, \$12; middlings, \$24; mixed meal, \$31; oats, 50c a bush; barley, 60c; corn, 85c; peas, 50c; fresh eggs, 30c a doz; corn butter, 50c a lb.; mitch cows, \$25 to \$30 each; beef, 6c to 8c a lb. w.; butchers, 7½c to 9c a pair; hen, 60c to 75c—J. K.

ANANOUQUE—The weather is cold and clear. With the extremely dry summer and fall the wells are dry in many places and the water is better than it has been for years. It will be a serious question for the farmer to provide water for his stock. The farmers report lots of feed crops carrying through the winter and there is not much to sell. All these factories are closed. Fresh eggs, 30c a doz; corn butter 50c a lb.; timothy, 10c to 12c a lb. w.; mutton, 10c to 15c; chickens, 50c to 60c a pair; potatoes, \$1 a bag; mitch cows, \$30 to \$45 each; springers, \$35 to \$50; calves, \$4 to \$10; timothy hay, \$16 a ton; clover, \$14; loose straw, \$10; wheat bran, \$12; middlings, \$27; oats, 45c a bush; corn, 80c—R. J. L.

HASTINGS CO., ONT.

ACTONVILLE—We have had a very fine fall, but the weather has been exceptionally dry. There has never been such a scarcity of water here before. Wells that have never been known to fall are dry. We have had a little snow stored but it has all gone, and we are having warm, rainy weather. It is to be expected that the grass is getting quite green. The farmers are still busy with their plowing. If the weather continues to be so good a great benefit to those who are scarce of feed. The hunting season is over and a number of the deer were taken home. Some of the boys shot their deer with silver bullets. There are prospects of good times in the near future

for Actonville, as there has been a rich American company buying up mineral areas. They are building a plant in Actonville for the manufacture of Actonolite roofing—T. K.

WELLINGTON CO., ONT.

PERDUS—Since the beginning of the month, we have had wintry weather. Frost has been frequent, which has been hindered by dry weather, was completed. Grain crops were fair, with the corn and soybeans rather light, testing between 23 and 33 lbs to the bush, and selling at about 56c. Hay, loose, is worth about 10c. The farmers are paying \$7 a ton. The Farmers' Institute meetings were well attended and good addresses were delivered by Dr. Standish of Walkerton, on the care and feeding of the horse. Our locality has advanced greatly in the past year by installing the rural telephone system, which is a great benefit to the farmers—R. E. R.

OXFORD CO., ONT.

NORWICH—There has been but very little rain since the middle of August save as a result of a heavy dry shower. Plowing was nearly all finished and some farmers plowed part of their ground ready to get corn and clover ready for next season. Cheese is being made for the season on Dec list and are now making butter. Some patrons separate their milk at home and cream it at the factory. Butter is selling well—farmers' milk, 25c a lb. and 25c or 5c higher. There are reports that some of the farmers are going out of the hog business owing to the low prices received and high prices of feeds—B. G. P.

VICTORIA CO., ONT.

HIGHLAND GROVE—Owing to the dry season this year the dairy business fell somewhat behind other years. A lot of cattle have been disposed of this fall as the supply of feed is small. It is to be hoped that we will have a little milder and shorter winter than last year. On the whole, the weather has been very dry this year, especially straw. Potatoes were a failure in a great many cases. Other crops were comparatively good. Most of the farmers took advantage of the good weather and got a lot of plowing done.—F. R.

PARRY SOUND DISTRICT, ONT.

SPRUCEDALE—The fall has been fine for getting work done but rather dry for plowing. On Nov 15 we had a heavy fall of snow and good sleighing which lasted about a week. Then milder weather set in with a lot of rain and there was fine plowing up until Nov 25. We have good sleighing again, and nearly two feet of snow, as it has been snowing nearly continually since this month came in. After that we had a time fighting fires. They were very bad in some places. There was quite a lot of timber, tan bark and logs burned. There were not many settlements burned out, however.—W. J. F.

THUNDER BAY DISTRICT, ONT.

SLATE RIVER VALLEY—The one important thing the farmers should be very careful about, is the selection of good, clean seed. The farmers of this district are in respect to bad weeds, but it will be necessary for us to be continually on our guard against them. As I improve seed. I regret to say that some of our well-respected farmers in Fort William last spring gave a section for the sale of seed of certain varieties as "A. I.," "Government inspected." Upon opening the sacks our surprise was great to find that one season's seedling, the largecentage of weed seeds of various kinds, it will take years to undo the damage done by this one season's seedling. The threshing and baling outfits have completed their work, and as the roads are in excellent condition, produce is being marketed as rapidly as possible. It is being extended work being done on the

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C. P. B. and G. T. P. terminals, the demand for farm produce is even keener than usual. The hunting season has closed, and many people are happy in the possession of a moose or red deer for winter use, as well as very exciting tales of adventure in the bush—J. B. H.

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

To our members and breeders of Ayrshire cattle :
 Kindly allow me to remind you that our association year closes with the calendar year, Dec. 31st. Therefore, in order to allow me to get my accounts closed on that date, will those members who have not yet paid the members' fee for 1908, kindly remit some time during this month, the amount of the annual fee, (\$2.00), to either the accountant, National Live Stock Records, Ottawa, or the secretary at Huntingdon, Que. On receipt of this fee a copy of Vol. 17 of the Herd Book will be sent.

We have received a large number of new members during the year and hope to receive a few more ere the year closes. On receipt of the annual member's fee of \$2 you will be enrolled as a member and we forward free to your address a copy of Vol. 17 of the Canadian Ayrshire Herd Book. This book contains nearly 3000 pedigrees of Ayrshire cattle recorded in 1907. 43 cuts of prize winning and record Ayrshires, minutes of last annual meeting, the new constitution and bylaws, uniform scale points for judging Ayrshires, records of cows and heifers that have registered in the Record of Performance Test, list of members of the Association, and list of breeders and owners who have recorded animals in this volume. The whole makes an interesting

book, and should be in the library of every breeder and owner of Ayrshires. I beg also to remind you that Volume 18 of the Herd Book closes on Dec. 31st. All breeders desiring to secure a consignment of their animals appear in that volume should forward their applications to the accountants here, who date W. F. Stephen, Sec. Treas.
 Huntingdon, Que., Dec. 3rd, 1908.

AYRSHIRES AUCTIONED IN THE WEST
 A successful sale of Ayrshire cattle was held at Edmonton, Alberta, Dec. 1st. The animals disposed of were a consignment that had been sent by Mr. B. C. Clark, of Hammond, Ont. Most of the animals were young and the prices realized were considered to be fairly satisfactory. We are informed that if Eastern breeders will ship only animals of good quality, particularly as regards the improvement of the pail, to the West, that there is likely to be an excellent market in Alberta for dairy cattle in the near future. The animals sold, the prices realized, and the purchasers, were as follows: Glenora of Kello, 13792, bought by Page & Phillippe, Oida, \$90; Prince of Hammond, bought by W. B. Winslow, Lacombe, \$95; Burnside Togo, 5672, by V. Schenkelder, Trochu Valley, \$75; Lord Glenora, of Hammond, 2722, by A. W. Archibald, Lacombe, \$87; Jerry of Hammond, 2723, by K. G. Dalziel, Ferrybank, \$70; Glenora's Hair of Hammond, by A. Peterson, Lacombe, \$12; Ethel of Maple Hill, 1667, by A. W. Archibald, Lacombe, \$75; Woodroffe Lily 44, 2304, by W. E. Key, Lacombe, \$71; Woodroffe Blossom 3rd, 2561, by W. B. Winslow, Lacombe, \$67; Woodroffe Clara, 2561, by W. B. Winslow, Lacombe, \$95; Woodroffe Gura 13th, 5039, Mr. Tuckett, Lacombe, \$70; Hammond Model, 2728, by W. B. Winslow, Lacombe, \$88; Ayrshire Belle, of Hammond, 2725, by Paul Leighton, Lacombe, \$85; Patsy of Hammond, 2726, by W. B. Winslow, Lacombe, \$95; Lily, promising heifer by Glenora of Kello, 1079, by W. B. Winslow, Lacombe, \$95; bought by A. Peterson, Woodroffe, by J. E. Clark, Gilliland, Alta.

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MARKET REVIEW AND FORECAST

Toronto, Monday, Dec. 21, 1908. — General wholesale trade has entered upon a quiet period and will continue so till after the holiday season. The foreign business done during 1908 has been considerably below that of 1907. During the past three months, however, there has been a great improvement, and business has been fully as good as for the corresponding period of 1907. The retail trade seems to be experiencing the usual good Christmas business. The demand for money keeps good, yet funds in the banks are accumulating fast. Call loans rule at 4 to 6½ per cent., and discounts on commercial paper at 6 to 7 per cent.

WHEAT

The wheat situation is not as strong as a week ago, though if the influence of the speculator were eliminated a steady condition in the market would have prevailed all along. Chicago manipulators have been in the market for some time, the past few weeks "bulling" the market when there was little reason for doing so, and "bearing" it when it suited their purpose. The fluctuations have been due to the manipulations, and it would be better for both producer and consumer if speculations could be stopped altogether. What little the producer may gain, when the speculator, for his own purposes boosts prices, is lost many times over when prices are shoved down unnecessarily. All concerned would benefit by legitimate trading governed by the supply and demand of a favorable report from the Argentine and rains in the United States fall when area helped to keep up values at the market, and the weak. The European market is lower owing to the arrival of more Russian wheat. The Winnipeg market rules steady, with prices well maintained. The holiday season is affecting the local market here and not much activity is expected till after it is over.

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over. There is very little Ontario wheat moving and there seems to be little demand for it just now except in small lots. Dealers here quote Ontario fall wheat at 90c to 94c and goose at 90c to 91c outside. On Toronto farmers' market fall wheat sells at 90c to 95c and goose at 90c to 91c a bush.

COARSE GRAINS

The oat trade is quiet. Manitoba oats are in more demand than Ontario oats for milling purposes. The market here is at 43c bay ports. Ontario oats are not inquired for to so large an extent and the market is easy. Dealers here quote at 37c to 38c outside and 42c to 43c on the farmers' market. The barley market, excepting for malting barley, which appears to be in demand, is easy. Dealers quote 30c to 35c outside as to quality, and peas at 30c to 30½c. On Toronto farmers' market malting barley sells at 50c to 51c but there is little of it coming in. Feed barley sells at 40c to 51c a bush.

SEEDS

There is no change in the seed situation. Dealers here quote prices at country points as follows: Alse, 87c to 87½c; timothy, 81.50 to 82.10, and red clover 84.25 to 85.25 a bush as to quality.

HAY AND STRAW

The supply of hay in the country seems to be equal to the demand. At Montreal receipts have increased of late and though the demand keeps good it is not enough to take up all receipts as they arrive. The Liverpool market is reported stronger. Baled hay in car lots on track here is quoted at 81c to 81½ for No. 1; 81 to 81½ for No. 2; 80.50 to 81 for No. 3; 80 to 80.50 for clover mixed, and 79.50 to 80 for clover. Baled straw is quoted there at 4½ a ton. The market for baled hay is under steady at 81 for No. 1, and 80 to 80.50 for underlings in car lots on track here. On the farmers' market here baled hay sells at 81c to 81½, clover at

87 to 81½; loose straw at 87 to 88, and straw in bundles at 81 to 81½ a ton.

FEEDS

There is little change in the market for mill feeds. Bran keeps in good demand with supplies limited. At Montreal Manitoba bran is quoted at 82 and shorts at 84, and Ontario bran at 82 to 81½, and shorts at 84.50 to 85 a ton in car lots. Dealers here quote bran at 81.50 to 83 and shorts at 82 to 82½ a ton in bags in car lots outside. This means about 82.50 for bran in car lots on track Toronto. Corn prices are gradually getting lower. At Montreal car lots on track are quoted at 70c a bush. Here old corn is quoted at 70c and new at 67c to 68c in car lots on track Toronto.

POTATOES AND BEANS

Potatoes rule firm at Montreal and are in fair demand. Vermont potatoes continue to arrive here. Quebec are quoted here at 75c a bag in car lots. Trade here is a little quiet. Ontario still sell at 60c to 52c a bag in car lots on Toronto, and 65c to 60c a bag on the farmers' market. The market for a little unsettled. Western Ontario shippers are asking from 61.60 to 61.65 a bush for car lots delivered at Montreal for three point pickers. There have been complaints here of many car lots being short weight, according to the Government weighers' standard.

EGGS AND POULTRY

Eggs are firmer and higher. There is practically no new-laid on the market, and prices are a little quiet. Eggs are quoted at Montreal at 35c to 36c; select at 35c to 35c; and No. 1 at 35c a dozen in case lots. At some Ontario points receipts are quoted 30c to 31c a dozen. Strictly new-laid are quoted here at 35c to 40c in a jobbing way; select at 35c to 40c.

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tations for choice creamery at Montreal fall at 80c to 80½c. The market here rules steady though at the end of the week there was a slightly easier feeling, owing to the large receipts. Dealers quote creamery at 28c to 29c; dairy prime, 25c to 27c; store prime and large 7 lbs. at 25c to 26c, and inferior at 23c to 24c. On Toronto farmers' market dairy prime sell at 28c to 35c and solids at 25c to 28c a lb.

UNION STOCK YARDS HORSE EXCHANGE

The general horse market shows little change. Present indications are that sellers in the country will have to lower their prices a little before much business can be done. At the horse exchange, West Toronto, there has been more inquiry for horses but the volume of business has not increased much. There has been some inquiry for pure bred Oldendale mares and others for the west. Prices for good sound drivers are now between \$165 to \$185; wagon and delivery horses, \$135 to \$145, and drivers \$125 to \$170 each.

LIVE STOCK

Last week's live stock trade began well. At the Union Stock Yards on Monday there was a fine run of Christmas beef, and prices ran up from 56 cents to 81 cent above the ordinary run of prices for several weeks past. One carload of Christmas beef sold at West Toronto at 85.50 cwt. On Tuesday at the city market the price was well maintained for choice beef. After that the prices eased off somewhat at the end of the week. At the close of Thursday's market there were some of the best lots unsold. There is little or nothing doing in the export trade. Shippers find it difficult to get space on ocean steamers and there still is ample fluidity about shipping cattle through to Europe because of the U. S. quarantine may have on shipments from this district. If the quarantine is long continued and the foot and mouth disease can be kept out of Canada, there should be a better demand for Canadian cattle in Great Britain. Just now, however, there are no signs of any movement of this kind. At the city market on Thursday a few export steers were reported sold at \$4.80 to \$5.00 and export bulls at \$3.50 to \$4.50 a cwt, with a few extra choice bulls selling at 84.75. Lower qualities quote steadily at 15.75c to 15½c a lb dressed weight.

There was one choice Xmas animal reported sold on Thursday at 85.50; but more sold at 84.50 a cwt. Choice steers at \$4.80 to \$5 paid for the general run of Xmas cattle. Loads of fair to good California calves are selling at 84.50 to 84.25; common, 81.25 to 81.75; cows, 82.50 to 83.75, and canners at 85.50 to 87.50 a cwt.

Trade in feeders and stockers rules steady with little change in prices from a week ago. There were several farmers on the market during the week looking

up feeders and the offerings were pretty well cleaned up. Best feeders, 900 to 1000 lbs each are quoted at \$3.50 to \$4; best feeders, 800 to 900 lbs each, at \$3.30 to \$3.70; best stockers, 600 to 700 lbs each, at \$3 to \$3.25, and common to medium stockers, 500 to 700 lbs each, at \$2 to \$2.75 a cwt.

There was a little better demand for milkers and springers owing to the moderate supply, though prices were no higher. Prices ranged from \$5.25 to \$5.60 each with the bulk selling at \$4.50 to \$5.50 each. Receipts of veal calves have been moderate during the week and the market has ruled steady at \$3 to \$6.75 a cwt. At Buffalo calves are quoted at 87 to 87.75 a cwt.

The receipts of sheep and lambs during the week were fairly large. The market, however, ruled steady for sheep with lambs firm at \$5.25 to \$5.60 each. Ewes are quoted at 83.25 to 83.40 and bucks at 82 to 82.50 a cwt. Canada lambs continuing in demand at Buffalo where they are quoted at 87 to 87.50 a cwt.

There is no change in the hog situation so far as this market is concerned. Thursday's market was a bacon market, feeling prevailed. Quotations rule at 86 a cwt for select and 85.75 for lights, feet and watered, and 85.00 for culls. Ewes are, however, report that in some country districts near here packers are paying 84 a cwt f.o.b. for hogs. The Buffalo market is reported slow at 83.00 to 85.50 for heavy and 83.75 to 85.85 a cwt for mixed. The Trade Bulletin's London cable of December 19th regarding the hog market is as follows: "The market is quiet but steady at a decline of 1c. There is a good demand, however, at the lower prices."

PETERBORO HOG MARKET

Peterboro, Ont., Dec. 15, 1908.—The local market is very weak, and the deliveries still continue very large. The deliveries of Danish hogs on the Old Country market are very heavy, 4,000 being brought in last week. The demand for bacon in England is very dull, and prices are declining rapidly. The George Matthews Co. quote the following prices for this week's shipments to the U.S. country points, 85.75 a cwt delivered at abattoir, 86; weighed off cars, 85.25.

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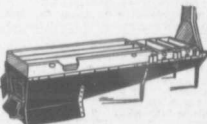
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The presses are very light in draft.

Both presses will bale any kind of hay or straw, including timothy, clover, alfalfa, wild hay, shrovetoot, pea vane, etc. The capacity, of course, varies with the material being baled.

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Among the special features of these presses which you will appreciate are large feed openings, perfect working roller racks, simple and efficient powers which operate on the compound lever principle, no extra increase of draft when pressure is greatest, and the great advantage of pulling the plunger instead of pushing it.

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