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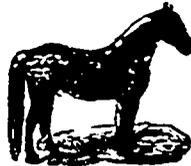
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D. DERBYSHIRE, BROCKVILLE

...LEADING TOPICS FOR THE WEEK...

Our Export Butter Trade. Dealing in Futures. Manitoba's Klondike. Road Improvement. Sheep Raising on a Large Scale. Blending Butter in France. The Condensed Milk Business. Swine Products. The Creamery Shark. Canada's Dairymen. Notes and Ideas. Canadian Jersey Breeders' Association. Cheviot Sheep Breeders' Association. Market Review and Forecast.

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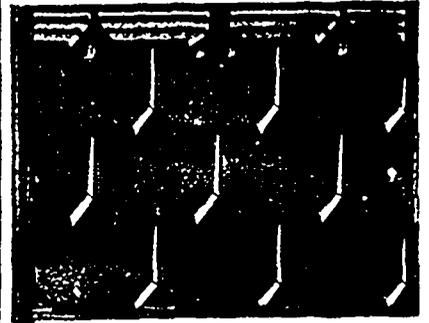
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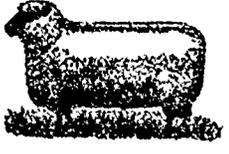
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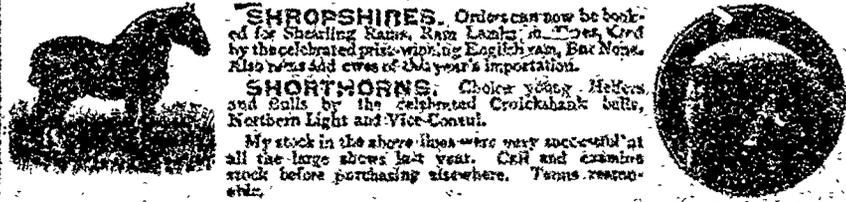
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FARMING

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JANUARY 11TH, 1898.

No. 19.

FARMING

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

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TOPICS FOR THE WEEK.

Our Export Butter Trade.

In Great Britain to-day the word "Canada," as applied to cheese means a high standard of quality. Though the same cannot be said in respect to butter, yet in reality the very finest quality of butter is made in Canada. No other country in the world has any better conditions for the production of good butter than Canada, and if every pound of butter made is not of the finest quality, it is because our dairymen are not living up to the opportunities which they possess. If our dairymen do not understand the best methods of caring for and feeding their cows so as to realize the highest profit, or of caring for the milk so as to make the finest quality of cheese, or butter, let them attend one of the dairy conventions to be held during the next fortnight, if more knowledge is required regarding the best practices in cheese and butter-making let them take a course at some one of the dairy schools in the province. There is no valid reason why everyone

interested in the developing of our export butter trade should not be thoroughly acquainted with the business from the feeding and caring for the cow which produces the milk to the making of that milk into the finest quality of butter. We know, however, that there are hundreds engaged in dairying to-day who do not take advantage of these opportunities. They cling to old and obsolete practices that are incompatible with good quality. To develop our butter export trade the quality must be the best.

Another important point to be considered in developing our export butter trade with Great Britain is that a regular supply must be sent forward. We are afraid that many dairymen do not fully realize the importance of this feature of the trade. Nevertheless, it is true. We must be prepared to send the British dealer a regular supply if we wish him to buy Canadian butter. Every creamery man knows, who contracts butter to any of our local dealers, that he must send a regular supply if he wishes to retain the dealer as a customer. The same reasoning holds good in regard to our export trade. If we make a bargain with an old country dealer to send him Canadian butter we must be prepared to send over a regular supply or he will not be willing to trade with us. To send over butter for a month or two, and then discontinue for a while will not suffice. If we undertake the business we must send forward a regular supply during the season if we wish to build up an important export trade in Canadian butter. If the trade is once established, and the British consumer can rely on getting his supply regularly, the price will not fluctuate as much as it does now, when only very irregular shipments are made.

Another requisite in developing our export trade in butter is to have an attractive package that will attract the consumer, and to be able to send forward the butter in the same condition as when it leaves the creamery. These things the trade is pretty well supplied with, and with a little improvement in the line of cold storage facilities at the creameries, the transportation arrangements should be satisfactory. Then with the quality perfect, with preparations made for a regular supply and with transportation facilities complete, there should be no reason why our export butter trade should not in a few years equal our export trade in cheese.

Dealing in Futures.

WITH SPECIAL REFERENCE TO THE CHEESE TRADE.

There is one branch of Canadian trade upon which this kind of dealing seems to be gradually getting a grip. We refer to the cheese trade. For years buying and selling cheese that, at the time of the sale, is not in possession of the seller has been carried on to a greater or less extent. During some seasons this kind of business has worked both to the injury of the producer and the consumer. In fact we believe there are but very few instances where dealing in cheese that is not in sight nor even made has been of any benefit to the producer. If the shipper on this side, who sells cheese for future delivery, which he does not possess, makes well by the transaction the English buyer who purchased the goods must suffer a loss from the fact that cheese has become cheaper and he could procure it at a much less cost if he had not made the bargain. On the other hand, if cheese goes up the shipper will lose and the English purchaser will profit by the transaction. So the speculation in future cheese as in future wheat will neither benefit the producer or the consumer. In fact it will be a positive injury to the trade rather than a blessing, as the dealer

on either side if he loses will not be so ready to do business afterwards.

At the last session of the Dominion Parliament a bill was drafted by a Quebec member asking for legislation to prevent the selling of butter or cheese not in existence or owned by the seller. The bill did not come before the House owing to the lack of time and because it was thought wise to get the opinion of dairymen in regard to the question. The bill will likely come up at the next session in February. The bill is concise and to the point and is clothed in simple and trite terms. The following are the essential features of the bill:

"Every one who, by himself or through the agency of another person, (a) sells, or (b) offers to sell, or (c) agrees to sell, or (d) agrees to offer to sell, any butter or cheese which at the time such sale, offer or agreement is made, has not been manufactured and is not his property or the property of some person for whom he is duly authorized to act, is guilty of an offence, and liable, on summary conviction, to the following penalties:

(a) For a first offence, to a fine not exceeding five hundred dollars or imprisonment, with or without hard labor, for not more than three months, or to both such fine and imprisonment.

(b) For a second, and any subsequent offence, to a fine not exceeding one thousand dollars, or to imprisonment, with or without hard labor, for not more than six months, or to both such fine and imprisonment.

Nothing herein shall be deemed to prohibit any person who is duly authorized to act for the person or persons who supply milk to any dairy or butter or cheese factory, from selling or offering to sell or agreeing to sell, any butter or cheese to be manufactured at such dairy or cheese factory or butter factory."

The bill will probably meet with opposition in some quarters. The factorymen, however, should support it, as it will be in their interests to do so. It would be better for all concerned if all business were done on a purely legitimate basis, and have all goods sold on their merits when ready for the market. Why should a person sell goods which he has not in his possession, or which are not even in existence? It will be of no particular advantage to anyone to do business in that way. When the goods are in sight those in the trade know the character of the goods they have to deal with and the element of uncertainty is removed. It is always the speculative or uncertain element that makes engaging in all kinds of trade precarious. If this could be eliminated, business would then run in its proper channels with greater advantage to both the producer and consumer, who are the principal parties to be considered. This will apply to the cheese and butter trade as well as to that of wheat, which is causing so much interest in the west at the present time.

It is to be hoped that the dairymen at the conventions to be held this week and next, will have an opportunity of expressing their opinion regarding this proposed legislation.

Road Improvement.

The movement for road improvement is becoming more wide-spread every year. In the United States much has been done during the past few years towards educating citizens along this line. The question has been taken up by the leading journals, and prominent men in nearly every walk of life are giving their time and money to advance the cause. Every section of the country is seek

ing information and endeavoring to bring about some improvement in the country roads.

In Ontario the movement has kept pace with the advances made in other lands, and during the past two years a definite and comprehensive plan of imparting instruction has been carried on by the Local Government under the direct guidance of a competent road instructor. When the movement began the desire for information came chiefly from the rural districts, and the work of giving instruction was carried on mostly through the Farmers' Institutes and dairy conventions. Within the last year or two, however, the towns and cities have become interested, and are, perhaps, utilizing the services of the Provincial Road Instructor in a more practical way than the rural districts.

That a vast improvement in many of our country roads and city streets is a necessity goes without saying. There is hardly a township, town, or city, in the whole province in which the roads or streets do not need to be improved. When we think of the miles and miles of roadways in the rural districts, and the numbers of streets in our towns and cities that need improvement, the question becomes very far-reaching indeed. The Good Roads Association of the Province and the Provincial Road Instructor and his staff, have a large task before them. However, from the energy displayed so far in disseminating useful information, these factors seem to indicate that they are able to cope with the situation.

It is estimated that there are 300,000 miles of highways in the United States, which is about 20 per cent. of the roadways of the world. Great Britain has 120,000 miles of roadways, and these are the best in the world. Germany has 275,000 miles of roads, and, strange to say, that country, so renowned for scientific and modern advancement, has some of as poor roads as they could very well be. France has a larger mileage of roadway than any other country in the world, being 330,000 miles, and has taken an enlightened view of the good roads question for many years. More than \$1,000,000,000 have been spent in road improvement in that country during recent years. Russia, with an enormous area, has only 70,000 miles of roadways, while Italy, a much smaller country, has 55,000 miles. As a rule the European highways are in much better condition than the American highways. It is estimated that it would be necessary to build about 1,000,000 miles of macadamized roads in the United States in order to have as good a system of public highways as is found in several European countries. At \$4,000 a mile this would involve an outlay of \$4,000,000,000, which is a pretty large sum.

It will thus be seen that to improve our roadways a large expenditure is necessary, in order that they may be made equal to the roadways of European countries. No one, however, expects that our roads can be put in such a good condition at once. The expenditure must be gradual, and a definite plan of improvement carried on. One good feature of the present method of imparting instruction in Ontario is its uniformity. By getting all the townships and cities working along some definite uniform plan a uniformity in road improvement will be secured. One of the bad features of the statute labor system of the province is the lack of uniformity in its methods of working.

Manitoba's "Klondike"

In conversation recently with the Hon. Thomas Greenway he pointed out how easy it was for a young man to pay for a farm in Manitoba. As a case in point, Mr. Greenway stated that last spring he rented a neighboring farm, upon which considerable plowing had been done, and sowed it to wheat. The wheat yielded twenty bushels per acre, and was sold by Mr. Greenway for 75 cents per bushel, making the gross receipts per acre \$15. The land already plowed was rented by Mr. Greenway for \$3 per acre. The cost of sowing, supplying seed, harvesting, threshing, etc., amounted to \$6 per acre, or \$9 per acre for total cost. This left a clear profit of \$6 per acre. In the fall this

farm was sold for \$6 per acre, or for an amount equal to the actual profit which Mr. Greenway realized from one season's wheat crop. Other instances of a similar kind are given where a farm in Manitoba can be paid for by the net profit from one year's wheat crop, *i. e.*, if the year is a favorable one, as last year was.

There is perhaps no other country in the world where a similar opportunity is afforded of paying for a farm so easily. A country that offers such advantages does not need a gold mine in order to enable its people to become wealthy. The past year has, perhaps, been one of the best on record for the Manitoba farmer, and will enable him to recover from the depression of the two previous years. Manitoba is without doubt one of the best wheat producing countries in the world, and if the season is at all favorable there is big money in farming in the Prairie Province. During the past few years of bad crops and low prices the Manitoba farmer has been turning his attention more to stock-raising and dairying; but it is expected that the good crops and high prices of the past season will have the effect of directing more attention to grain growing. In that case stock raising and dairying will be left more to the farmer of the older provinces. Mr. Greenway reports, however, that dairying is progressing in Manitoba, especially the butter-making branch, as is also stock raising. 1898, therefore, opens up very bright for the Prairie Province, and the coming season should see a large influx of settlers. All Canada will rejoice at the prospect. For what is good for one portion of the Dominion is good for the whole.

The Condensed Milk Business.

Condensed milk factories in some countries seem to return large dividends to the shareholders as well as to those who supply milk. A condensed milk company in Ireland pays annually £20,000 in dividends to its stockholders. The condensed milk factories in the United States are also very remunerative and are excellent investments. In some States in the West, manufacturing condensed milk is one of the main industries in the dairy sections.

Very little has been done in Canada towards developing this branch of dairying. Besides the factory at Truro, N.S., and at one or two other points, no extended effort has been made to develop the business. At one or two points in Ontario condensed milk factories were started a few years ago. These, whether owing to lack of capital, mismanagement or ignorance of how to carry on the business, were not successful.

It is very difficult to get accurate information as to the manner of operating condensed milk factories. Those in the business seem loth to impart any information regarding the business. Some few years ago we had occasion to visit several condensed milk factories, both in Canada and the United States, but failed to get any definite idea as to the process or method of working, owing to the disposition on the part of those in charge not to reveal anything. This may be wise, but such tactics often lead outsiders to wrong conclusions. Many, because of this attitude on the part of those already in the business, come to the conclusion that the business is very profitable.

However that may be, there is no doubt that the business is a profitable one when the producer has free access to the large cities of Europe and the United States. Canada may not be so favorably situated as some other countries for the development of a home market, but why would it not be a profitable business to cater to the export trade in this regard? We have splendid facilities for producing good milk and at comparatively low cost, and it might be possible to produce condensed milk at a profit to both the manufacturer and the person who supplies the milk. Such a business would go well in conjunction with the butter business in some sections. The business is worth looking into, and some of our enterprising dairymen should take the matter in hand.

Swine Products.

The following extract from the *Montreal Trade Bulletin* sums up the situation regarding the future of our bacon industry very well:

"If the present high price of dressed hogs continues, it is claimed by packers here that they will not be able to compete with American mess pork. For instance, Chicago mess pork can be laid down here for about \$15, while Canada short cut cannot be produced under \$16 or \$16.50 on the basis of the present price of dressed hogs in this market. The price of hogs in Canada now appears to be ruled more by the English market, the kind now raised being much lighter than formerly, and more suitable for the curing of lean bacon, which is wanted for the English trade, than turning them into mess pork. Consequently, the heavy hogs that in former years were raised for making mess pork for the home trade have been supplanted by lighter and leaner hogs for the curing of bacon for the export trade, and therefore if the price of dressed hogs keep at their present comparatively high level, Canada will import more American mess pork and export more bacon and hams. It remains to be seen, however, if the price of hogs will be maintained owing to the scarcity, which some maintain, exists in the country. Until now there has been no suitable weather for killing, and from this out the nature of the supply of the different hog sections of Canada will be tested."

Whether the scarcity of hogs exists, as intimated, it is hard to say. The fact that prices for dressed pork is higher here than in the United States is a sure sign that Canadian bacon has the preference in the British market. Prices here are governed more by the export demand than by the prices in the west. And this feature of the situation is growing more marked every year.

Sheep Raising on a Large Scale.

Canadian farmers can hardly realize the vast extent of some of the Australian sheep ranches. One of the largest sheep raisers in that country is Mr. Samuel McCaughney, who will shear 1,250,000 sheep this season. His yearly average of lambs is from 300,000 to 400,000. He has 600,000 sheep on a fenced farm of 1,500,000 acres in one district, 400,000 in another, and so on distributing his flock in many sections.

Mr. McCaughney realizes the importance of giving special attention to improving his flock year by year, and to this end imports largely of rams from the State of Vermont every year. By improving the quality of his sheep by breeding, he has increased the annual wool output of the flock one pound per sheep, or a total of \$500,000 per annum.

What will apply to sheep raising on a large scale is just as applicable to the smallest sheep farmer. Whether many or few sheep are kept, an effort should be made to keep only the very best. The aim should be to keep the kind of sheep that combines both the mutton producing and wool producing qualities. We are afraid that many Canadian sheep raisers do not give as much attention to this part of the business as they should. Too many of them allow their sheep to look after themselves. Though sheep need less care than any other animal on the farm, they need some attention in order to do well.

Blending Butter in France.

The system of blending butter is carried to a somewhat high art in France. When the butter arrives at some central point it is graded into two or three qualities. The very best grades are sent to Paris. The others are put through a kind of process which expels superfluous butter-milk and allows of more salt being added, and sometimes coloring matter. An expert judge is always on hand to test the graded butter, and to state when the blending process has been sufficiently carried on.

There are two main objects to be accomplished by this process. The first one is to procure a uniform quality in the butter and to eliminate the but-

ter-milk and water. When the butter has been thoroughly worked, salted and colored, the best quality is weighed into rolls. The rolls are placed upright in wooden boxes—holding a dozen—in a linen cloth. When the boxes are filled the lid is nailed on, and they are taken at once to a freezing chamber. They remain here for three hours when the butter becomes frozen. The second quality of butter is packed in tubs.

Blending the butter may be all right for France, but the Canadian method of blending butter in the country store has not proven very satisfactory. Instead of getting a good quality, where good and bad butter were mixed together, the whole thing became bad when so mixed.

Making Beet Sugar on the Farm.

There is an impression abroad in some sections that beet sugar can be made at home by the farmer who grows the beets, just as he can make sugar from the maple. Although a certain quality of beet sugar can be made, yet it is very crude and in such an unrefined state as to be very unpalatable. The following letter and reply from the chief chemist of the United States Department of Agriculture, gives some idea of the value of beet sugar in this regard, and shows that only pure refined beet sugar has any commercial value:

November 2, 1897.

Dr. H. W. Wiley, Chief Chemist, United States Department of Agriculture, Washington, D.C.:

SIR,—The *Epitomist* appeals to you as authority on the subject of sugar making from sugar beets, and asks for such information as you may be willing to furnish, for publication in relation to some process by which farmers may produce beet sugar at home in a small way for their own use.

It is hoped that this information, which you are so well equipped to furnish to the public, may enable the man with a cider or fruit press and a few pots and kettles to do something for himself in this line of work, while awaiting the slow development of the beet sugar industry on a larger scale.

We have heard a story of your experiments with sorghum as a boy on your father's farm, and may there not be embryo scientists now to be stimulated by the new sugar movement?

Trusting that you will consider our appeal as *pro bono publica*, we are, dear sir,

Most sincerely yours,

EPITOMIST PUBLISHING COMPANY.

United States Department of Agriculture, Division of Chemistry,
Washington, D.C., Nov. 9th, 1897.

The *Epitomist* Pub. Co., Indianapolis, Ind.:

GENTLEMEN,—I have your letter of the 2nd inst., asking me for an expression of opinion in regard to some process by which farmers may produce beet sugar at home in a small way for their own use. In reply, permit me to say that the production of a crude beet sugar in a small way is an extremely simple process. Any farmer who is equipped with a cider mill for rasping the beets, a cider press for expressing the juice, and an evaporator suitable for making sorghum molasses, can produce a crude beet sugar. As a rule, this sugar will not be very palatable, because it is not refined, and contains the salts and bitter principles which make raw beet sugar and beet molasses, as a rule, unfit for table use. It will be, however, an interesting object lesson to our farmers to demonstrate the fact that the sugar beet itself contains sugar, and that the latter can be made in the crude way I have mentioned above. In this way the making of sugar in a small way by farmers may prove a stimulus to the industry and do great good. Farmers, however, should not be deceived by the expectation of being able to make their sugar in a successful way commercially. The successful and profitable manufacture of sugar can only be accomplished in expensive factories, equipped with all the appliances necessary to make a pure refined sugar. Only the pure refined beet sugar can ever become an article of commerce. In this the beet differs from the sugar cane, because the latter will give a sugar which, even in the crude state, is pal-

atable and marketable; in fact, many people prefer crude cane sugar to the refined article on account of its containing the aromatic principles of the cane, which give it an odor and flavor very acceptable to most palates. I trust that any of your readers who may undertake the manufacture of beet sugar in the crude way I have mentioned above may do so only from the point of view indicated, and not with the expectation of making it a commercial success.

I am, respectfully,

H. W. WILEY, Chief of Division.

The Creamery "Shark."

Of late years the creamery "shark" has not been very much in evidence in Canada. Some years ago in several sections of Ontario many farmers were "duped" by these smooth-tongued fellows into paying from \$2,000 to \$3,000 more for their creamery plant than they would have had to pay a legitimate Canadian dairy supply firm. They have learned a lesson since then, and consequently the creamery "shark" has not had so much to do of late. Prof. Jordon, of the New York Experimental Station, who is to address the Western Dairymen's Convention at London next week, describes one of the creamery "shark's" favorite methods, as follows:

"One of the worst features of this whole business is that there can generally be found local men, with whom the farmers are acquainted and in whom the farmers place more or less confidence, who are willing, after having been given a little stock, to use their influence in deceiving the farmers into a bad business enterprise. No words of condemnation are too severe to be applied to men who consent, for so small a price, to do their neighbors injury."

Early Maturity of Cattle in Britain.

One feature of the live stock displays at the leading stock shows in Great Britain is the early maturity of the animals as compared with some years ago. The following extract from the London *Live Stock Journal* shows what a change has come over some of the leading live stock exhibitions in this regard:

"Looking back over the Smithfield and Birmingham meetings of the last eight or ten years, it will at once be perceived that a very decided change has been effected in the aspect of the live stock displays. Within that period—a brief one in the history of stock-breeding—astonishing progress has been recorded on the early-maturity principle, and the emphatic advancement on these lines has been the means of, or has occurred simultaneously with, conspicuous changes in various diverging directions. No longer do the huge three and four-year-old bullocks occupy the prominent position and constitute the attractive feature they have done in years gone by. They are not, even now, wholly excluded from either exhibition, but in both they have been quietly shunted into miscellaneous classes in out-of-the-way corners, and offered no material encouragement. Strange as it may seem, opinion was by no means undivided as to the advisability of displacing the old mature oxen by animals of more tender years in the leading classes at these shows. Yet no evidence or argument that could be adduced in support of their retention was of any avail in staying the strongly-flowing tide in favor of the early-maturity system. Even sentiment, which probably as much as any other and more tangible reason actuated the adherents of the old customs, was ruthlessly swept aside by the rapidly moving current, and the doom of the wonder-inspiring monsters was finally sealed after the 1895 meeting. For the first time at Smithfield the old overgrown bullocks were last year relegated to the nondescript butchers' or extra classes and debarred from participating in the championship contests. At Birmingham this rule had been in force for several years previously, so that the action of the Smithfield Club was not altogether of an experimental character, and no one was in the least surprised that the important alteration passed into effect smoothly, and without apparent lamentation."

NOTES AND IDEAS.

Professor McLaughlin Young, Aberdeen, Scotland, is authority for the statement that tuberculosis is disseminated by infection rather than by heredity. In cases where the disease seems to be hereditary it is largely due to force of circumstances and lack of hygiene. The available figures Professor Young stated, proved that at birth, tuberculosis was rare in both children and cattle. His conclusions are that heredity plays a small part in the spread of the disease, and that the large majority of the cases are caused by infection.

* * *

In nearly every civilized country the number of cows is increasing every year. In France the number of cows increases 200,000 every ten years. In Denmark, in 1871, the number of cows was 807,000; in 1894 it was upwards of one million. The increase in Austria in ten years was 116,000, and in Germany 127,000. In the United States the number of cows has risen from 9 millions to 16½ millions in twenty-three years. In Canada a proportionate increase is noticeable, and in Australia the horned cattle increased from 8¾ million head to 11¾ millions in five years. There is also in Great Britain a large increase every year. For the year ending June, 1897, the number was 25,000 in excess of that of the previous year.

* * *

A definite plan is necessary in all kinds of work. It is just as necessary on the farm as in the workshop. No farmer can succeed unless he has some definite plan which he proposes to follow in carrying on his farming operations. This is as necessary in regard to the feeding, breeding, and raising of stock as in carrying out the rotation of crops. A "go-as-you-please" method of farming will never bring success.

CANADA'S DAIRYMEN.

D. Derbyshire, Brockville, Ont.

To speak of dairying in Eastern Ontario, or in fact, to speak of Canadian dairying without associating the name of D. Derbyshire is to make a very grave mistake indeed. Mr. Derbyshire has for many years been intimately connected with the dairy industry of the province. His presence is almost a necessity at a dairyman's convention in order to insure its success.

Mr. Derbyshire was born in the county of Leeds in 1846, and commenced farming at Plum Hollow in that county in 1869. Like most of the young men of his time he secured his early education at the Public School, and his present wide knowledge of dairy matters is due to his own perseverance and push. In 1873 Mr. Derbyshire began the manufacture of cheese at Plum Hollow. The business proving successful he built additional factories at South Mountain, Inkerman and Winchester, and in a few years was operating seven factories.

In 1878, an opening in a wider sphere offered itself and Mr. Derbyshire having disposed of his cheese manufacturing business, went to Brockville as the representative of A. A. Ayer & Co., cheese and butter exporters of Montreal, where he has continued to be a large operator in the butter and cheese market ever since. In connection with his business as a buyer Mr. Derbyshire established a large dairy supply business, which he still carries on.

Mr. Derbyshire has been honored many times by being elected to the principal public offices in his native county. For five successive years he was elected reeve of his native township. He served as Alderman for eight years in the city of Brockville, and for two years filled the responsible position of Mayor.

But it is in connection with the dairy organizations of the Province that Mr. Derbyshire's executive ability has been more fully recognized. In 1879 he was elected second vice-president of the Dairyman's Association of Eastern Ontario and continued to occupy a place upon the board of directors till the organization of the Ontario Creameries Association in 1885, when he transferred his energies to the latter organization. In 1883 and 1884 he was president of the Eastern Association. For nine years he was president of the Ontario Creameries Association, and it is not too much to state that the good work which that association accomplished towards developing the butter industry of the Province was largely due to the energy and ability of its president. Upon the amalgamation of the Creameries Association and the Eastern and Western Dairymen's Associations a year ago, Mr. Derbyshire was elected president of the new Butter and Cheese Association of Eastern Ontario, which position he now holds. The first annual convention of this association takes place at Lindsay, Ont., on Tuesday, Wednesday and Thursday of this week, and we bespeak for that important organization a large and enthusiastic gathering, which it richly deserves.

ADVANTAGES AND DISADVANTAGES OF MODERN METHODS OF POULTRY CULTURE.*

Almost every one now realizes the great importance of the poultry industry. Although rapidly extended of late, this country (the United States) still uses more eggs and poultry meat than it produces. England pays \$50,000,000 a year for what she imports from other countries. Russia has won the lion's share of this trade. Other European countries get some of it, and even Australia sends eggs to England. Canada not only produces her own poultry and eggs, but sends quantities to England. As yet, the United States is practically out of it. The Government Agricultural Department is opening up a market for American butter in England. How about the foreign egg trade? Why should not the United States take a good share of it? Our home market for poultry products may not yet have become so congested as that for dairy products, but it will be easier to win the foreign market now than later. It is cheaper to ship poultry and eggs to England than corn and wheat; besides, these products will not impoverish our land.

Although Massachusetts farmers are working hard to make money, this State does not produce but a part of the eggs it requires. Millions of dollars' worth are brought from other States. It is the same in Rhode Island. We do not want to sell our eggs for what Western eggs will bring, but we are not compelled to do so. We can deliver them when fresh. If of the highest quality, they will also bring an extra price. The eastern farmer can surely make money on poultry. How can he best do it and compete with the western farmer who has such cheap grain? Most people think there is very little to poultry production, until they take it up as business; then, after a few years, they change their opinions, and realize they must thoroughly know the business to succeed.

Those who undertake to teach them almost always have stock they want to sell, and they are generally fanciers and pure breed breeders rather than poultry farmers. Even editors do not like to publish the faults of the different breeds, as it offends their admirers. The public really has hard work to get at the facts. The inexperienced have to try half a dozen breeds to learn which are most suitable, and then may not know. Thousands repeat the same experiments. This would be needless if the reliable experiences of a few were made public. A great expense would be saved the country. The methods taught in most poultry papers are suited to the fancier, rather than adapted to the poultry farmer. Too many agricultural papers have simply echoed the teachings of the fanciers' papers.

The commercial end of the poultry industry, representing a permanent interest in the United States of two hundred and forty millions, certainly is worthy of attention. As with market gardening, boot manufacturing, and other lines of business, the specialist, the large producer, is getting a grip on the business, and taking it away from the small operator. But there is a chance for the farmer in poultry pro-

*Abstract of lecture delivered by Samuel Cushman, of Pawtucket, R.I., at the annual winter meeting of the Massachusetts State Board of Agriculture.

duction. The more complicated the poultry specialist makes his business, the more skill it requires, and the greater the chances of failure. The risks are greater, as well as the profits. He uses breeds adapted to a special purpose; buildings planned to save labor, secure sanitary conditions, and best protect the stock; follows the best methods of feeding, and, above all, has a well defined plan that is adhered to and carried out in every detail. He is thus enabled to secure at a slight cost the very best product, even when there is the greatest scarcity and when it will bring the very highest price.

Each season the different breeds of fowl are being improved for their special purposes, and new information gained as to best and cheapest methods of feeding and management. Therefore, the up-to-date man must constantly study the problem.

I do not believe that it is best for the farmer to undertake to follow the specialist; or that he can produce poultry and eggs cheaper and with less risk. The farther you go from the old methods, the more work you must do and the greater the chances of disease. The old pioneers did not have to take the precautions against disease that people in cities do now. If you keep large numbers and follow improved methods, your obstacles are greater.

The specialist who confines his flocks in yards and provides all their feed the year around, may get a greater product than if they were allowed free range, but fowls thus cooped are wholly dependent upon their keepers. If he does not give them fresh water, meat, gravel and green food, they suffer. If the yards and houses get foul they cannot get away and must breathe the foul air. Such neglect the specialist cannot be guilty of and be successful, but it has been my experience that many farmers, who attempt to improve, do this very thing. Those who take up advance methods, build modern buildings, get good breeds and then fail to carry out the details, are worse off than if they were following old methods.

I have seen men who kept bees try to improve and have a similar experience. They understood just how to keep them in the old box hives, and made a little honey and money every year. They made no great thing out of it, but as far as it went it was pretty sure. A few years after they took up modern methods there were no bees on their place. It was not the fault of the new hives or methods. They had simply gone further than they understood, and did not carry out the details. So my advice to the farmer who wants to progress, is to adopt the stock and management and buildings best suited to his circumstances. It is better even to keep bees in box hives, or poultry in the old way, than to strike too high a key and fail entirely.

(To be continued.)

THE WESTERN DAIRYMEN'S CONVENTION.

The annual convention is to be held in London on January 19, 20, and 21, 1898. A good programme has been prepared. Besides addresses from leading dairymen in Canada, Prof. W. H. Jordan, director of the N.Y. Experiment Station, and Mr. H. B. Gurler of Deklab, Ill., have promised to attend and deliver addresses.

CHANGE OF ENVIRONMENT.

GEORGE RICE, CURRIE, ONT.

Under the above head in your issue of Dec. 28th, page 133, we find some very sensible remarks which I desire to endorse. Kindness always pays, and with a dairy cow more than anything else, there is nothing a cow likes better than a good brushing, but don't scratch her. Long ago I dispensed with the use of a dog, for my cows will come as far as they can hear my voice, when at pasture; and not being accustomed to a dog they are very much afraid of one. It struck me, when reading this article, that we sometimes "save at the spigot and waste at the bughole."

In the recent dairy test at Brantford, we had dogs in all parts of the building, some tied there, yelping all the time, others passing along, and one ran between my cow's legs when I was milking. Now, in the name of common sense should this be allowed? True, the directors said the dogs should not be in, still they came. We were told to kick them out, we did kick one, but he velped so it made matters worse.

All thoughtful dairymen will admit it is an outrage to allow dogs around the cows—excitement always affects the amount of butter fat given. It will not do to say that all cows are under similar conditions, as some cows are more highly strung than others. Besides our work is compared with records made in other tests where such unfavorable conditions are not met with. It is hoped that the officials who have charge of the dairy test will see that all these things are looked after another year.

There are other matters, too, in connection with these tests that could be managed a great deal better—for one thing, more supervisors are necessary, to see fair play.

Under the best of management, there is much for a cow to contend with in these tests, especially the best cows. People are continually handling them and this causes an unnatural disturbance; but if the show is to have an educational effect this cannot very well be helped.

We have never been able to get in a show ground test anything like a normal test for butter fat. Some days are worse than others. At the same time we have got as much and a little more milk than we got the week previous at home. We can make the milk but cannot control the fat, as that depends upon the nervous organization of the cow. We get more milk following a shrinkage in the percentage of fat; because the cow's system is not taxed so heavily.

We had our sweepstakes cow, Calamity Jane, officially tested for a week previous to the provincial test, and in another article I will endeavor to show the difference between a home test under strict supervision and a public test.

QUESTIONS AND ANSWERS.

A. J. C., Arnprior: (1) What are the false teeth in young pigs? At what age should they be removed, and when will the true teeth come?

(2) In the old country they alter young sows that are not wanted for breeding purposes. How is it done?

(3) Last September I had two litters of

pigs, one twelve, the other ten in number. The litter of twelve did very well, but of the litter of ten only four lived. When they were ten or twelve days old they took some disease. First their nose would get stopped up, and one side of the face would swell up, the breathing would become difficult and their flanks drawn up. Both sows and litters received the same kind of feed. What was the matter with them?

Ans.: (1) The false teeth as you call them are the temporary teeth or milk teeth, and like the first teeth of all animals will drop out of them selves, and others grow in their place without any attention from you. You do not need to knock them out.

(2) The operation of altering or spaying young sows consists in removing the ovaries, the seat of the seasons of heat. An incision is made from the outside and the ovaries are drawn out with the finger. It would be useless to give a detailed explanation, as it would be impossible for you to follow it. Many a man can do this work, and it is best to get practical lessons from some one that knows how to do it.

(3) Your description of the disease is so indefinite that we cannot say what it was. It might have been due to the sow. In such cases it is always best to consult a veterinary if one is near at hand.

CANADIAN JERSEY BREEDERS' ASSOCIATION.

The annual meeting of the Canadian Jersey Breeders' Association was held December 31st, in the Albion Hotel, Toronto. A number of breeders were present from different parts of the province, among whom were J. H. Smith, R. Davies, R. J. Fleming, B. H. Bull, Capt. Rolph, R. Willis, S. Weeks, John O'Brien, D. Duncan, R. Reid, W. H. MacCartney, W. E. H. Massey, and others.

In the absence of the secretary, Capt. Rolph was appointed secretary *pro tem*. After the reading of the minutes, the election of officers was proceeded with and resulted as follows: President, B. H. Bull, Brantford; vice-president, J. H. Smith, Highfield; secretary-treasurer, R. Reid, Berlin; Board of Management, Messrs. R. J. Fleming, E. H. Duncan, W. H. MacCartney, R. Willis, D. O. Bull; delegates to Industrial Board, Capt. Rolph, D. Duncan; to Western Fair Board, John O'Brien; to Ottawa Fair, J. H. Fife and W. Conroy; judges at Toronto Industrial, J. C. Snell and Geo. O. Green; at London, R. McCullough and Prof. Day.

It was decided that all cows be milked out at 7 o'clock the evening before being judged.

Considerable enthusiasm was manifested throughout the meeting over the "Dairy Queen," and a determined effort will be made during the year to interest every man in the Dominion who owns a Jersey cow, in the association. The meeting adjourned to accept the kind invitation of Mr. W. E. H. Massey to visit his barns and Jersey herd. Nearly all present availed themselves of the opportunity, and a very pleasant and profitable time was spent; all being delighted with the unbounded hospitality of Mr. Massey.

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 Breeders will be published in the first issue of each month, of Sheep Breeders in the second issue, and of Swine Breeders in the third issue. Members having stock for sale, in order that it may be included in the HULLETIN, are required to notify the undersigned, by letter, at least seven days before the date of issue, of the number, breed, age and sex of the animal. Should a member fail to do this, only his name and address will appear in the next monthly issue. The data will be published in the most condensed form.

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

THE DOMINION SHEEP BREEDERS' ASSOCIATION.

Lincolns.	
Gibson & Walker	Densfield
Gould, G. & Son	Rutherford
Humphrey, E. & Co.	Thamesford
Stevens, R. W.	Lambeth
Oliver, W.	Avonbank
1 ram 2 years; imported ewes, ewe and ram lambs	
Cotswolds.	
Allen, George	Oriel
Brown, J. I.	Uxbridge
Ficht, Val.	Oriel
McCrae, D.	Guelph
Parks, J.	Burgessville
Russell, J.	Richmond Hill
Honey, R.	Brickley
Linton, W.	Aurora
1 ram 2 years, 1 shearing ewe, 2 ewe lambs; 1 ram lamb	
1 imported ram; ram lambs	
Leicesters.	
Arniour, Andrew	Dunnville
Armstrong, G. B.	Teeswater
Benning, D.	Williamstown
Blais, A. & J.	Glen Sandfield
Campbell, J. K.	Palmerston
Currelley, T. & Son	Fullarton
Gardhouse, J. M.	Highfield
Smith, J. S.	Maple Lodge
Wood, C. & E.	Freeman
6 ewe lambs, 4 ram lambs	
A number of young ewes	
Shropshires.	
Bentley, W. H.	Wilton Grove
Brown, A.	Picton
Calder, C.	Brooklin
Campbell, J.	Woodville
Conworth, J.	Paris
Davies, R.	Toronto
Dickin, J.	Milton West
Donaldson, W.	South Zorra
Elliott, A.	Galt
Ganton, D. G.	Saurin
McFarlane, Jas.	Clinton
Miller, R.	Brougham
50 imported shearing ewes; ewe and ram lambs	
50 ewe lambs; 100 ram lambs; 2 yearling ewes	
Oxfords.	
Finlayson, Kenneth	Campbellton
Hines, R. J.	Dutton
Jull, J. H.	Mt. Vernon
Terrill, A.	Wooler
Tolson, J.	Walkerton
Lerner, E.	Burford
Wright, H.	Guelph
1 imported ram	
Southdowns.	
Rutherford, John	Roseville
Shopland, J. S.	Maywood, R.C.
Smith, W. M. & J. C.	Fairfield Plains
Telfer, A. & Son	Paris
Stock, all ages, both sexes	
Dorset Horns.	
McKellar, J.	Avonton
Rutherford, J. E.	Kemptville
Stonehouse, W.	Wyoming
2 ram lambs	
Ewes; lambs, both sexes	
2 rams	
Merinos.	
Smith, W. M. & J. C.	Fairfield Plains
Hampshires.	
Kelly, J.	Shakespeare
Suffolks.	
Thompson, J.	Mildmay
Rudd, W. J.	Eden Mills
Stock, all ages, both sexes	
Miscellaneous.	
Hobson, J. I.	Guelph
Moore, J. D., M.P.P.	Galt
Wightman, R. Owen Sound	

SCHEDULE OF LIVE STOCK MEETINGS TO BE HELD THE SECOND WEEK IN FEBRUARY.

On Tuesday, the 8th of February, a meeting of the Shire Horse Breeders' Association will be held at 11 a.m. at the Albion Hotel; Clydesdale Horse Breeders' Association meeting, same day, at Albion Hotel at 2 p.m., and a

meeting of the Directors of the Short Horn Breeders' Association, the same day, at the Albion Hotel at 8 p.m. The annual meeting of the Short Horn Breeders' Association will be held on Wednesday, the 9th of February, at 11 a.m. in Shaftesbury Hall, Queen street west, and on the same day the annual meeting of the Canadian Horse Breeders' Association at

the Albion Hotel at 8 p.m., then on Thursday, the 10th of February, at 2 p.m., the annual meeting of the Yorkshire Breeders' Association.

HENRY WADE,
 Secretary.

Ontario Agricultural College.

Announcements concerning the College will be published weekly under this head.

ANALYSIS OF SUGAR BEETS.

By R. HANCOURT, Asst. Chemist, O.A.C.

During the latter part of November we analyzed forty samples of sugar beets which had been grown under the direction of the Owen Sound Sugar Manufacturing Co. The results of the analyses prove the beets to be of a very good quality. The average composition of the expressed juice of the forty samples is as follows: Solids, 18.8 per cent.; sugar, 14.8 per cent.; purity coefficient, 79.7. Average weight of the beets 1.5 lbs. Dr. Wiley, of the United States Department of Agriculture, gives the following as a standard of comparison:

"I would say that a typical sugar beet for sugar making purposes should weigh 600 grammes, (1.3 lbs.), contain 14 per cent. sugar, and have a purity of at least 80." It will be seen that the Owen Sound beets come well up to the standard. Continuing, Dr. Wiley says: "With such raw material at his disposal in sufficient quantity, the manufacturer cannot fail of success, provided he be supplied with the latest and most improved forms of machinery."

THE PREVENTION OF PARTURIENT APOPLEXY IN COWS.

By J. HUGO REED, Professor of Veterinary Science, O.A.C.

Parturient apoplexy (commonly, but erroneously, called milk fever) in cows is the cause of serious losses in dairy herds, and frequently in other classes. Pathologists differ as to the nature and causes of the disease, but these are points which we will not now discuss. It is a disease that is peculiar to cows in the parturient state. It appears at variable periods after parturition, usually from three to four hours to as many days, and in some cases much later, and in rare instances during, or even preceding, the act. It occurs in cows that are heavy milkers or are in high flesh, or in those which, though low in flesh, have been highly fed for a few days or weeks before calving. It is a disease that does not readily yield to treatment, a large percentage of the cases proving fatal under the most energetic and skilful treatment, especially when occurring shortly after calving. When we are aware of the fatality of the disease and the conditions which favor its occurrence, we can readily understand that preventive measures are much more satisfactory than curative.

Prevention consists in reducing the cow's condition as the period of parturition approaches. This is done by limiting the quantity and quality of the food. Not, of course, giving food of poorer quality, but that which is

not calculated to increase the flow of milk, and in such quantities as to not increase plethora. If it be during the season when the cattle are on pasture and the grass is plentiful, she should be put in the stable for, say, two weeks before calving, and fed on a limited supply of dry food. Three or four days before calving, she should be given a brisk purgative, say, one to two pounds Epsom salts, and immediately after calving the dose should be repeated, and the supply of food limited for four or five days longer, when it will be safe to feed so as to cause a large flow of milk. The cow should be kept in comfortable quarters, cold draughts should be avoided, and she should not be allowed cold water to drink for two or three days after parturition. Opinions differ as to the advisability of milking the animal out thoroughly for a few days, but at all events a sufficient quantity of milk should be drawn to prevent inflammation of the udder, or else the calf should be allowed to suckle the dam. My experience has been that cows treated in this way will not suffer from the disease, but there may be exceptions. However, there is no doubt that even though the disease should occur after such treatment, it will the more readily yield to curative treatment. It certainly is not necessary to subject all cows to the above treatment, as in many cases there is little or no danger of the disease, but in well-fed cattle, especially of the milking breeds, after the second calf the danger is imminent. And when we understand the conditions which render certain animals particularly susceptible to an attack, we can readily recognize the wisdom of adopting preventive measures.

HOW MAY THE FARMERS' INSTITUTE SYSTEM OF ONTARIO BE IMPROVED AND MADE MORE HELPFUL TO THE FARMERS OF THIS PROVINCE?

The above enquiry has been sent to a number of successful Institute workers-residing in various sections of the province. Farmers everywhere are invited to consider the question, and send their views in writing to F. W. Hodson, Superintendent Farmers' Institutes, Parliament Buildings, Toronto. The following are among the replies received:

I believe it to be an unnecessary expense to send more than two on a delegation to address Institute meetings. Two average addresses, and intelligent discussion of the same, usually take up all available time at any session. If only two speakers form a deputation, more opportunity is afforded local men to take part. I believe that one man of the right stamp is sufficient to attend supplementaries, to act more as a director or referee than a lecturer. Discussion, above all things, is desirable, and as a rule, with a large delegation, discussion and local men are crowded out. It is necessary that delegates be men of practical

cal experience, men who have been successful in their chosen lines, and also men of enthusiasm in their calling. Next to being able to express themselves *clearly and briefly*, I think they must be enthusiastic and able to communicate some of that desirable quality to those they address. I believe the time is not far distant when during the January vacation the professors from the Ontario Agricultural College could profitably hold sessions on special subjects for perhaps a week at a time in central points, and invite classes of young men to attend the course daily. I would very much like to see this started next winter, if only in one place. Take one of our most enterprising Institutes and ask the officers to select the most suitable place, use every endeavor to secure an attendance, especially of young farmers; let them select the subject they desire to have brought forward, then send them one of your most suitable teachers for say a week. I believe it would be a success as an educator. I have often wondered if you have ever tried to get reduced rates on the railways for delegates. It seems to be reasonable that it should be obtained.

ANDREW ELLIOTT, Galt.

I might note a few places where I think improvement could be made in Farmers' Institutes. First, I think the secretary should be better paid than he usually is, and then we could expect more work to be done by him, which would add to the interest of the Institute. I think our present system of advertising the meetings could be greatly improved. I would suggest that in addition to the posters put up in central places, twenty five programmes should be mailed to each school in the locality of the meeting to distribute among the pupils; also say two hundred programmes be mailed to all prominent farmers within ten miles of the meeting; also that an advertisement be put in the local papers. In the second place, I would suggest that a greater effort be made by each director and officer of the Institute to increase the membership, not only on the day of the meeting, but every day of the year, at all large gatherings, a few tickets should be carried and sold. In the third place, I consider it very important to have a genial, live, and up-to-date secretary. Fourthly, my experience goes to prove that three delegates are too many for any meeting. Two good men, with the local help in the way of papers, etc., with several good men to lead in discussions, and a nice musical programme for the evening, is all that can be got in, keeping the meetings late at that. The last two meetings that we held here, Mr. Wm. Rennie, of the Ontario Agricultural College, Guelph, was the only speaker from a distance, in fact, the only speaker on the programme outside of our local talent. Notwithstanding our secretary being ill we had magnificent meetings, rolling up a good membership, in fact, I could not get through with the programme in any of the sessions. I believe the audience would listen to Mr. Rennie on the subject of "Restoring the Fertility of the Soil" for half a day at a time. When Mr. Rennie was through speaking I never knew when I could call on the next speaker for the flood of questions he would have to answer. If you send him back to our part he

may just as well come alone, for the impression he left at the last two meetings would ensure him crowded houses, and he would be expected to occupy most of the time. I might say in connection with our Agricultural Society, it has been my privilege to be president of the South Victoria Agricultural Society, which has brought me in touch with the workings of the same, and led me to the conclusion that it would be far better to do away with the Township Fairs and hold one County Fair, where the prizes could be much better and far less time lost than is lost by attending so many small Fairs. Since the Central Institute has been done away with I think it would be well to have one day at the Toronto Industrial, when the officers of the Farmers' Institutes would meet and be addressed by yourself and others in connection with Institute work.

J. F. DIX, Little Britain.

Where it is at all possible the plan of sending only two delegates has been adopted, but it is sometimes necessary to send three on account of peculiarities in the Division, or because of a desire to give an untried speaker an opportunity of proving what he or she can do. It is not advisable or desirable to place an untried person on a deputation as one of two, no matter how well that person is recommended. As Superintendent, I will run no risk in this way, knowing as I do the importance of suitable speakers, still I realize the desirability of trying new material. The very best is what is wanted. In a short Division one speaker is enough to attend supplementary meetings, as Mr. Elliott says; but when a Division numbers from eighteen to twenty meetings, of from two to four sessions each, then one speaker is not enough. First, because specialists must be employed in this work, and no specialist that I know of is capable of meeting acceptably the requirements of each Institute in a large Division, therefore two men must be sent. It is cheaper to send two men to a large Division than one man to a very small one. Institute officers are only expected to choose the subjects suitable to their district. Second, for economical and other very important reasons, it is necessary to make the Division large. If a man were qualified to go to one of these Divisions alone, the work is too much for one man, and the risk from illness and accident too great.

Mr. Elliott's suggestion that a continued meeting be held at one place is an excellent one and well worthy of careful consideration.

Mr. Dix hits the nail on the head when he says many secretaries are not well enough paid. In the Institute Report of 1895-6, page 12, I wrote on this as follows: "There is no general system regarding the payment of secretaries and other officers. Some Institutes are paying an ample sum for services rendered; others are paying too little. This is a matter that must be left entirely in the control of the local officers; yet it is desirable that, if possible, a uniform system be adopted throughout the province. The following plan is respectfully suggested:

If the Institute has a membership of fifty that the secretary receive \$10 annually and all legitimate expenses while

attending meetings, whether of the Institute, the directors, or the executive officers. In addition to this, he may receive \$5 for each additional fifty persons who join the Institute. By this plan an Institute with a membership of 200 will pay its secretary \$25 net for his services. As a rule, the success or failure of an Institute depends on the secretary. If an Institute has a good secretary it will flourish; if the secretary is not up to the mark the Institute will sooner or later go to the wall; therefore, the best available man should be chosen for this position, and he should be liberally dealt with.

Many of the presidents and directors are now doing a good work for which they receive no remuneration; and they often have to pay their own expenses. It is not necessary for the directors to meet frequently; probably once or twice a year is often enough, viz., just before and just after the annual meeting; but the executive officers (see clauses 9 and 55, A. & R.) should meet much more frequently; and if the funds of the Institute will allow of it, they should be paid their actual expenses while attending meetings or when engaged in Institute work. In order to increase the membership and interest each district should be canvassed annually, as provided for in clause 53, A. & R. In order to meet the expenses of each director so engaged a commission of 25 per cent. may be allowed on each subscription taken by him in the section of the township he represents. In a thickly settled district an industrious man should take at least twenty names a day. His commission would be \$1.25. Officers whose expenses are paid otherwise than by commission should be required to exercise strict economy. A statement of all such expenses should be presented in detail at the annual meeting. If an officer's expenses are paid while attending a meeting he should not be allowed commission and expenses also. This system has been laid before the officers of most of the Institutes in the Province, 80 per cent. of which have endorsed the principle. Others opposed it, but none has suggested a better method. The objections to this plan are recognized, but a better method has not been discovered, though diligent enquiry has been made. The percentages, etc., given above are used as examples only. Institutes which adopt the plan of paying secretaries, etc., should fix the percentages, etc., according to local conditions.

SUCCESSFUL INSTITUTE MEETINGS.

Mr. John Robertson, Ingersoll, who is addressing Institute meetings in the eastern part of the province, reports: With two or three exceptions, our meetings have been very successful, and in some instances I may say we had enthusiastic meetings. In most places the cow, her feed and care, were warmly and intelligently discussed; also a proper system of mixed farming. The breeding and feeding of pigs received a good share of attention.

The most interesting discussions were upon corn growing, the silo, and feeding the corn crop. Like many other new crops when first introduced there is often a difference of opinion about it. Some farmers have been

growing large crops of tall corn of a variety which is too late in ripening to produce ears to any extent. They think there is not much feed in it, and they are about right, as the most of the nourishment in any crop is in the grain; and corn without ears is a very poor food. I like to see farmers taking so much interest in these subjects, because they are so closely related to their own prosperity.

WINTERING PLANTS IN THE CELLAR.

Many people are in the habit of putting plants in the cellar to winter. They are put there to rest, not to grow. When stored away this way they should not be watered. Nothing is more harmful. Only sufficient water should be added to prevent the soil from becoming dust dry.

When the buds start in the early spring do not give water. This would only favor their growth. Keep them as dry and cool as possible until time to take them out of the cellar.

MARKET REVIEW AND FORECAST.

Office of FARMING,

44 and 46 Richmond street W., Toronto,
January 10th, 1898.

Business during the week has been good, and trade has assumed its usual swing after the holiday season. There seems to be a good demand for spring goods. It is reported that the stocks in the hands of country dealers are not large, for during the last year they have been doing a hand to mouth business, and disposing of stock on hand. This means that there will be of necessity greatly increased purchases in the very near future, to put dealers in possession of the required amount of goods for a full season's trade.

(Continued on page 152.)

COLLIE Dogs, Tamworth and Duroc-Jersey Swine, Oxford Sheep, Bronze Turkeys, Toulouse Geese, Pekin Ducks, B. Leghorns, A. Elliott, Pond Mills, Ont.

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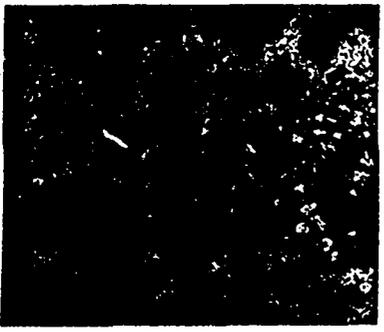
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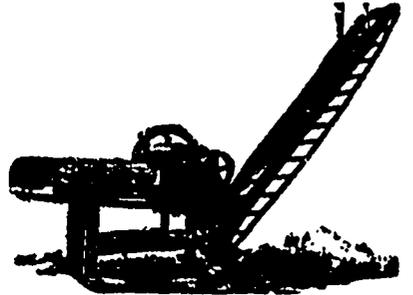
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CLINTON, ONT.**

Wheat.

Now that the great deal in December wheat is a thing of the past all interest is centred in May wheat. It is yet too early to say what the prospects will be. It is reported that the Leiter crowd promise a surprise later on, but they have such a large amount of wheat on hand, estimated at 12,000,000 bushels, they may find that they will not be able to do all they think they can. At present they are holding their wheat at about ten cents a bushel above the present price for May wheat. During the week May wheat dropped to 89 1/2c., or, practically, 20c. less than the highest price bid for December wheat. The price of wheat during the week has run between 90c. and a little over 91c. at Chicago. What it will be in May is the quandary upon which thousands upon thousands of the people of this continent will speculate from now until the end of May. The visible supply of wheat, which has steadily increased in the face of a heavy export demand; the Australian crop, which is almost sure to be a large one, allowing of some wheat for export, and the condition of the winter wheat in the spring, are all factors that enter into the determining of the price of May wheat.

Early in the week the price of wheat in Toronto fell away about a cent a pound, in sympathy with the decline in Chicago. 82c. has been the ruling price during the week, holders asking 83c., but the close of the week saw sales at 83c. Red winter wheat brings 88c. to 89c. on the farmers' market, Toronto, and white winter 85c. to 87c.

Manitoba wheat is also a little easier, being 98c. at Ontario points.

Barley and Oats.

There is no improvement in the market for barley; it is dull, and prices remain at the same old figures, 32c. to 33c. for No. 2, and 25c. to 27c. for feed. At Montreal 34c. to 35c. is given for feed barley, and 50c. to 54c. for old malling grades.

The market for oats is a little easier in sympathy with wheat. There has been a little undue excitement in oats on account of the wheat scare, but it was unwarranted. The ruling price seems to be about 24 1/2c. for white oats in car lots, north and west freights. At Montreal oats are quoted at about 27 1/2c.

Peas and Corn.

Peas are in active demand, and prices have advanced a few cents. East of Toronto they are now bringing 50c., while west of that point they are quoted at 49c., cars, north and west.

At Montreal prices, too, have advanced in sympathy with a stronger demand from the Old Country.

The market for corn is about 1/2c. better, being now 27 1/2c. for yellow corn west.

Rye and Buckwheat.

Rye is steady at 44 1/2c. to 45c. west, and at Montreal at 52c.

The price of buckwheat has declined a little during the week. At Toronto it is quiet at 30c. to 31c. for cars west.

At Montreal prices range from 35c. to 36c.

Millfeed.

The market for millfeed is dull. Shorts are quoted at \$10 to \$12 per ton by the carload, while bran is quoted at \$7.50 west. At Montreal bran is worth \$10.75 to \$11 in bulk, and shorts are quiet at \$12 to \$12.50 according to grade.

Potatoes.

Potatoes continue dull at 60c. on the tracks in car lots, out of stores 70c. At Montreal 55c. to 57 1/2c. seems to be the ruling price in car lots, while jobbing lots sell at from 65c. to 70c.

Apples.

A good trade in apples has been done in the Old Country during the holiday season, but on this side the water trade has been quiet. They are quoted all the way from \$1.50 to \$4.50 per bbl. Dried apples are worth 5c. to 5 1/2c. per pound.

Cheese.

There has been no occasion to alter the estimated number of boxes of cheese on this side the water as reported last week. The stocks on hand at three of the principal ports in England have been cabled as follows:

	Boxes.
Liverpool.....	140,000
Bristol.....	120,000
London.....	280,000
Total.....	540,000

This is quite an increase upon the stocks

held at this time last year. The price of cheese, however, is from 1 1/2c. to 2c. lower, and this will tend to increase consumption. Increased enquiries have been received from the old country, which would go to show that buyers there fear that the new cheese comes in a shortage before the new cheese comes in. Sales of 4,000 boxes are reported at Montreal during the week, at prices ranging from 8 1/2c. to 8 3/4c. per pound. Business, though, is slow at these figures as holders are holding out for higher prices in view of the increased cable inquiries at higher limits. The stocks here are not thought to be any too large.

Butter.

Sales are reported at Montreal of fresh-made creamery butter at 19c., 19 1/4c. and 19 1/2c. The market is quiet, but steady. Early creamery butter held in cold storage sells for 16 1/2c. to 18c. There seems to be a great scarcity of low grade dairy butter, and we hope it may always continue that way. If all the butter produced was made up in creameries, there would soon be no poor dairy butter to sell for 6c. to 11c. per pound as at present. Bakers and confectioners who use this grade of butter have been obliged to buy roll butter at about 15c.

At Toronto choice dairy pound rolls bring 17c. to 17 1/2c. Choice tubs are scarce at 15c. to 16c.

Poultry.

Reports from the Old Country state that some of the later shipments of poultry were not so successful as the earlier ones were. At Montreal the demand for dressed poultry of all kinds has been good. Fresh-killed turkeys bring 9 1/2c.; frozen lots, 8 1/2c. to 9c. Geese, 6 1/2c. to 7c. Chickens, 6 1/2c. to 7 1/2c. Ducks are rather scarce at 8c. to 8 1/2c.

At Toronto the market for dressed poultry is somewhat easier. Turkeys bring 7 1/2c. to 8c. Ducks, 45c. to 75c., and chickens, 30c. to 50c. per pair.

Eggs.

The egg trade continues good. At Toronto the market is steady at 16c. for fresh eggs, in case lots. On the farmers' market they bring 20c. Cold storage and held fresh eggs are slow at 14c. and limed eggs about 3c. lower.

At Montreal good boiling stock bring 22c. to 23c. Cold storage eggs bring 17c. to 18c. and limed bring from 12c. to 15c.

Cattle.

American cattle buyers are complaining that a large amount of the cattle offering in the western markets are only half finished. On a recent day four-fifths of the receipts at the Chicago yards were animals of this class, and, of course, prices are less for them. Something of the same thing prevails here. The quality of the cattle offering is not first class.

First-class steers for export bring 4c., and extra ones 4 1/4c., but the great majority are bought at 3 1/2c.

In butchers' cattle, the general quality is poor, anything choice runs up to 4c., but the usual price is from 3c. to 3 1/2c. per pound. Quite a number of cattle have been taken for Harris' new abattoir and this tends to steady prices.

The trade in stockers and feeders is quiet, only a few are being taken for the Buffalo market. Light stockers bring from 2 1/2c. to 3 1/4c. per lb. A few feeders are called for at prices ranging from 3 1/4c. to 3 1/2c. per lb. Good calves sell well in Toronto at from \$5 to \$8. Poor ones are not wanted.

Sheep.

The trade in sheep is quiet, 3c. to 3 1/4c. per lb. for shipping sheep and \$3 to \$4 each for butchers' sheep seem to be the ruling prices at Toronto. Lambs are firm and bring 4 1/2c. to 4 3/4c. per lb. The market for lambs in Buffalo continues strong for choice lambs, prices running up to \$5.90 per cwt. for choice ones.

Hogs.

Hogs are active sellers on the market. Prices have advanced in sympathy with the advance for dressed hogs. Choice selections now bring \$5 per cwt. weighed off the cars. Light hogs and thick, fat hogs bring 4 1/2c.; sows, 3c. to 3 1/4c.; stags, 2c. to 2 1/4c. per lb. All kinds of hogs are wanted.

Dressed Hogs.

Local dealers quote \$6.50 per cwt. for hogs weighing from 90 to 150 lbs., and \$6.25 per cwt. for hogs weighing from 150 to 250 lbs. Sales at Montreal are reported at \$6.50 to \$6.60 for round lots, and at \$6.75 to \$6.85 for smaller quantities.

Hay.

No. 1 baled hay goes for \$11 to \$11.25 per ton in car lots. While at Toronto there is no change from the steady figures of \$8 to \$8.75 per ton.

Potash

is one of the three important ingredients of a complete fertilizer; the others are phosphoric acid and nitrogen.

Too little Potash is sure to result in a partial crop failure.

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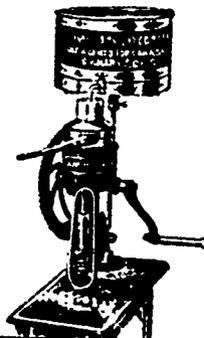
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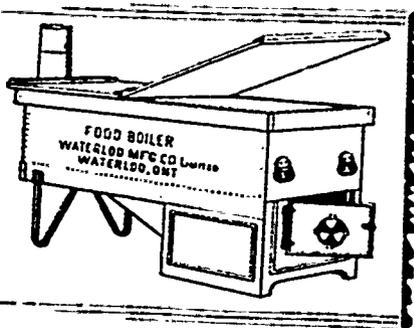
Messrs. RICHARDSON & WEBSTER, Jarvis, Ont., July 26th, 1897. GENTLEMEN,—In reply to your letter of the 22nd, I would say the American Cream Separator that I purchased from you last September has done all that you claimed for it. I went to Toronto fair last fall with the intention of buying a separator; after looking over the different makes, I concluded to buy the "American," and it has given me entire satisfaction. I find it runs easy, is no trouble to keep in repair, and it is a clean skimmer. In my opinion it is the most perfect machine on the market.

They all have something of the same to say. Are you building a creamery? If so, get our prices for the complete outfit. We manufacture and handle churns, butter workers, engines and boilers, cream separators, and everything required for making butter or cheese.

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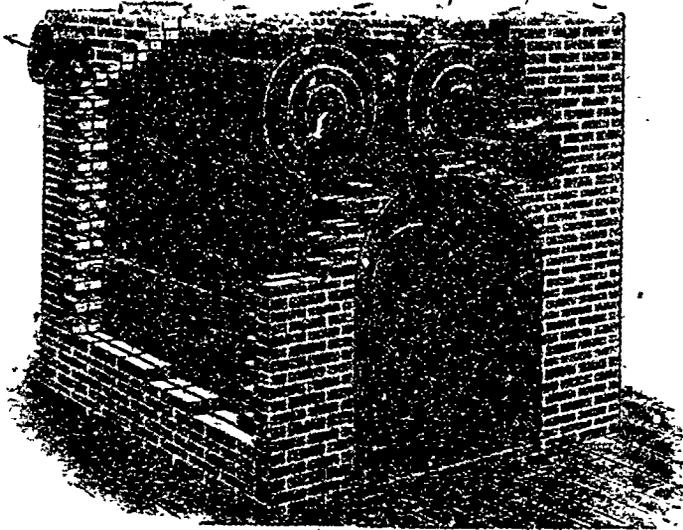
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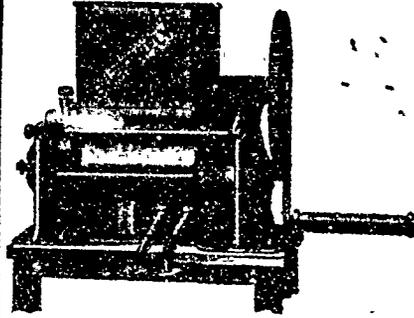
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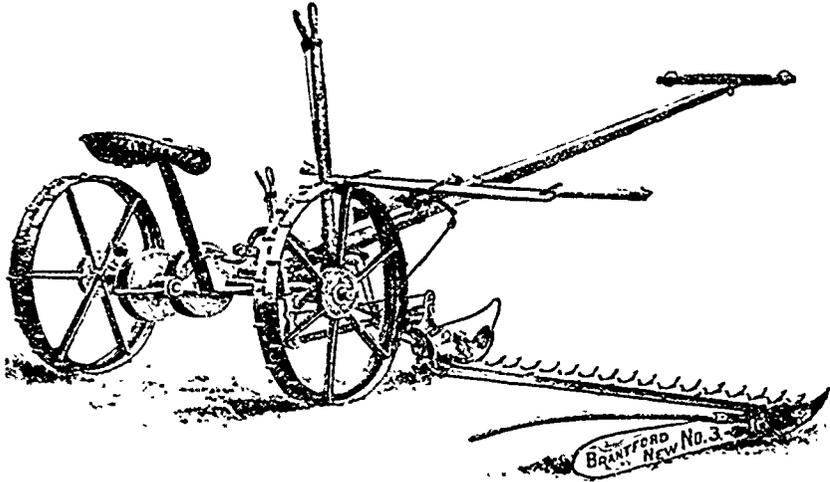
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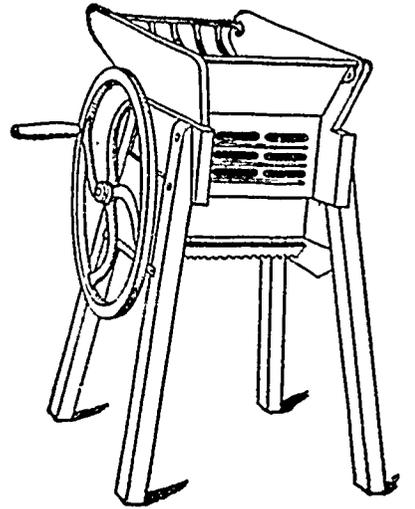
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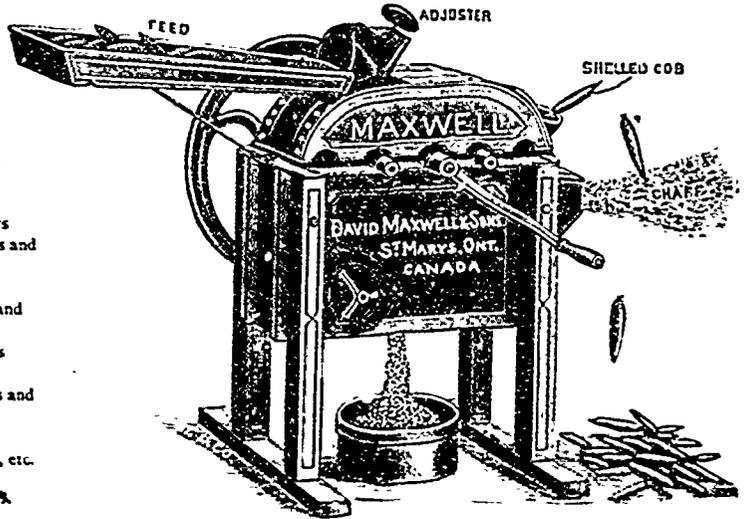
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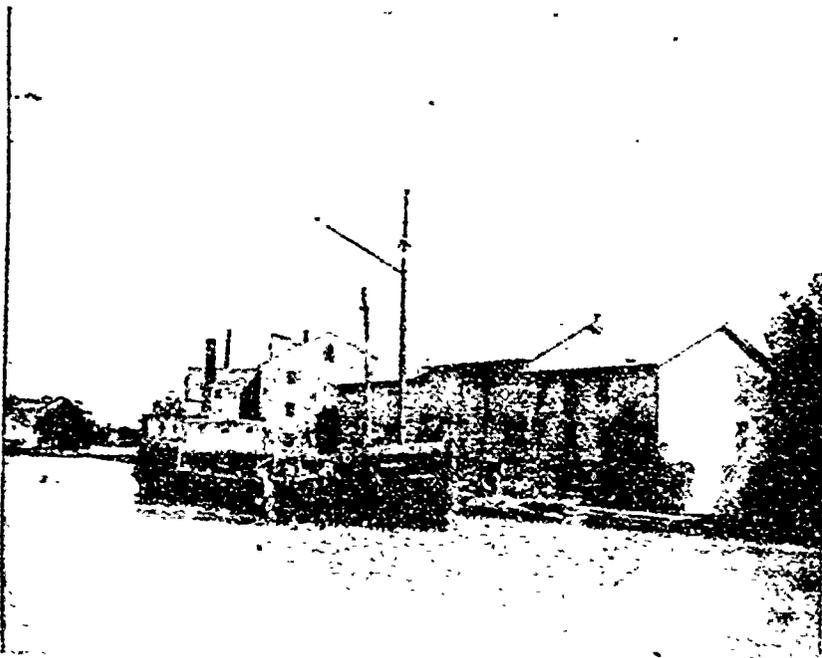
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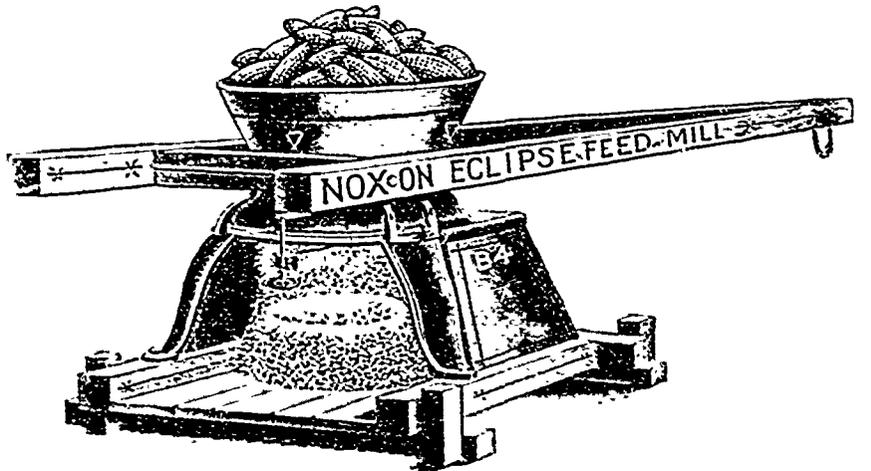


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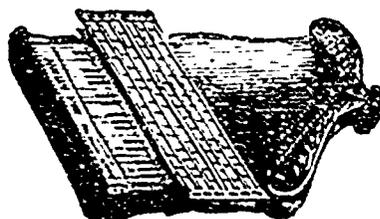


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