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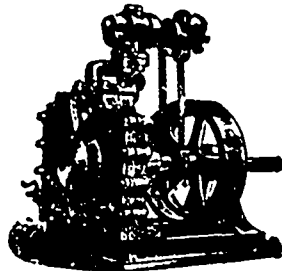
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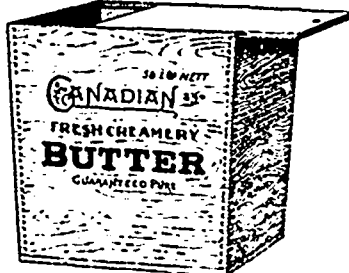
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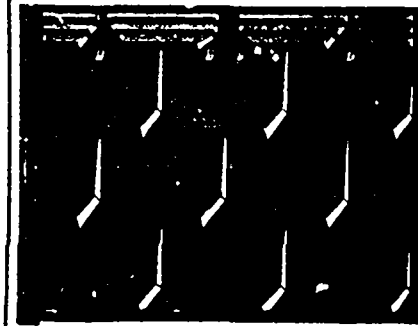
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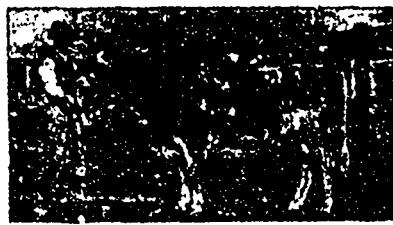
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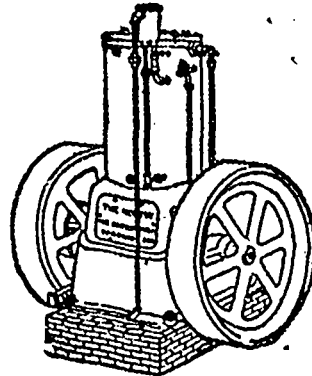
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FARMING

VOL. XV.

AUGUST 9TH, 1898.

No. 49.

FARMING

AN ILLUSTRATED WEEKLY JOURNAL DEVOTED TO FARMING AND THE FARMER'S INTERESTS.

Published every Tuesday by

THE BRYANT PRESS,

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TOPICS FOR THE WEEK.

Notice.

As yesterday was Toronto's Civic holiday and as our large staff of compositors, pressmen, proof-readers, editors, etc., were taking a well-earned rest, FARMING will reach its readers one day late this week. We aim each week to have every copy mailed to subscribers from this office on Tuesday, and it is a great disappointment to us when any difficulties arise to prevent this. Our market review and forecast covers all the market transactions for the week previous to the time of issue and is finally prepared and revised on Monday morning, and we aim to get the valuable information it contains in the hands of our readers as soon as possible, in order that they may get the full benefit from it.

Agricultural News and Comments.

At a public sale of Hackneys held recently in Scotland \$420 each was the average price for a good horse. The high knee actors are in great demand all over England, especially in the cities. The Scotch farmers go in for high quality, regardless of the service fees of \$25 to \$30. There is a pointer in this for Canadian breeders.

Did you ever hypnotize a chicken? It is a very easy thing to do. Just catch your hen, place it on the floor in front of you, with its tail towards you. Take a piece of chalk and draw a straight line, beginning at a point just under the hen's head and extending a foot and a half or more. The bird will fasten its eyes on the chalk, and in a twinkling almost she is unconscious of anything but that line. You can cuff and kick her about as much as you please, but her gaze will immediately return to the chalk line.—*Ex.*

The following method of keeping butter cool is given by an exchange: Get a common flower-pot and large saucer, fill the saucer half full of water and set the dish of butter upon it. Then cover butter and saucer with flower pot by turning the flower-pot. Close the hole in the bottom of the flower-pot with a cork, then dash water over the flower-pot every time it becomes dry. If set in an airy space a small dish of butter for the table can be kept cool and firm without ice.

The general tone of the reports from the portions of the United States where the fall wheat

threshing is completed are disappointing. This, however, is not because of extremely light yields, but because the yields are so much less than had been expected. The general fine appearance of the wheat fields before harvest seems to have caused too great expectations.

As far as can be learned at the present time, prices for apples are likely to be good this season. The outlook in the United States for a big crop is not at all bright. In fact, it is doubtful if the 1898 crop will be much larger than that of 1897, which was below the average. In Canada a small crop is predicted, though it is likely to be larger than last year.

The range cattle feeders of the west seem determined to get their stockers this fall for much less money than was paid last year. Last year stockers, as a rule, were not in as good condition as they are this year, owing to the pastures being better. In that case they will be worth more for feeding purposes. In addition to this, stockers are not so plentiful as last season, and feeders may find it difficult to get their supplies at the lower prices determined upon.

The price of merino wools in the United States is advancing. In European circles these wools have advanced in price fully twenty per cent. The goods made from these fine wools are always in stable demand by the wealthiest class of people, whose purchases are not usually affected by the fluctuation of prices. No limit, therefore, can be definitely settled for the advance in fine wools, which, according to some reliable authorities, must shortly ensue.

The biggest hog that we have ever heard of has been produced by a farmer of Decatur, Ala. This hog, which is only three years old, weighs 1,524 pounds, and is so fat that it cannot rise. It is ten feet two inches long and four and a half feet high, and is of the Berkshire breed crossed on the native southern stock. Its owner has refused five hundred dollars for it, as he thinks he can make more by moving it from place to place and exhibiting it.

A large share of the \$1,000,000 worth of American corn that now goes weekly to Europe is for the German farmer. For the past two years the German farmer has been learning how to feed this corn to his stock. It is estimated that there will be a yearly market for 150,000,000 bushels of American corn for this purpose in the German agricultural districts alone. Previously the German farmers had fed oats, Russian barley, and other cheap imported grains. Their own land is too valuable to permit them to grow feed.

Two creamery sharks showed up at Groton, Mass., and induced sixty-six farmers to subscribe stock to build a creamery in the neighborhood. Those who subscribed were induced to give notes and agreements to the amount of \$100 each. This would make \$6,600, which is nearly three times as much as a good, modern, up-to-date creamery could be erected for. When will farmers learn to enquire of the proper authorities, and not be duped by these travelling fakirs?

Adelaide of St. Lambert, Miller & Sibley's, of Franklin, Penn., celebrated Jersey cow, in an official test, gave in thirty-one days, 2,005 1/4 lbs. of milk; average per day for thirty-one days, 64 3/4 lbs.; highest single day's milk, 82 3/4 lbs.; for four

weeks, 1,817 1/4 lbs., three weeks, 1,370 1/4 lbs., two weeks, 917 1/2 lbs. Butter capacity as indicated by the Babcock test, 4 1/4 to 4 1/3 lbs. daily. In making this record she was milked three times a day at intervals of eight hours.

Our British Letter.

Prof. Robertson in England. Quality the Important Thing in the British Markets. A Permanent Canadian Exhibition.

(From Our Special Correspondent.)

London, Eng., July 21st, 1898.

Professor Robertson is now in England, and some of us have again had the pleasure of seeing and talking to him on the work he and the Dominion Government are attempting in the way of capturing the British markets. Some of the papers have said that "Canada is determined to become John Bull's 'home farm' over the water." Well, we are very glad to think and know there is a fair modicum of truth in the playful assertion. We are glad to know that Canada is attempting to take a share of our market profits, *i.e.*, providing we don't produce, ourselves, sufficient for our own requirements and, of course, we don't do so.

Mr. Robertson has been explaining how sedulously the Canadian Government considers the interests of its farmers and how industriously it cultivates British markets, and in this he secures a grand advertisement for Canadian produce—an essential nowadays even with a tip-top commodity. One of our daily papers goes on to speak as follows: "Although much has been done, the Dominion is just beginning its career as one of the great granaries, orchards, and dairy farms of the Empire. Canadians are concerned with only one market; they concentrate all their efforts to secure our patronage. As a mere example of beneficent government assistance, the system of agricultural education followed is a great achievement, as a piece of organism it is marvellous, as we have this immense territory, with its scattered population knit together with a series of links which establishes complete connection between the producer in the far North-west and the consumer in England with the fewest possible intermediaries, not less significant is the effect of all this in cementing the commercial bond between the motherland and her premier colony, and in increasing our common interests."

I will only add one thing to all that Professor Robertson has been saying (although I know the lesson implied thereby is already being enforced by the various agricultural experts in Canada), and that is, that to secure, and to retain, our market—a great and growing one—the great point to be arrived at is *quality*. If that be good, and if farmers are content to take a moderate profit for their wares, they will not be disappointed in achieving pecuniary success—the end of all their strivings.

I do not know whether the Canadian agricultural officials have it in mind to supply us with poultry and rabbits, for which there is a very considerable and increasing demand in Great Britain, but, if not, the idea might be worth attention, seeing that you are perfecting the system of cold storage for transit purposes. We receive enormous quantities of dead poultry and game from Continental countries, and if it pays the Continental farmer to supply us with articles of this description, it should also pay many a Canadian, for the cost of transit cannot be much, if any, heavier for the latter.

Since writing the foregoing I have ascertained, with much pleasure, that the negotiations for the establishment of a permanent Canadian Exhibition here in London are nearing a practical result. The Canadian Government has entrusted them to the Minister of Agriculture and to Professor Robertson, now with us, and these two officials are much pleased with the reception which has been given to the proposal by the Anglo-Canadian traders. The object of the scheme, I learn, is to arouse a keener interest in Canadian products and a more practical comprehension of the Dominion's natural resources. The Australian colonies, I believe, were the first to suggest the establishment of these colonial exhibitions; but, while they have hesitated, Canada has acted.

Quality all Important with the British Consumer.

In discussing Professor Robertson's visit to Great Britain and the developing of that market for Canadian farm products, our English correspondent points out that quality is the important thing to be considered. This fact cannot be too strongly impressed upon the producers of this country. No matter what the article is, if the quality is not the best it is only a waste of energy to try and export it at a profit. The British consumer is very particular about the quality of the food he eats. In fact no other people in the whole world give so much attention to the nature and quality of the food they eat as do the great consuming classes of the Mother Country. Other producing countries recognize this fact and so must the Canadian producer if he wishes to obtain a profitable market for his products in Great Britain. The British consumer may be imbued with a strong love for every portion of the great Empire to which he belongs, but his convictions in this particular are not strong enough, nor will they ever be strong enough, to induce him to purchase an inferior quality of food products from one of her colonies when he can get a better quality elsewhere. Not must the Canadian producer run away with the idea that the growing popularity of Canada and things Canadian in England during the past year or two will enable him to palm off any kind of a product upon the consumer there. All that we have a right to expect is, that, if our products are equal in quality to those produced in a foreign country, he will give us the preference over the latter when buying. To get him to do this, however, we must be in a position to assure him that the quality is right and always will be right. If we deceive him once on this point it may be a very difficult task to regain his confidence.

Another important point touched upon by our correspondent is the establishment of a permanent Canadian exhibition in London. Through the efforts of the Hon. Mr. Fisher and Professor Robertson this is likely to be done. The establishment of a permanent exhibition of Canadian food products in the business centre of the great metropolis should prove an excellent medium for reaching the dealers who cater to the consuming classes in Great Britain. It would be a means of advertising Canada and her products in every part of the United Kingdom. The provision dealers in the provincial cities and towns frequently make trips to London in the interest of their business, and if the exhibition were well advertised throughout the country, many of them would visit it on such occasions. There are many other ways also in which a permanent exhibition of this nature would be useful and effective in placing Canada and her products prominently before the British consumer.

The Deadlock in the Western Cheese Markets.

A couple of months ago the members of the cheese markets in Western Ontario made an effort to remodel the rules and regulations governing the selling and buying of cheese with a view to

making it compulsory for all factories using the privileges of the market to sell their cheese on the board only, and getting all the local boards to unite in the matter. The scheme seems to have progressed very well for a time; but a serious hitch occurred when one of the markets refused to join with the others. It now appears that the last state of some of these markets is worse than the first, and buyers and sellers are at a deadlock, making the meeting together to sell and buy cheese the worst kind of a farce.

It is to be regretted that the plan as first outlined was not carried out and adopted by all the boards, as we feel sure that both the salesmen and the buyers would have been well satisfied with doing business under the new regulations had they been carried out in their entirety. We are of the opinion also that the buying and selling of cheese at the local markets, especially in the western portion of the province, will never give the best satisfaction to all concerned till both factorymen and buyers agree not to buy and sell cheese only at the regular markets under the "call" system. Everything is then done "above board" and each one knows what business has been done and what is being done. Even if the regulations at present in force were strictly adhered to there would be some satisfaction in doing business, but where all parties use the market as a kind of a "feeler" the business of disposing of our cheese cannot be done satisfactorily.

The Future of Cattle Breeding.

Every thoughtful reader and careful observer will be convinced that the future of the beef cattle breeder will be much brighter than it has been during the past few years. When we speak of the beef cattle breeder we do not mean the fellow who breeds scrubs, but the breeder of really prime, first class cattle fit for putting upon the British market. It is too true that during the past decade we have had too many breeders of scrub cattle in this country that are not good enough for the export trade, and hardly good enough for the local trade. We are reaping the fruits of this line of policy on the part of our farmers in the large supply of inferior stuff that is being constantly offered for sale at the local cattle markets. It is hard to find a profitable market for such stuff in any case, and if the price is low it is almost unsalable.

In speaking, therefore, of the future of the beef cattle trade, we have only in view the breeder of high class cattle. For any other kind it is risky to forecast. Nor do we pretend to forecast what the exact future will be in regard to the better quality of stuff. All we can do is to give our own views and let them be taken for what they are worth. We have referred frequently in these columns to the growing demand in the Western States and in our own Northwest for the highest types of the beef-producing strains for breeding purposes. This trade is capable of further development, which development will depend largely upon our breeders themselves. If they will keep the quality of their herds up to the top mark, so that purchasers in the west can depend upon getting the kind of animals they want to head their herds, there will be a still greater expansion of this trade in the future than we have had during the past year and a half.

But the greatest opportunity for doing business will likely be in our own country. The next five years will probably decide whether the Canadian export cattle trade—whether it be in dressed meat or in live cattle—is going to become one of our prominent industries or not. The decision in this particular will depend almost entirely upon the quality of the beef cattle that this country will produce during that period. The question of freight rates and transportation facilities is important, but it makes no difference how advantageous these may be, no good results will be obtained unless the quality is at the top. Other countries, such as Argentina and the United States, are forging ahead in point of quality, and we must keep

up with them or we will go behind in the race for a place in the markets of Great Britain.

Canada is now in high favor among the people of the Mother Country, and the time would now seem most opportune for making a special push in the way of developing our export beef cattle trade. But, as every shipper and exporter knows, there is no use of making this push unless we have the quality of product to back us up. Our farmers and feeders must realize this also, and, no doubt, will make a greater effort than ever before to produce the kind of cattle required for this market. If they don't, our export cattle trade will soon go to the wall.

To supply the demand for better breeding stock that must result from a desire to extend the export trade will be the breeder's opportunity, and for which he must be prepared. For this purpose it will be necessary to make more importations than have been made in the past in order to keep the herds up to the highest possible standard of excellence. As we have previously stated, there are now too many inferior cattle in the country, and so an effort should be made at once to get a better quality. It will cost as much to raise and feed a poor steer as a good one, while the latter will bring nearly double the price. It may be that the development of dairying in this country has had something to do with the over-supply of poor beef cattle. If so, an effort should be made at once to remedy the evil. This country is big enough for both the dairyman and the beef producer; but both must work along different lines. The dairy cow and the dairy bull may produce a scrub steer, but it requires the cow and the bull of the beef strains to produce a steer fit for the export market.

Line-breeding from a New Standpoint.

Mr. Wm. McFadden, Secretary of the American Poland-China Association, comes out pretty strongly in a recent article on the system of line-breeding practised by many breeders. He begins by noting the number of swine breeders who are making crosses in their herds, and, to use his own words, "with more thought as to what the pedigree would look like than the probable results in the form and characteristics of the animals to be produced." We wonder if this is true of Canadian breeders? A pedigree is important, but it may not be the all-important thing in breeding. May there not be a danger of looking more to the pedigree of an animal than to the real qualities of the animal itself?

In another part of his article Mr. McFadden makes this strong statement: "Whenever a breeder decides that it is necessary to begin line-breeding, the decline of his herd begins from that time." The inference seems to be that the decline is not due to the mating of closely related animals as to the fact that when the breeder begins line breeding it is because he has become a partisan of some particular family or strain, and has thus narrowed the field from which to select animals for the improvement of his herd. No doubt breeders delight to have animals among their herds whose pedigree can be traced back to some noted animal of the past; but has it ever occurred to them that the pedigree of this noted animal may have been of uncertain character? All animals that have gained prominence in the past, have done so not because of their pedigree, but because of what they did, which goes to show that no matter how valuable a pedigree an animal may have its future reputation will depend upon its performance.

The Export Butter Trade.

Canada's export butter trade seems to be growing in importance every week. Not only is this the case in regard to the increased exports, but in regard to the quality of the output. Every week brings with it new evidences of the growing favor of Canadian butter in Great Britain. This season the report that Canadian butter is equal in quality to the best Danish, or that it has sold for as high

a price as the best Danish, comes to us from across the water more frequently than it did last year. A few years ago it was hard to find Canadian butter quoted in any of the British market exchanges, but now "Canadian butter" is becoming a familiar term in many of the leading market reviews. All this is conclusive evidence that Canadian creamery butter is gaining a foothold, and a pretty strong one at that, in the markets of Great Britain. The development of any line of trade, and especially of the export trade, is very much like the moving of a large body down an incline. When it gets a good start it goes on increasing in momentum of its own accord. So it seems to be with our export butter trade. It took quite a while to give it a good start, but now that it has got a place in the British markets it will go on advertising itself and claiming attention.

The necessary thing to be done, so far as the producer on this side is concerned, is to keep up the quality. No stone should be left unturned in order to do this. There has been a noticeable improvement in the general style of packing during the past year or two which has done much to give Canadian butter a better reception in the British markets. Our butter-makers cannot be too particular about the packing. First impressions are always lasting, and if the first view the British consumer gets of our butter is a favorable one it will not be hard to secure his trade.

Though there are strong indications that large quantities of creamery butter are going into cold storage on this side, the weekly shipments from Montreal continue to show large increases over what they were a year ago. For the week ending July 23rd the shipments were 9,619 packages which, as compared with the same week of 1897, showed an increase of 7,411 packages. The total exports for the season up to July 23rd were 57,263 packages as compared with 33,217 packages for the same period last year, showing an increase of 24,046 packages. But while our shipments go on increasing the shipments from the United States continue to decrease. For the week ending July 23rd the shipments from New York were only 990 packages as against 4,827 packages for the same week last year, and for the whole season up to July 23rd the total exports from New York were 26,492 packages as compared with 82,779 packages for the same period of 1897, or a decrease of 56,287 packages. We wonder if the Americans intend to drop out of the export butter business now that Canadian butter has got such a strong foothold? The comparison is interesting, however, and the decrease in the New York shipments overbalances the increase from Montreal by 32,241 packages, an important factor when summing up the butter trade situation.

The creamery butter market for the past few weeks has been somewhat contradictory so far as English and Canadian values are concerned. The British markets have been somewhat dilapidated of late owing to large supplies and a big home make, while the market here has been firmer and on the upward turn. This discrepancy between the two can only be accounted for by the purchase of large quantities on this side for cold storage, which has tended to enliven the market and to cause considerable activity in the demand for fine creamery. What the result of this will be it is hard to say. Purchasers for cold storage purposes seem to have every confidence in the market of the future, and it is to be hoped that they may pull through without any loss. The producer, at any rate, is reaping the benefit of it just now, and our advice to creamery men would be to sell regularly and leave it for others to hold butter if they wish.

The Export Egg Trade.

It will be gratifying to those interested to know that our export egg trade so far this season shows considerable improvement over last year for the same period. The total shipments this season from Montreal up to July 23rd were 8,834 cases as compared with 6,299 cases for the same period last year, showing an increase of 2,535 cases, which

is very gratifying indeed. The bulk of the shipments this season have gone to Liverpool, while Glasgow has taken a large share. The total exports of eggs from Canada in 1897 were 5,687,690 dozen, which amounted in value to \$795,180. The total exports for 1896 were 5,003,170 dozen, which were valued at \$700,284. Our export egg trade has therefore shown a healthy growth for the past two or three years, and if the present rate of shipments continues, 1898 will witness a very large expansion of this important trade.

Owing to the wheat harvest being somewhat earlier than usual this year new laid fall eggs have come in much sooner than during other years. This quality of eggs is considered the best of the season, and formerly did not make its appearance till well on in August. Some cases of this quality of eggs have already arrived in Montreal and been sent forward to the Liverpool and Glasgow markets. Orders for these have been filled on the basis of 6s. to 6s. 3d. per 120 cif., which is very satisfactory indeed. In order to make the most of the egg trade after the fowls have the run of the fields farmers should arrange to have the eggs gathered regularly and not kept too long before shipping.

The Sheep Industry in the West.

That the territory west of the Missouri River is the centre of the sheep industry of this continent is clearly demonstrated by the fact that out of the 41,000,000 sheep estimated to be in the United States, 30,200,000 of that number are estimated to be west of the Missouri. Consequently in discussing the sheep situation special attention must be given to the West. While the industry as a whole was never in a more prosperous condition, the percentage of lambs this season is not as large as usual. A Western exchange accounts for this shortage as follows:

"Owing to the rapid increase in the size of the flocks, fully 90 per cent. of the ewes of last year's lamb crop being retained for the purpose of producing wool, there was a scarcity of bucks, the increase in ewes being fully 50 per cent. greater than the increase in male sheep. This had a serious effect on the lamb crop. In addition to this, the universal cold rains during the lambing season caused a mortality of from 15 to 35 per cent., according to location, so it is doubtful if the per cent. of lambs will equal 60 per cent. of the number of ewes, which, being estimated at 17,000,000, would make the lamb crop about 10,200,000."

Pastures have been exceptionally good in the west this season, and the lambs are larger and fatter than usual. It is expected that fewer sheep will be marketed this year than last. The high price of western wool, fourteen to eighteen cents per pound, and the fancy prices paid for western alfalfa-fed lambs on the eastern markets, makes it more profitable for breeders to grow wool and lamb than mutton. The western breeders are looking for an increased demand this fall in the Eastern States for ewes for breeding purposes. During the depression of the wool and sheep industry in recent years, eastern flocks were permitted to run down to a low point; but it is now believed that eastern farmers are anxious to replenish their herds, and in order to do so the west will have to supply over 500,000 ewes. Because of this expected demand it is believed that a large percentage of the ewes shipped from the west this fall will go out as stockers and not as feeders.

The condition of the western sheep industry as outlined above should prove to be more than a mere item of news for the Canadian sheep breeder. If there is to be a large demand in the Eastern States this fall for breeding ewes, why is it not possible for Canadian breeders to supply a share of this trade? Then our sheep breeders must not lose sight of the fact that the west is the great feeding ground of this continent, and will need good stock to replenish its flocks from time to time. This trade is also worth catering for.

Quebec No. 1 Hard Wheat.

Experiments have recently been tried in the Province of Quebec to grow spring wheat, and the returns have been very satisfactory indeed.

Wheat grown in that province from Manitoba hard seed, it is claimed, produced a superior quality to that raised in Manitoba. The kernel was fuller and heavier than the seed planted, and there was a better yield than that obtained in Manitoba. Last year there was quite an increase in the amount of spring wheat sown in different parts of the province, and this year the increase is still more marked. Farmers who sold Quebec No. 1 hard last spring at \$1.36 per bushel have doubled their acreage this year with the prospect of reaping a splendid crop.

The Province of Quebec was quite an extensive wheat-growing country forty or fifty years ago. But through the negligence of its farmers in not maintaining the fertility in the land, and in cropping their fields year after year without paying any attention whatever to fertilization, the soil became thoroughly exhausted, and wheat sown upon it could not be properly matured. Now these same soils are being sown to day with Manitoba hard seed, and produce a quality of grain equal to, if not better, than the Manitoba product. This is additional proof of our contention in another column that it may be possible by proper treatment of the soil, and by restoring the lost fertility, to produce in the older provinces a quality of wheat equal to that produced in the North-west. If it is possible to reinvigorate the impoverished soils of Quebec and make them produce No. 1 hard wheat, why is it not possible to do so in the other provinces in the eastern part of the Dominion.

Canada at the Trans-Mississippi Exposition

Though nothing much has been done in a public way here in regard to a Canadian exhibit at the Trans-Mississippi Exposition, yet it appears that Canada is making a very creditable exhibition of her products at Omaha. So far, it consists of an agricultural, mineral, forestry and apiary exhibit, and is located in the International Hall. The exhibit covers a space of 5,000 feet of floor, and 6,000 feet of wall, which are covered with the best that Canada can produce. Mr. H. E. Knowlton is in charge of the exhibit, and every effort is made to make visitors thoroughly acquainted with the wonderful resources of Canada. This is done by distributing literature giving a full description of the country, its resources and its people with a view to introducing immigration. As yet there is no fruit in the Canadian exhibit; but later on a creditable display of apples, pears and plums will be made.

No definite effort seems to have been made to make a display of Canadian live stock. We have heard of only one or two breeders who have signified any desire to make a display. It may not be to the advantage of all breeders to go to the expense of making a display; but we are inclined to believe that it would pay the breeders of pure-bred Shorthorns and Herefords to send some of their stock to Omaha. In fact, we have drawn attention to this several times during the past few months, and are still strongly of the opinion that some of Canada's best beef-producing breeds of cattle should be represented at the Trans-Mississippi Exposition in October, and, if need be, the Government should help the breeders out by paying a share of the cost. Aside from the beef breeds, there is not much to be gained outside of the prize money for other breeders, excepting it be sheep breeders, who might be able to develop the Western market for their product by exhibiting.

Port Hope, Ont.

DEAR SIR:

Please find enclosed \$1 for FARMING for one year, to be sent to Thos. B. Jones, Millbrook, Ont. I am very much pleased with FARMING, and think it ought to be in every farmer's home.

L. BARCLAY.

Mr. T. G. Irwin, Linden, Ont., writes: "I like the change you have made in FARMING and shall continue to peruse it. It is newsy and up-to-date literature. The market bulletin is very helpful."

SOWING AND SELECTING FALL WHEAT SEED.

In growing grain of any kind the results to be obtained depend in no small degree upon the kind and quality of the seed sown. No matter how well prepared the land may be, if the seed is not clean and of good quality the best results cannot be obtained. Farmers should make special note of this in selecting their seed fall wheat. It does not do to go on sowing year after year seed grown on the same farm. A change of seed is always beneficial, and usually the greater the distance from the farm the seed is procured the better. Sometimes seed taken from a light sandy soil will give better results on a heavy clay soil than the seed produced on a heavy land and *vice versa*.

It is claimed that in some of the Northwestern States, such as the Dakotas, the wheat is gradually becoming softer and less valuable for milling purposes, and that in that section of the country where a few years ago only No. 1 hard was produced, it is now difficult to get a good No. 2 quality. This deterioration in quality is claimed to be due to some extent to using the same seed year after year, and an effort is being made in these states to procure new seed from Manitoba and our Canadian North-West where good No. 1 hard is grown. There is no doubt that to a considerable extent this claim is correct and that the continual sowing of the same seed on the same farm year after year will produce a softening of the grain and an inferior quality of product. We are inclined to the opinion, however, that this deterioration in the quality of the grain, while due in a large measure to a neglect of change of seed, may be due to the system of cropping fields year after year without providing for the restoring of fertility in the soil which has been taken out by such cropping. Phosphate, etc., would seem to be the ingredients that are lacking when a softer quality of grain is produced. This is something that our experimenters might take up and find out if there is any possibility of the Ontario farmer being able to produce a harder quality of wheat by restoring the ingredients in the soil which are present in the natural condition of the soil.

It does seem as if there is some essential difference between the Manitoba conditions for growing wheat and the conditions existing in Ontario, other than climatic. If the difference is due to soil conditions, why is it not possible to produce the same soil conditions in the older provinces? Of course the bulk of the wheat grown in Ontario is sown in the fall, which may account somewhat for the difference in quality, but does it entirely account for the superior quality of Manitoba wheat over that grown by the Ontario farmer? Only recently we have had reports on samples of wheat sent from different parts of the Dominion to be tested by the British millers. These reports show that while Manitoba wheat takes the first rank for making flour, Ontario wheat is a long way below the mark for flouring purposes. It would be interesting to know definitely if the wheat grown in the older portions of Manitoba is of as good quality as that grown some few years

ago, when the land was new, and it would also be interesting to know for a fact if the wheat grown twenty-five years ago in Ontario was better for making flour than the wheat grown to-day. If it could be shown definitely that it was not, we would have conclusive proof that the deterioration of wheat from a No. 1 hard to a second grade was due to a change in the soil conditions and to there not being a sufficient quantity of the proper elements in the soil to produce a No. 1 hard. This is something for our wheat-growers to ponder over, and to consider whether it is not possible to so improve the soil conditions in Ontario that even a No. 1 hard may be produced.

In addition to a clean seed being secured, the wheat-grower should select such varieties as have been tried and are known to do well on his soil. Of course it would be wise to try some new variety, but only in small quantities. It would be risky for the farmer to sow a large quantity of some new variety without he has some good guarantee that it will do well. The following table and extracts from the *Ontario Agricultural and Experimental Union* report for 1897 will be of value as showing the leading varieties experimented upon, and their yields:

Varieties.	Yield per acre, 231 tests.	
	Straw. (Tons).	Grain. (Bush).
Dawson's Golden Chaff.....	2.2	33.9
Stewart's Champion.....	2.4	33.7
Early Red Clawson.....	2.1	31.2
Pride of Genesee.....	2.2	31.0
Early Genesee Giant.....	2.1	30.6
Siberian.....	2.3	29.6
Poole.....	1.8	27.5

In the average yield of winter wheat per acre, the Dawson's Golden Chaff stood highest among eleven varieties tested over Ontario in 1893, nine varieties in 1894, nine varieties in 1895, nine varieties in 1896, and seven in 1897, also among fifty-three varieties grown at the Agricultural College for six years in succession.

Three varieties of winter wheat have been tested over Ontario for four years in succession, with the following yields of grain per acre: Dawson's Golden Chaff, 32½ bushels; Early Red Clawson, 29½ bushels; and Early Genesee Giant, 29 1/2 bushels.

Dawson's Golden Chaff and Early Genesee Giant possessed the strongest, and the Pride of Genesee and Siberian the weakest straw in 1897.

The Dawson's Golden Chaff and the Stewart's Champion were the least, and the Pride of Genesee and the Early Genesee Giant were the most affected by rust.

The Stewart's Champion and the Pride of Genesee produced the greatest length of straw.

The Early Red Clawson and the Dawson's Golden Chaff were the first to mature, and the Early Genesee Giant and the Stewart's Champion were the last to mature.

The Dawson's Golden Chaff and the Stewart's Champion produced the plumpest grain, and the Siberian and Poole the most shrunken grain.

Some varieties will do better on some soils than others, and, in making selections, the farmer will have to depend largely upon his own judgment. As a rule, though it is not an absolute one, the white varieties will do better on lighter soils, while the red varieties give better returns on heavier lands. Some of the varieties other than those mentioned above, which have given good results in the past, are the Red Clawson, Manchester White Clawson,

Democrat, Michigan Amber, Seneca, Egyptian, Surprise, etc.

The best time to sow fall wheat is the last week of August or the first week of September. At any rate, the sowing should not be delayed longer than September 15th. Unless there is an exceptional fall for growth, the late sown wheat will not have a chance to stand the winter. As to the quantity of wheat to sow, there is a difference of opinion. Some advise about a bushel and a half per acre, while others advise sowing a larger quantity. It is not necessary to sow as much when the drill is used as otherwise. In growing any kind of grain best results are not obtained by having too many plants growing in a limited area. The successful wheat grower will know from experience what quantity to sow, and every wheat-grower should remember that to grow fall wheat successfully the land must be in a good state of cultivation and a sufficient amount of plant food in the soil to enable the plant to grow and thrive well from the time it sprouts till the ripened grain appears.

The Point of Profit in Keeping Cows.

Dairymen should always remember that a cow never begins to return her owner a profit till after her keep is provided for. Therefore, the dairyman who allows his cows to fall off in their flow of milk at this season of the year, before they have paid for their keep, runs a very poor chance of making a profit out of his cows. It takes the average cow about six months of the year to supply enough milk to pay for her keep, and after that time what she gives is all profit. But if the cow is not surrounded with conditions such as good pastures and plenty of succulent food and pure water it may take her eight months to pay for her keep, and when that time is up she will feel like retiring from the arena of practical milk-giving.

We would therefore advise dairymen to make every effort to maintain the flow of milk and to keep their cows milking for at least ten months of the year. This is the only way of making dairying pay and of getting the greatest profit from keeping cows. Now is the time to look after this part of the business. If the cows shrink at this season in the flow of milk it will be difficult to get them back to the normal output during the fall months, when the price of dairy products usually advances. But how many dairymen look after their cows as they should be looked after at this season of the year? We venture to state that considerably less than half of them do so. Then the larger number of our dairymen are in the business for the fun of it, and not for the purpose of making a profit out of the business.

RAPE FOR YOUNG PIGS.

The feeding of rape to young pigs has been tried with very good results at the Wisconsin Experimental Station. Early in the spring a piece of ground was sown to Dwarf Essex rape, and when the plants were about fifteen inches high, the sow and her litter of spring pigs were turned in with the very best results.

The leaves and stems of the rape

plant furnish the nutriment. On chewing the leaves they taste very much like cabbage, being succulent and quite palatable. It is well-known that rape is an excellent food for sheep and also for cattle. Though if milch cows eat too much, the flavor of the milk is likely to be injured. Pigs cannot be fattened on rape, but it is a good food for young pigs till they are three or four months old. In the early stages of fattening, rape and grain answers well, though in the later stages grain alone is better.

To grow rape successfully a piece of ground should be chosen in which the soil has been made mellow by cultivation. Sow broadcast about three pounds of rapeseed to the acre and cover lightly. When the plants are about fifteen inches high, the hogs, sheep or cattle can be turned in with good results. Rape can be sown any time from the early spring to the first of August. Even after the first of August a little may be sown on some of the fields from which the grain has been taken, and it will give good results for fall feeding.

PRINCE EDWARD ISLAND NOTES.

(By Our Regular Correspondent.)

CHEESE AND BUTTER-FAT.

Cheese-makers and Patrons in this province rely on the butter-fat test as a guide to pay for the milk. It is well known that in Ontario many of the factories are said to be abandoning this system as cumbersome, expensive, and inaccurate. It is now believed that the most variable constituent of milk is the fat; and if the quantity of fat be deducted from the milk solids, the milk solids (not fat) which is a very constant datum, are obtained.

The best way of dealing with the question of watering is to assume a perfectly rigid standard of normal milk, and to treat all departures from it as sophistications. Normal country milk is of such a strength that 100 c.c. contains 9.65 grammes caseine, milk sugar, and ash together, that is to say, of milk solids, not fat. In one centimetre of normal milk there are 9.65-100 grammes of milk solids, not fat. The lactometer is an instrument that is unreliable in testing milk, and the creamometer is at best a treacherous guide. Now as this province is largely interested in the cheese and butter industry, the Government should do something in the way of making tests in the various factories for determining caseine in milk. The albuminoid ammonia process is certainly the quickest process, and is very satisfactory. The butter-fat tests in use here are not satisfactory, as the most of the fat finds its way into the whey tank. The Government might also make tests for saving this valuable article for more profit to the Patrons. What is our local Government doing for the farmer anyhow? Nothing but collecting taxes from him!

CLOVER NOT A PERMANENT FERTILIZER.

The clover question has aroused considerable interest of late. It is acknowledged that the growing of clover and plowing it under as a fertilizer has given good results, but there is a dif-

ference of opinion as to the permanency of this plan. The following by a writer in the *Country Gentleman* on this topic will be of interest:

In the good old days of our forefathers, when land was comparatively new in this country, such articles as fertilizers were unheard of—in fact, they were not needed, and soils produced abundant and paying crops without them. These same large crops, however, were sapping the very life blood from mother earth, but at the same time she was strong and healthy, and the comparatively small drafts upon her made but little impression. A drop of water will wear away a stone in time, and to a certain extent such proved to be the case with the soils and crops. Our forefathers, though, did not experience this, but it was left for those who came after them to suffer the consequences of their neglect.

The first indication of a decline in the productive capacity of our soils was probably most noticeable in the case of clover. Previously ready "catches" and large crops had been the rule, but later on difficulties in getting even a stand began to be experienced. The intelligent farmers realized at once that something was wrong either with their soils or their methods, and they set about therefore to locate the causes and apply the remedies. One point which especially caught their attention was the readiness and vigor with which plants grew on those parts of the field which had been covered with the droppings from animals. They reasoned naturally that the manure returned something which had been taken away from the soil, and the loss of which it was beginning to feel and in fact to show. They, therefore, began to use all the barnyard manure available, and with good results for a time. But barnyard manure did not entirely fill the bill—first, because they could not get enough of it, and second, for the reason that it was lacking in something. For example, when they continued to put heavy doses of it on potatoes they got the most luxuriant growth of vines imaginable, but when they dug for the tubers their hopes were blasted—small in size, few in number, and not of the best quality tell the whole story. This state of affairs indicated that while stable manure was good as far as it went, it did not go quite far enough.

A few of our neighbors were congratulating themselves upon their wonderful results with clover. They simply sowed this crop, got a fine stand, and for a while never failed to gather a fine lot of potatoes from the sod. The clover acted like a fertilizer all by itself, and they continued to sow it without using anything else on their land. By and by, however, even the old reliable clover began to show a little of that "tired" feeling, and seemed to be in need of some stimulant. After experimenting a while, the farm doctors found that land plaster (which is a form of lime) was a splendid tonic for clover; hence the cry arose that "clover and plaster were good enough fertilizers for any land." Subsequent experience, however, failed to confirm even this, and it was necessary to look into this subject further. The agricultural chemists—the men whom we might justly term "soil and plant doctors"—took the matter in hand and solved the whole problem. They found that the earth contains certain food ingredients which the plants feed on. In its virgin condition, the supply of these nourishing substances is abundant, which accounts for the heavy crops which are always gathered on new lands. Continued cropping, though, diminishes these food ingredients until the land in time fails to produce profitable crops; then it becomes necessary to resort to artificial means to restore them.

Thanks to the work of the experiment stations, the means for becoming familiar with the correct use of artificial fertilizers are quite good, and any farmer, with the expenditure of a little time and trouble, can soon ascertain in what manner, and which of the missing ingredients, to apply to advantage. The aim, however, should be not to put on just so much plant-food every year, but by a systematic effort to build up the productive capacity of a soil to its former condition when in a virgin state. While clover in some cases has been the means of exhausting soils, it will at the same time be a valuable agency in restoring the fertility. We now know that this crop has the faculty of gathering nitrogen, the most costly of the three so-called essential fertilizer ingredients, the other two of which are phosphoric acid and potash. If these latter two are supplied to the soil in cheap forms of plant food, like bone or phosphate and potash, the clover in turn will furnish the nitrogen; and by sowing this crop at regular

intervals, it will assist in the restoration of the land.

HOW CAN BACTERIA BE EXCLUDED FROM MILK?

Long before he was told the reason, the practical dairyman learned by experience that cleanliness, thoroughly carried out, enabled him to secure his milk in a satisfactory way. The desired result can, however, be much easier accomplished if we know the sources of bacterial infection. Washing the udder to prevent dislodgment of dust particles, steaming the pails and cans to destroy lurking germ life, rejecting the fore milk, keeping the stable free from dust during the milking, are practical methods that have a rational scientific basis.

Where these methods are conscientiously carried out, good results are to

be obtained with ease. Private dairies that are engaged in supplying the best quality of milk are following such methods with success. For factory purposes, such scrupulous care as is practised in milk dairies would perhaps be considered impractical, but if our factory milk was handled with equally great care the hundreds of thousands of dollars that are annually lost in this state alone, on inferior dairy products, would, for the most part, be saved.

Effect of Chilling on Bacterial Growth of Milk.—Suppose that the greatest care has been taken to secure the milk in as clean a manner as possible. This will reduce the number of bacteria in the same, and yet, if no pains are taken to chill it, the advantage gained will be largely lost. The temperature of the milk as it comes

from the cow approximates blood heat, and, therefore, the conditions are most favorable for bacterial growth. At 80° F. a single organism will form 120 new individuals in four hours, while the development of the same germ would have been so retarded at 50° or 55° F. that but little increase would have taken place. The secret, then, lies in early cooling. If the milk is allowed to cool naturally it loses its animal heat so slowly, especially in a large volume, like a canful, that the bacteria that are contained in it are able to multiply in a vigorous manner. To check this development the milk should be cooled as soon as possible. An early diminution of the temperature is much more efficient in checking growth of germ life than even a longer exposure applied later.—Prof. Russell, in *Hoar's Dairyman*.

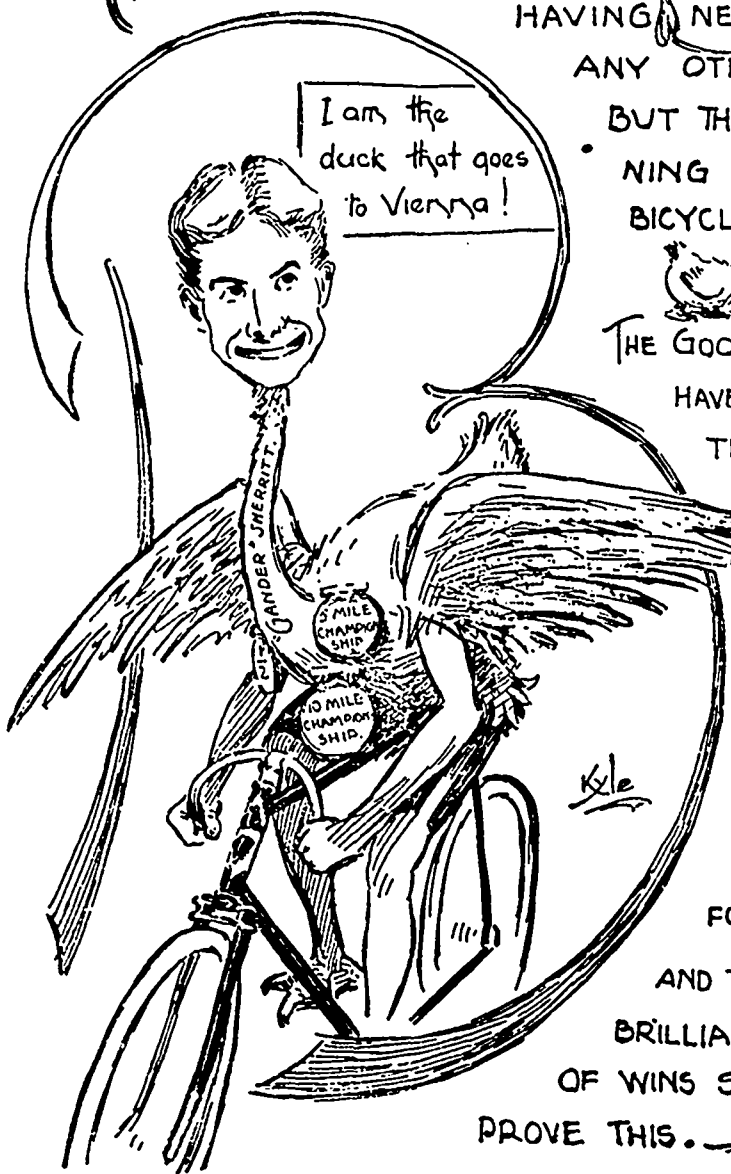
SOMEWHAT PECULIAR, THIS.

IT IS A RATHER FUNNY COINCIDENCE THAT "GANDER" SHERRITT, AS HE IS BEST KNOWN IN BRANTFORD, SHOULD HAVE ATTAINED HIS PRESENT PROMINENCE AS A RIDER ON A **RED BIRD**, HE HAVING NEVER RIDDEN ANY OTHER WHEEL

BUT THIS EASY-RUNNING BRANTFORD BICYCLE.  THE GOULD BICYCLE CO.

HAVE ALWAYS CONTENDED THAT WHEN ANYTHING WORTH WINNING IS WON THE TRICK IS GENERALLY ACCOMPLISHED ON A BRANTFORD RED BIRD, AND THE 'GANDER'S' BRILLIANT SUCCESSION OF WINS SHOULD GO TO

PROVE THIS. 



The Ontario Agricultural Gazette

The Official Bulletin of the Dominion Cattle, Sheep, and Swine Breeders' Associations, and of the Farmers' Institute System of the Province of Ontario.

THE DOMINION CATTLE, SHEEP, AND SWINE BREEDERS' ASSOCIATIONS.

Annual Membership Fees.—Cattle Breeders' \$1, Sheep Breeders' \$1, Swine Breeders' \$2.

BENEFITS OF MEMBERSHIP.

Each member receives a free copy of each publication issued by the Association to which he belongs, during the year in which he is a member. In the case of the Swine Breeders' Association this includes a copy of the Swine Record.

A member of the Swine Breeders' Association is allowed to register pigs at 50c. per head; non-members are charged \$1.00 per head.

A member of the Sheep Breeders' Association is allowed to register sheep at 50c. per head, while non-members are charged \$1.00.

The name and address of each member, and the stock he has for sale, are published once a month. Over 20,000 copies of this directory are mailed monthly. Copies are sent to each Agricultural College and each Experiment Station in Canada and the United States, also to prominent breeders and probable buyers resident in Canada, the United States and elsewhere.

A member of an Association will only be allowed to advertise stock corresponding to the Association to which he belongs; that is, to advertise cattle he must be a member of the Dominion Cattle Breeders' Association, to advertise sheep he must be a member of the Dominion Sheep Breeders' Association, and to advertise swine he must be a member of the Dominion Swine Breeders' Association.

The list of cattle, sheep, and swine for sale will be published in the third issue of each month. Members having stock for sale, in order that they may be included in the Gazette, are required to notify the undersigned by letter on or before the 15th of each month, of the number, breed, age, and sex of the animals. Should a member fail to do this his name will not appear in that issue. The data will be published in the most condensed form.

F. W. HODSON, Secretary.
Parliament Buildings Toronto, Ont.

TO SHIPPERS OF LIVE STOCK FOR MANITOBA AND THE WEST.

The Live Stock Associations will undertake the shipment of another load of pedigreed stock to Manitoba and the West about the last week of September, if a sufficient number of animals to fill a car can be arranged for. Space has already been allotted for two bulls and ten sheep. Intending shippers should correspond at once with F. W. Hodson, secretary, Parliament Buildings, Toronto, for all information.

Farmers' Institute Department.

Reports concerning the work of the Farmers' Institutes in Ontario, will be published weekly under this head; also papers prepared for this department by Institute workers. Secretaries and officers having announcements to make are invited to send full particulars to the Superintendent.

TENT OF SUPERINTENDENT OF FARMERS' INSTITUTES.

The Superintendent of Farmers' Institutes will again have a tent situated on the grounds of the Toronto Industrial Exhibition during the time of holding the fair this year, August 29 to Sept. 10, and will be pleased to meet officers and members of Farmers' Institutes and of the Live Stock Associations, and any person interested in agriculture. Institute workers and others are also invited to make this tent their headquarters while in attendance at the exhibition. Further particulars will be given at a later date.

OFFICERS OF FARMERS' INSTITUTES

The legislative grants for 1898 have been forwarded to the secretary-treasurer of the local institutes. The annual reports this year, with one or two exceptions, have been much more satisfactory than in any previous year and have been received with greater promptness. This is very encouraging, as it is one of the chief means of gauging the amount of interest taken in the institute by the local officers—especially the secretary-treasurer—upon whose efforts the success of the institute in a great measure depends.

There are one or two things, however, to which attention might be drawn. Institute officers should take

sufficient time to read over carefully and thoroughly understand the annual printed announcement regarding the annual meeting. This year it was printed in THE GAZETTE on May 17. In some few cases, if this had been given proper attention, the local officers and the Superintendent would each have been saved considerable trouble and inconvenience. The secretary should also be careful to see that all necessary blanks are filled in properly, and included in the report. Each column on each blank has been placed there for some purpose, the information asked for being required either for the preparation of the annual report of the Superintendent or for the preparation and advertising of the list of meetings for the following season. Each institute is required to hold at least five meetings each year, of which the annual meeting may be counted as one. The annual meeting, then, should be reported on form B, similarly as other meetings held during the year are reported on this blank. There is also a column on form B headed as follows: "Membership for year ending December, 1897." What is asked for is the membership up to the end of the year preceding that in which the report is made. For instance, in sending in the annual report for the year ending the 30th of June, 1898, what is wanted is the membership to the 31st of December, 1897, and it is simply the total membership, not the number of membership received at each meeting that should be reported on the blank. On form C care should be taken to make the report as complete as possible. If the local officers, who have probably lived in the district all their lives cannot or will not give the exact location of any place, how can we who are two or three hundred miles distant arrange the meetings so that they will be most convenient for all concerned? On this blank (C) there is also a column for "days' duration" (of the meeting). It is very important that this information should be given, as some institutes wish for one-half day meetings (one session), others one day meetings (two sessions), while still others wish their meetings to last for two days, or four sessions. Form D is

almost invariably correct. In making out the financial statement it should be carefully noted that the cash on hand corresponds with the balance on hand from the previous year. Miscellaneous items on this blank should be specified in detail.

In conclusion, see that the various blanks are properly filled in at the top with the name of the institute and the date of the annual report; also that each blank is properly dated at the end and receives the signatures of the persons indicated thereon; and finally, send your report on time. No more time is required to complete and mail it than two or three weeks later.

If the above points are noted and acted upon by secretary-treasurers when sending in their annual reports next year, they will find that there is considerably less trouble in connection with the annual report than they have hitherto believed. Try it.

THE COW AND HER CARE.

By Mrs. E. M. JONES, Brockville, Ont.

I have been requested to write this paper, and I will tell you why I respond so cheerfully to the call. When I was a child I often went with my companions to gather wild strawberries, but the berries were scarce and the search was tiresome. If a passing farmer said, "Children, I hear there are good berries in a field over yonder," we gave him doubtful belief, and we did not always go. But, if one of our number who was actually picking berries, called out, "Come, on girls, here is a splendid spot," we just tumbled over each other in our anxiety to get there, and all shared in the good luck. Now, I have found "a good spot" in dairying—a great spot—and I want you all to come on just as fast as you can and share in my luck. My whole life has been spent in dairying, and after struggling through untold difficulties I have attained a great success, and I want others to share it. I look at it in this way: The scrub cow of the country will make 150 pounds of butter a year, selling at an average of 15 to 20 cents. Indeed, I doubt if they do as well as this. My cows make from 300 to 500 pounds of butter a year, which brings me 35 cents a pound the year round, right at my own dairy. Mr. Hodson wants me to tell how I raise and care for these cows, and I am glad to do so, because I think it will put money in your pockets; that is what we all want. I must say here, that I am not a perfect instructor, because the cares of so many children and grandchildren keep me so busy that I simply cannot devote all the time I should to studying out the best methods of feeding and testing, though I do my best. But, do you know, I believe I have been of more use in the world, just because I couldn't be perfect, and do everything exactly as it ought to be done, and I will tell you why. How many farmers are there who have time and ability to carry out all the teachings of our splendid Dairy

Schools? Not many, and I am not competent to teach that small number. I would rather learn from them myself. But there are hundreds and thousands of men and women, placed just as I am, that can't do all they want. Weighed down with other cares and other business and often working at a disadvantage, we can only "read and run," and it is this class that I want to help, because it is this class to which I belong.

If these people see a model farm and dairy, with, perhaps, no end of money to keep it up, they admire it of course, but all the same they get disheartened and say, "We can never reach that, it's no use trying." But when they see a person just like themselves, full of faults, beset with difficulties, and who has got to make it pay, or give it up—when they see such a person make a success of dairying they take heart and say, "Well, we can do it too." I will give you an instance. I was once sewing on the verandah when I saw a farmer and his wife walking up the drive, but they hesitated; I thought they were looking for some other place, and went to meet them, when they said they wished to see the cattle, but were sorry they had come, as they guessed the place here was too fine for poor folks. "Well," I said, "I like to keep the grass cut, and to have a few flowers, and the trees are lovely, but I don't think you will find anything unusual in the barn," and so we went there. They were surprised that we had no stove to warm it in winter—that the cattle wore no blankets, unless going to a fair, that they were on pasture night and day, just like other cows till it got too hot, when they stood in a shady barn during day time, and ate green feed in peace and quiet. That my winter dairy was a concrete cellar, in my house, and my summer one a small building in the back yard, that cost but a few dollars, years ago. Every question they asked was right to the point, and what they wanted to know was, "how to make it pay." At last the man burst out, "Golly, Maria, ain't you glad we came, after all? Why, Mrs. Jones ain't got one thing here that we couldn't have ourselves; and if she can make it pay, I guess we can do it too." And they did. Do you know I was never more pleased. I never felt more certain that the great value of my place and my labors, as an object lesson, lay in all being so plain and simple and homely, and that everyone could do the same.

Now, in telling you how I manage my cows, I don't set up to be infallible; lots of you know more than I do. But many know less, and it is to them I speak. I only want to tell them how I have made things pay, and where they can convict me of mistakes it may be of still greater use to them, in telling them "How not to do it," as I say in my book. I have the calf taken from the dam before it attempts to drink; it is put in a box stall with a good bed and rubbed dry. Here let me say that we keep bulls and all young calves in a different barn from

the cows, and in this building is the large box stall where the cows calve. The reason is, partly, because this building is quieter, but much more because it is nearly of an even temperature. If you turn out thirty or forty milking cows, and leave a very few young calves or a newly-calved cow there, the temperature falls in a surprising way, and these animals get chilled, while in the other barn it is not so. Also, it is better for the herd to have no calving in their midst. We soon offer the calf a pint of her dam's warm milk, and this is put in a tin like a wash-basin, as it is lighter to hold and has no sharp, upright edge like a pail, to press on the calf's throat. Wet the fingers of one hand and put in the calf's mouth; with the other hand raise the basin while gently coaxing the calf's head towards it with your fingers in its mouth. Remember, it is *against nature* for a calf to put its head down to drink, so be patient. Hold the basin well up and don't let the calf get its nostrils under the milk to choke and splutter and splash you all over, and it will soon put its head in a pail and drink itself.

(To be continued).

DUCK AND CHICKEN WEIGHTS.

A well-known poultryman in New Jersey tested the weights of chickens and ducklings at various ages to see whether the increase of growth in the ducks would pay for the increased amount of food they required, which was about twice as much for young ducks as chickens. His reputation should be a guarantee that both were well fed and properly fed on good food. The weights were: Chickens, one week old, 2 ounces; two weeks, 4 ounces; three weeks, 6 1/4 ounces; four weeks, 10 ounces; five weeks, 14 ounces; six weeks, 18 1/2 ounces; seven weeks, 20 1/2 ounces; eight weeks, 2 pounds. Ducks, one week, 4 ounces; two weeks, 9 ounces; three weeks, 1 pound; four weeks, 1 pound 9 ounces; five weeks, 2 pounds 2 ounces; six weeks, 2 pounds 11 ounces; seven weeks, 3 pounds 5 ounces; eight weeks, 4 1/2 pounds. Thus it would seem that upon double the amount of food the duck made more than double the weight. As the prices upon ducks and chickens at that age are not far apart, though usually the young duck sells for a little more, it would seem that the ducks were the more profitable. And yet we think the chicken gave some profit over cost of feed at that age.—*American Cultivator.*

BOOKS AND BULLETINS RECEIVED.

- Bulletin No. 15.* Experimental tree-planting on the plains, by U.S. Department of Agriculture.
- Bulletin No. 67.* Factory tests for milk, by the Agricultural Experimental Station, Madison, Wisconsin.
- Report No. 10.* A report on flax culture for seed and fibre in Europe and America, by the U.S. Department of Agriculture.
- Beet-Sugar Industry.* Special report of the condition of the industry in the United States, prepared by the Department of Agriculture at Washington.
- The Oxford-Down Flock Book.* Volume X. Published by the Oxford-Down Sheep

Breeders' Association. R. Henry Rew, secretary, Westminster, S.W., London, Eng.
Flock Book. National Cheviot Sheep Society. Volumes I. and II. 1898. It contains a history and description of the Cheviot sheep and the rules of the society. The secretary is Howard H Keim, Ladoga, Ind.

CORRESPONDENCE.

THE USE OF FORMALIN TO PREVENT MOULD ON CHEESE.

Editor of FARMING:

I have had many enquiries of late regarding the use of formalin to prevent the growth of mould on cheese in the curing room, and with your permission I would briefly give our experience with it.
 It might be well to explain that formalin is a 40 per cent. solution of formaldehyde gas in water. It is also called formal or formol. As yet is not generally kept by druggists, but any good drug store will procure it on short notice.
 It is being used quite extensively for disinfecting purposes.
 A solution of 10 parts formalin and 90 parts water is effective in preventing the growth of mould on cheese. Possibly less would do, but we have not tried it. In our experiments we have found the best results follow spraying the cheeses as soon as they were placed on the shelves. Prevention is better than cure, and if the formalin is not applied until the mould appears the stains of the mould remain on the cheese, although no further growth occurs.
 For spraying we find an ordinary atomizer used for medicinal purposes—which can be procured at any drug store for from 75c. to \$1—to answer very well. One application was sufficient for three weeks, even when the air in the room contained 95 per cent. of relative humidity, which is higher than cheese-curing rooms are ever likely to be naturally. Cheeses in the same room not treated were simply covered with mould in a few days.
 I would recommend spraying the interiors of cheese and butter factories before the season's operations begin with a one per cent. solution of formalin. A spray pump, such as fruit men use, would be most suitable for this purpose.
 The fumes of formalin, or rather the formaldehyde gas, has a pungent odor and is irritating to the throat and nostrils, but is not injurious. It is better not to allow the pure formalin to come into contact with the skin. It has a very drying action, and the sensation is not a pleasant one.

J. A. RUDDICK,
 Supt. Kingston Dairy School.

THE TORONTO EXHIBITION.

Entries for the principal departments of the Toronto Industrial Exhibition, to be held from August 29th to September 10th, closed on Saturday, the 6th inst. They are of the most encouraging description, but so much money is being given and the classes are so numerous that that's wonderful. Entries for grain, field roots, and horticultural products, do not close until next Saturday, Aug. 13th. For poultry they close on the following Saturday yet again. The bench show prize list has just been issued by Mr. W. P. Fraser, secretary, whose address is Ontario Jockey Club Offices, Leader Lane, Toronto. The prize list calls for \$2,800 in prizes in money and kind, and entries close on Thursday, Aug. 25th. So many and such brilliant attractions as will be offered at the Exhibition this year were never before secured. The entertainment in front of the grand stand will be largely contributed by animals, of which the famous diving elks, Madame Pianka's performing lions, and some clever horses, one of which jumps through hoops of fire, are the most remarkable, although there will be a dog and monkey circus, trick donkeys and mules, and so on. Great preparations are being made for the Foresters' demonstration on Wednesday, Aug. 31st, and for the uniformed drill competition, which is open to all and every order. Two brilliant spectacles, one of which will take place on the lake in front of the grounds in the day-time, and will be made realistic with the co-operation of the soldiers at the Fort, who will spring mines, blow up

the Maine, and destroy Cervera's fleet, as well as fire shot and shell with mortars and quick-firing guns; and the other, to be given at night, the Siege of Santiago, with captive balloons, fireworks galore, and a thousand troops, as well as companies of dancers, are attracting much attention abroad, and they should, for twenty thousand dollars, be spent on them.

CANADA CENTRAL EXHIBITION.

The special attractions at the Ottawa Exhibition this year will be unique and startling. Amongst other specialties provided for the amusement of the public will be a magnificent spectacular and military production representing "The Siege of Delhi," together with a select programme of fireworks interspersed. Altogether it may be stated that the special features will excel all previous efforts in the same direction. Entries for the live stock exhibits close Sept. 13th.

Publishers' Desk.

Grind for Profit.—The Joliette Champion Grinder made by S. Vessot & Co., of Joliette, Que., is claimed to be the best machine made. It does the most work for the least power and saves expense every time.
The Ontario Agricultural College.—The reopening of the college will take place this year on Sept. 26th. Those desiring to enter should apply to the president as early as possible for circulars giving information as to the course of study.

Medicines for Animals and Poultry.—Attention is called to the advertisement of Spratt's Patent Limited, giving a list of their new style remedies for dogs and poultry. These remedies are in the most perfect form possible, and furnish the best medium yet discovered for the administration of drugs to all kinds of pet stock.

Farm Laborers' Excursions.—The Canadian Pacific Railway will run excursions from all stations in Ontario, Toronto and west to Winnipeg, and all stations north, west and south, on August 16th, and from east of Toronto, to and including Sharbot Lake, to the same points in the Northwest, on August 18th. The rates for these excursions are extremely low, viz., \$10 going and \$18 for the return trip. Those seeking employment or intending to visit the Northwest, and desiring further information, should apply to Mr. C. E. McPherson, 1 King street east, Toronto. See the advertisement in our advertising columns.

A MAGNIFICENT PRIZE.

Nearly every reader of FARMING knows The Gurney-Tilden Co., of Hamilton, by reputation at least. Many of them are using their celebrated "Souvenir" stoves and ranges, and have a kindly feeling for the firm in consequence. As one of our lady friends remarked not long ago, "My stove is very properly called a 'Souvenir.' It keeps the makers in kindly remembrance whenever I use it. It is so thoroughly satisfactory." But very few have ever thought an opportunity would be afforded them of obtaining one of these magnificent stoves for nothing, or, rather, for the few minutes work required to write a short description of it. We shall be greatly surprised if the offer which the company make in our advertising columns is not taken advantage of by at least one occupant of every home into which FARMING goes. The prize is a grand one, a trial for it costs nothing, the competition is open to any farmer's wife or daughter who reads the advertisement, and more than one member of the same family may compete if they choose. Who will be the first to try for it? Mr. C. R. McCullough, Principal of the Hamilton Business College, and President of the Galt Business College, will be the chairman of the Essay Examination Committee. It will be noted that there are cash prizes, amounting to \$115 offered in the competition, in addition to the "Souvenir" prize, so that a large number of the competitors will be able to secure substantial results. FARMING suggests that you write direct to the head office of the company in Hamilton for particulars.

STEEL SIDING



For Stores, Houses, Halls, Barns, Sheds, Churches. Entirely water, wind, storm and fire proof. Will last 100 years and always look well. Cheaper than matched Lumber. Shipped from factory all ready to apply. Fully illustrated catalogue sent on request.

The PEDLAR METAL ROOFING CO. Oshawa, Ont.

RHEUMATISM By DR. ROBBINS' RHEUMATIC REMEDY. Positively Cured. Price \$2.00. J. McIntyre, Druggist, Toronto, Ont.

Stock Notes.

A REPRESENTATIVE OF FARMING visited the dairy herd of Mr. Wm. Willis, of Newmarket, recently and found everything in connection with Pine Ridge Farm progressing very favorably indeed. The Pine Ridge Jerseys are looking exceptionally well considering the extremely hot, dry weather and drought, which have prevailed in the Newmarket vicinity for some weeks past. The herd of Mr. Willis consists of eight first class registered Jersey heifers, sired by King of Glenduart (5749), and two heifers sired by 2007, the sweepstakes Jersey bull for two years at the Toronto Industrial. Three of these heifers are due to calve this fall, and all of them are for sale. They are all beauties, and intending purchasers should see this lot before buying elsewhere. Mr. Willis is now milking 12 cows, and though the supply is not so large owing to the drought, it is up to the standard in point of quality. St. Lambert's Florence, one of his best cows, has given 7,000 lbs. of milk during the past eight months, which is a pretty good record indeed.
 Mr. Willis has a fine flock of Cotswold sheep consisting of eight aged ewes, all registered, and four yearling ewes, also registered. There are also one dozen spring lambs in fine shape, sired by the celebrated ram Muggans. This ram is the sire of the four sheep recently sold to Mr. W. W. Wilson, of Muncie, Indiana. These sheep brought an exceptionally good price, one yearling ram bringing the high price of \$50. Mr. Wilson intends exhibiting his purchases at some of the leading American Fairs, and says that the above lot are the finest sheep he has ever taken out of Canada. This speaks well for the quality of Canadian sheep.

BUY **Coleman's Salt** THE BEST

For Dairy or Table Use

IT IS UNEQUALLED.

Salt on the Farm for wire worm, joint worm, army worm and all insects that destroy crops. Salt is the best insecticide. It is also a fertilizer.

TRY IT. **R. & J. Ransford, CLINTON ONT**

MARKET REVIEW AND FORECAST.

Office of FARMING,

44 and 46 Richmond street W., Toronto.
Aug. 5th, 1898.

The midsummer lull in trade circles continues, though it is expected that it will not be of long duration, and a good, healthy fall trade is confidently looked forward to. A few weeks ago there were very serious complaints in certain districts of the drought, but it seems to have been broken by showers, which have benefitted late grains, roots and pastures very much. The general outlook is bright, and it is seldom that the prospects for fall trade were ever so bright as they are at present.

Wheat.

The wheat situation is getting into more definite shape, and operators have more substantial grounds upon which to base their calculations than they had a week or two ago. The reports published a while ago indicating big crops seem to be confirmed in nearly every case, and the world is now face to face with one of its greatest wheat crops. The situation at present would seem to mean lower prices instead of higher, though the heavy drafts which will have to be made on the new crop earlier than usual may help to steady values somewhat. The world's supply of old wheat in sight is now 32,013,000 bushels, as compared with 30,054,000 bushels at the same time a year ago.

Conservative estimates place the total output for the United States at 700,000,000 bushels. The English crop is estimated to be 10,000,000 to 16,000,000 bushels greater than last year. It is now probable that France will not need to import wheat during 1898-99. From Hungary, Germany, Russia, and, in fact, nearly the whole of Europe, come reports of a big crop in prospect. All through Canada there will be a big wheat yield. Therefore the present position of wheat is one not very conducive to big prices whatever the future may bring forth.

The London market is quiet, and sales have been made during the week at 3d. to 6d. per quarter lower. Ontario red winter wheat is being freely offered. The quality of the new Ontario winter wheat is fine, and several cars of this wheat which arrived in Montreal during the week weighed 63 lbs. to the bushel, and the grain was large and plump, and as hard and dry as old wheat. Sales of new red winter wheat have been made at Montreal for export at 74c. to 75c. laid down there. Manitoba is quoted there at 93c. to 94c. afloat. Cars of new red and white are quoted here at 64c. to 65c. west, and are bidding from 62c. to 63c. Old wheat is selling at about 66c. Manitoba is quoted at from 87c. to 88c. Fort William, and at 98c. Toronto.

Oats and Barley.

The London market is firmer and higher for oats, with a good demand at an advance of fully 1s. to 1s. 6d. per quarter. The Montreal market is quiet, but steady at from 32c. to 32½c. afloat. Receipts there have been pretty liberal, but stocks are not accumulating. Cars of white, west, are quoted here at about 26c., and the market is steady.

There is no business being done in barley. Montreal quotations are 36c. to 38c. for feed, and 45c. to 50c. for malting.

Peas and Corn.

A further advance of 9d. per quarter has taken place in the London pea market and the market is firm with stocks light. The drought has affected the Ontario pea crop in many places. The Montreal market keeps firm and receipts are dwindling very fast. Holders are asking 65c. afloat, and quotations are 63c. to 64c. There has not been a steady demand here, and quotations are from 52c. to 54c.

The Montreal corn market is quiet and lower at 38c. to 39c. for No. 2 Chicago laid down there. Cars on track are quoted at 43c. to 44c. The Toronto market is quiet at present and Canadian yellow in car lots is quoted at 33c. to 34c., and American here at 40c.

Bran and Shorts.

These are quiet here at \$8.50 to \$9 for bran west, and \$13 to \$14 for shorts. At Montreal Ontario bran is quiet at \$11.50 to \$12. Shorts are easier at \$14.50 to \$15.50.

Eggs and Poultry.

Owing to a falling off in receipts from nearly every quarter there is an upward tendency

in prices the London egg market, and still higher prices are looked for. Canadian eggs are quoted in Liverpool at 6s. 3d. to 6d. 9d. per 120. The egg business is brisk at Montreal, sales of choice candled fresh stock selling at 10½c. to 11c. A lot of P. E. Island eggs sold during the week at 10c. Fresh gathered newly laid eggs have sold as high as 14c. to 15c., and choice large shipping eggs have sold at 12c. to 13c., culled are quoted at 8½c. to 9c. Though receipts have been large here the best stock cannot be obtained under 10½c. to 11½c.

There is very little fowl coming forward. Turkeys here are quoted at 9c. to 10c. per lb.; chickens at 40c. to 55c. per pair, and ducks 50c. to 55c.

Potatoes.

There are no old potatoes coming in here. Quotations for these are from 40c. to 55c. per bag. The supply of new potatoes has been more liberal and the market has an easier tendency at from 50c. to 65c. per bag.

Hay and Straw.

Though this year's hay crop is much superior in quality to last year's it is not likely to bring any better price, if as high a price. There is an abundant crop. Sales of new hay are reported at Montreal at equal to \$3.75 per ton laid down there. It is estimated that Quebec will have from 300,000 to 400,000 tons of this year's crop to ship. Baled hay is easy. Sales of old hay have been made at \$3.50 to \$4.50 per ton. Choice No. 1 old hay is quoted at Montreal at \$8 to \$9, but there is none of this quality to be had. The market here is somewhat similar and the quotations for strictly choice baled hay are \$7.50 to \$8 in car lots, No. 2 brings \$6.50 to \$7. Baled straw in car lots is quoted at \$4.50 to \$5.

Fruit.

The apple crop is likely to turn out better than was predicted a few weeks ago. Though there will not be an abundant crop it will likely be much larger than last year. Reports from the Western States indicate a small crop, but New York and the Eastern States are likely to make up for the shortage in the West. The crop in Great Britain will, it is reported, be small and a large quantity will be required from Canada and the United States. Very few apples are coming into Montreal and quotations are 30c. to 35c. per basket and \$2 to \$2.50 per barrel. Canadian peaches are quoted here at 25c. to 40c. per basket and apples at 20c. to 35c. per basket.

Cheese.

The London market is reported firm at the recent advance, and stocks have been considerably reduced by increased consumption, due to low prices. Holders are a good deal firmer in their views, and are not pushing sales. Quotations for finest Canadian cheese are from 39s. 6d. to 40s. 6d. c.i.f. The public cable is 37s. 6d. There is a decidedly better feeling on this side also, and, though the market just now is thought to be largely speculative in some quarters, we are of the opinion that this advance and firmer feeling are due to the regular laws of supply and demand, and are likely to be permanent. The total shipments continue to show marked falling off as compared with last year. Up to July 30th the shipments from Montreal show a decrease of 202,398 boxes as against the same period last year, and the shipments from New York a decrease of 129,509 boxes, or a total decrease from New York and Montreal, up to July 30th, of 331,907 boxes. This large decrease is having some effect upon the market, and may be the direct cause of the upward tendency in prices. The drought experienced in many of the dairy sections has shortened the supply of milk at the factories, and will have a further tendency to stiffen prices. At the local markets last week prices ranged from 7½c. to 7¾c., a slight advance over the week previous. There is a steadier feeling at Montreal, and holders are asking 7¾c. to 8c. for finest western colored, and 7¾c. for finest western whites. Factorymen seem more inclined to sell.

Butter.

The creamery butter market is decidedly firmer than a few weeks ago, and considerable business has been done in choice fresh creamery in boxes at Montreal at 17c. to 17½c. and the same class of creamery in tubs will bring 16½c. to 17c. Well-kept June goods have sold at 17c. to 17½c., second grades and June cold storage goods sell at 16c. to 16½c. In the country 16½c. and 17c. have been freely offered for finest fresh made cream-

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DEAR SIRS,—Enclosed find settlement for the Separator and oil received from you on May 28th. I placed the Separator on trial with Mr. S. D. Wilkinson, Leamington, and after 4 days he bought it. He is perfectly satisfied. I have tested the skim milk several times for him and it has never shown more than a trace of butter fat. I consider it a perfect machine in every respect and would like to act as your agent in this part of the county. Mr. Wilkinson is one of the most prominent dairymen around here. He says he will save enough in butter to pay for the Separator in 4 months. Yours truly, (Signed) F. A. LEAK.

Write RICHARDSON & WEBSTER, St. Mary's, Ont., for Catalogue and Prices. It will pay you to have a Separator as well as others.

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ST. MARY'S, ONT.

ery. At this time last year prices for fine fresh creamery ruled at 17c. to 17½c. The London market is steady with lighter receipts and reduced stocks prices have advanced 1s. to 2s. per cwt. Sales of Canadian creamery are reported at 82s. to 86s. Finest Canadian butter is 2s. higher at Manchester.

The total shipments from New York and Montreal up to July 29th show a falling off of 49,825 boxes as compared with the same period last year. This falling off, together with the shrinkage in the make at the creameries owing to the drought in many places, should tend to keep up prices and make the market steady for the balance of the season. Many operators, however, consider the present condition of the market speculative and only temporary.

Dairy butter at Montreal sell for from 13½c. to 14c. in round lots with a fair enquiry for more. Though there is a good supply of dairy butter here the demand is good. Choice dairy tubs bring from 12c. to 12½c., medium to good 10c. to 11c., dairy rolls are 14½c. to 15c. for choice. Creamery prints bring 18c. to 19c. and tubs 15½c. to 16½c.

Wool.

The wool situation at Boston is a little more favorable, and buyers and sellers are looking forward to better business. The market here is in a somewhat unsatisfactory condition, and there is not much business doing. Quotations are 10c. to 10½c. for unwashed, 16c. for select combing, and 17c. for clothing. There is thought to be considerable wool held in the country.

Cattle.

The cattle situation does not show much change. At Buffalo and one or two other American markets good butchers' cattle were a little higher during the week, while export cattle were dull. The advance in butchers' cattle was due to few arrivals, and is of a temporary character. The London market is lower by 2d. per stone of 8 lbs. Supplies from the United States are liberal.

Export Cattle.—Things are quiet here in export cattle. On Friday's market, owing to exporters having space to fill on board ship, there was a brisker demand, and prices ruled slightly better. The ruling prices during the week were from 4¼c. to 4½c. per lb. Export bulls sell for from 3½c. to 4¼c. per lb.

Butchers' Cattle.—The market for these was firmer on Friday, but early in the week they were somewhat of a drag. The ruling prices for choice quality have been from \$4.20 to \$4.40 per cwt. Good cattle sold, however, at 4c., but poor and common went as low as 3c. to 3½c. per lb. Choice cattle are in demand, but poor stuff is hard to get rid of.

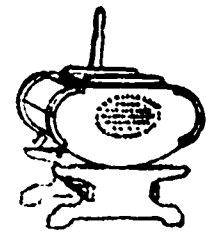
Stockers and Feeders.—These are quiet, owing largely to an easier feeling in Buffalo. Light stockers bring from 3c. to 3½c. per lb., and half-fat steers from 3½c. to 4c.

Calf.—Are steady at from \$3 to \$7 each. Choice veals are wanted.

Milk Cows and Springers.—These are a little easier and prices range from \$20 to \$40 each.

Sheep and Lambs.

The London sheep market is steady, though there have been large receipts of frozen mutton lately. The Buffalo market was generally stronger during the week, and the general tone of the trade is steady with prospects fair for good grades. Sheep are scarce and yearlings firm. The market here has been somewhat dull, though on Friday, owing to small supplies, export sheep were a little higher, and sold from \$3.30 to \$3.40 per cwt. Lambs are steady at \$3 to \$3.50 each. Bucks fetch 2½c. to 2¾c. per lb.



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Hogs.

There have been large marketings at the Western markets and prices have gradually declined about 10c. per cwt. The market here continues firm with another slight advance for the best selection of bacon hogs. On Friday these brought from \$6 to \$6.10 per cwt. Corn fed hogs are not wanted. Light fat hogs bring from \$5.45 to \$5.50, and thick fat from \$5 to \$5.20.

Horses.

The Buffalo market has been somewhat of a drag of late. The attendance of buyers has been large, but they are not willing to pay high prices. Though supplies have been large at Chicago, prices continue good for fine horses, the domestic and foreign demand is surprisingly good.

ANTI-ELEVATOR ASSOCIATION FORMED.

The opponents of the Anti-Elevator Monopoly in Manitoba and the Northwest Territories have formed an organization for the promotion of their interests, and hereafter will work together after some definite plan to secure some redress from elevator monopolies, etc. At a meeting held in Winnipeg recently, there was a large attendance of those in sympathy with the movement to organize. In the resolution setting forth the main object of the association, which is the abolition of the elevator monopoly, it is stated that the organization will exercise every reasonable effort to protect the just rights of the producer and shippers of grain in the western country. The president of the new organization is Mr. W. A. Robinson, Elva, Manitoba, and the secretary-treasurer, Mr. W. C. Graham, of Winnipeg.

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We will also give \$115 in cash prizes for the first four best descriptive essays on the Souvenirs and their work. These prizes are open to all classes.

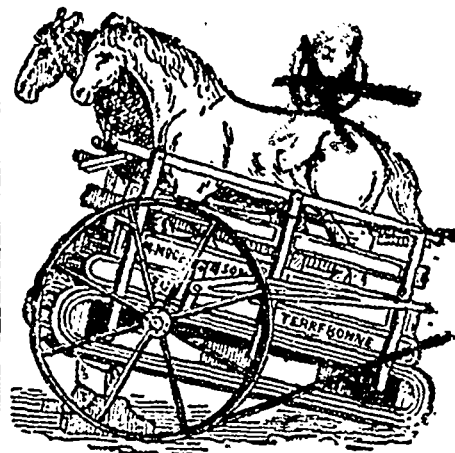
We would like YOU to be one who would write in this essay contest. If, perchance, you do not own a Souvenir, your neighbor is almost sure to have one. In any case, write us for booklet, telling specially the story of Souvenir Stoves, and call on the local agent in your nearest town and have him give—as he will gladly do—a description of the special points of this wonderfully successful stove. Circulars giving all particulars of contest free.

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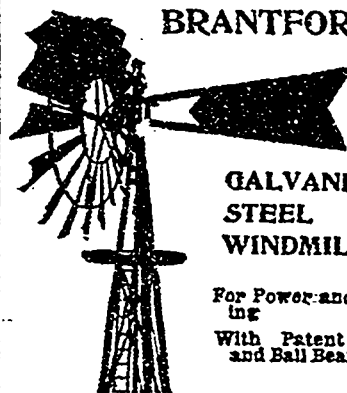
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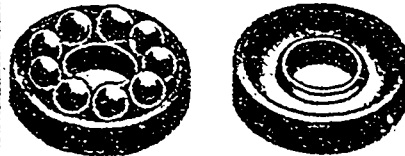
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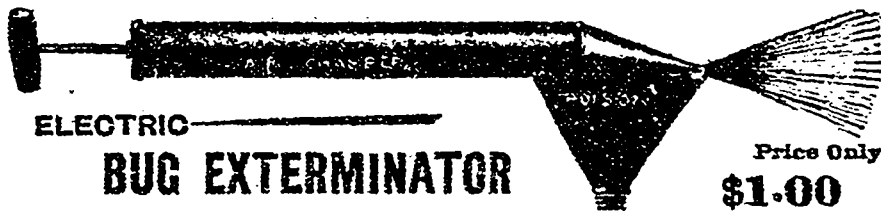
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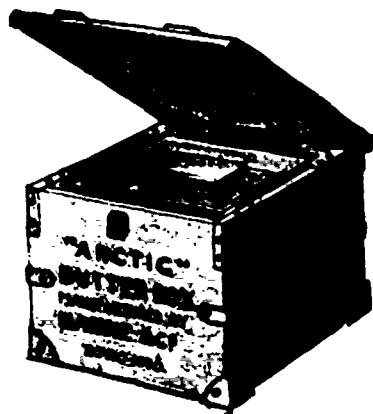
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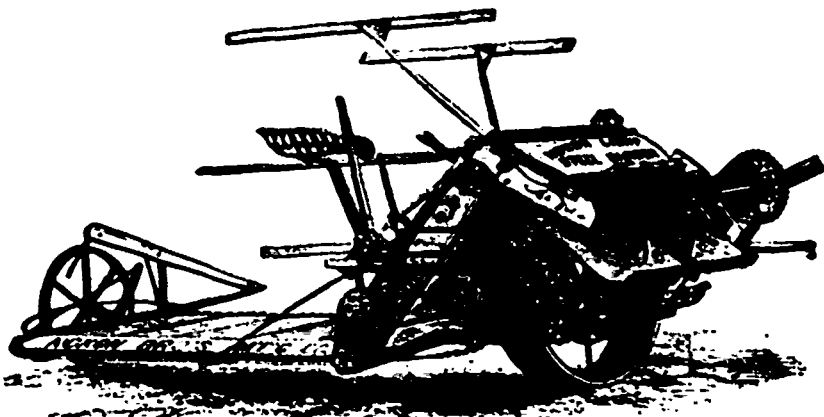
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