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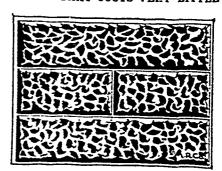
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# FARMING

Vol. XVII.

MARCH 13th, 1900.

No. 28

### 30 Cent Butter

Not for many years has there been such an unprecedented scarcity of butter in Canada as there is at the present time. Wherever one goes in the country or in the city the cry is the same. Many winter creameries have had ready sale for their supplies in their own localities and have not had to go to the trouble of shipping to the larger centres. So great is the scarcity that large quantities of butter are being reshipped from England to Canada. Prices in Montreal last week reached the thirty cent basis for choice creamery in large lots and some sales were made in a retail way at 32 to 33c. Creameries have been able to dispose of their product at 27 to 29c. at Montreal and inferior quality has brought within a couple of cents of these figures. It is not expected that these high prices will prevail very long. The warmer weather is approaching and the season is at hand when the milk supply will begin to increase very quickly. But with all stocks cleared out as they undoubtedly will be at present high values, good [profitable prices are likely to obtain for some time.

# In the Legislature

The Local Legislature after spending three weeks of valuable time finished up the debate on the address last week. On Thursday the Premier, who is Provincial Treasurer, delivered his budget speech and outlined the estimates for the current year. The total estimates for agriculture amount to \$205,725.00, as compared with \$204,217.00 for 1899 and \$202,919 00 for 1898. These figures, however, do not include the supplementary estimates which are not brought down till the end of the session. The principal increase is an extra grant of \$1,500 to the Eastern and Western Cheese and Butter Associations to be devoted to further instruction in the cheese factories and creameries. This makes the total grant to these associations \$8,000, a sum that is well spent by them in improving the quality of our butter and cheese.

There is no provision in the estimates for carrying on the work of instruction in spraying, and we would infer that it is the intention of the Government to discontinue this line of work for the present. An important change has been made in the San Jose Scale Act by the Minister of Agriculture, which provides for the substitution of spraying and fumigation of infected trees for burning in the eradication of the pest. When such treatment is authorized or ordered and the owner refuses to obey, destruction by burning must take place without compensation.

by burning must take place without compensation.

Mr. A. W. Campbell, who has occupied the position of Provincial Road Instructor under the Minister of Agriculture, will be transferred to the Department of Public Works, where he will take the position of Provincial Engineer of Highways and Colonization Roads. This does not mean that Mr. Campbell will give up the excellent work he is now doing in connection with the good roads movement, but that in addition he will have charge of all the colonization roads constructed by the Government.

# The English Royal Show

#### A Movement to Permanently Locate It

The management of the Royal Show is now, like that of our own Provincial Winter Fair, discussing the advisability of locating the great English show permanently. Last year at Maidstone the Royal lost £6,400, and at Birmingham the year previous £1,568, and consequently a committee was appointed to consider and report upon the changes desirable in the management of future shows. This committee has recently reported strongly in favor of permanently locating the Royal as the following extract from the report will show:

"The committee have arrived at the conclusion that if the Society's shows are to fulfil their proper function in the future, without an unwarrantable drain upon the Society's general resources, it would be desirable that, if possible, they should be held upon a permanent location near some large town (preferably in the centre of England), which would be convenient tor railway access from all parts of the country. In fact, the endeavor of the Society in the future should be to bring the people to the show and not the show to the people."

The chief reasons for advocating the permanent location of this great English show are the loss of revenue and the big expense of providing, new accommodation each year. It cost last year to build the Maidstone show-yard £13,047, which was offset by the sale of the timber, etc., after the show was over to the extent of £7,907, leaving a net outlay of over £5,000. The year previous the net cost of buildings, etc., was over £7,000. As is the case with our own show, this committee wisely concludes that it would be better and cheaper to permanently locate the show at some central point where good accommodation can be secured. That is almost the universal opinion of breeders in regard to the Ontario winter fair, which we hope before next December to see permanently located at some central point and proper buildings and equipment provided.

# How to Test the Vitality of Garden Seeds

# A. S. Hitchcock, Botanist, Kansas Experiment Station, Manhattan

It is well known that the vitality of seed diminishes rapidly with age. Dealers sometimes keep seed over from one season to another, and, if the vitality is too low, may mix fresh seed with this. Low vitality may not be due to age, but to unfavorable conditions at time of harvesting or to immaturity. In any case it is well to determine the vitality before planting. While it requires some experience to determine the impurities in seeds, the farmer can at least test his seed for vitality.

A cheap and convenient form of apparatus for testing the vitality of seeds at home is the following: Choose two

earthenware plates of the same size. Cut out two circular layers of flannel somewhat smaller than the plates. Between the two layers of flannel place 100 seeds of the variety to be tested. Moisten the flannel with all the water it will absorb. The two layers of flannel are placed in one plate and covered with the other and set in a warm place. If the flannel be thin, several pieces should be used in order to absorb sufficient water. Other kinds of absorbent cloth or blotting paper can be used, but thick flannel is rather more satisfactory. At the Kansas Experiment Station we have used damp sand for a seed-bed with good success. The dishes should be placed in a room which is kept warm at night, or at least where the temperature does not fall to freezing. The flannel should be kept moist by the addition of more water when necessary. Some seeds will com-mence to germinate by the third day. Each day an examination should be made, and those seeds which have germinated should be recorded and removed. For practical purposes two weeks is sufficient time for the test. The results obtained may be considered as representing the per cent. of vitality under favorable conditions. The per cent. germinating in the ground is likely to be less. In counting out the 100 seeds, care should be taken to discard poor or shriveled seeds and the seeds of weeds or other plants which may be present.

Grass seeds require as much as three weeks, and seeds of some trees a still longer time. Beet balls contain from three to seven seeds. With very small seed, it may be necessary to provide for the circulation of air by placing small pieces of wood between the layers of cloth and the seeds. With most varieties of garden plants the majority of seeds should germinate within a few days after the first sprout appears. If the period of germination extends over a longer time, it shows that the vitality of the seed is low. Seeds of the carrot lamily and some melon seeds may not show as high results in the germinating dishes as they do in the ground. Below is given a list of common seeds, with the average number of years that they will retain their vitality (taken from Professor Bailey's Horticulturists' Rule Book):

Bean 3, beet 6, cabbage 5, carrot 5, celery 8, cucumber 10, Indian corn 2, lettuce 5, musk-melon 5, onion 2, parsnip 2, pea 3, pumpkin 4, radish 5, summer squash 6, tomato 4, turnip 5, water-melon 6.

# New Brunswick Farmers and Dairymen

Specially Reported for Farming.

The annual convention of the Provincial Farmers' and Dairymen's Association of New Brunswick took place at Fredericton on Feb. 27th and 28th and March 1st, which was one of the best ever held in the province. The first meeting was held in the large Y.M.C.A hall, but owing to the large crowd of p-ople it was thought advisable to hold the next meeting in the Normal School building. President John McLaughlan, in making his annual address, referred to the operations of the association during the year, which he thought had been very beneficial to the farmers, who were rejoicing over the bountiful crops which had been gathered by them during the past season. He then referred to the Institute work of which this association had been relieved by our local Government. Many meetings had been held during the year in every county in the province, and at the request of the association the Government had sent a practical orchardist to visit the farmers and give instruction in this line of work.

In his reference to stock he thought that great progress was being made except in the breeding of sheep, which was not increasing very much owing to the great losses caused by dogs. It seemed to him that many farmers who persisted in keeping these worthless curs preferred them to a fine piece of mutton.

#### EXHIBITIONS.

Exhibitions had been held at St. John, Woodstock, Sussex, Sackville, Bathurst, Centreville, Glassville, as well as in other places which he was not in a position to attend. He thought a greater interest was being taken by our farmers in this connection, and a grand improvement as also being made in the class of stock put on exhibition. Prizes, he said, that a few years ago were carried away to the upper provinces, now remained in the Maritime Provinces. This reference was made in connection with the St. John exhibition.

At the local shows nearly every class showed a marked improvement over previous years.

The speaker made special reference to the grand and rapid development of the dairy industry in nearly every county, and he thought that next season would show a still larger make than even this one has.

The new creamery, which was established last season, had done a grand work, relieving the market of a very large quantity of dairy butter which neither paid the farmer to manufacture nor suited the tastes of those who used it. There is nothing like making a class of butter suitable for export, for which high prices can be obtained. The president then thanked the officers of the association for the assistance they had given him, and hoped that those who had been sent as delegates would return to their homes much better fitted to grapple with the different prollems of farm life.

#### HON. CHAS. H LA BILLOIS,

Commissioner for Agriculture, was then called upon and expressed his pleasure at being able to attend the convention. As head of the agricultural department he would give the meeting some idea regarding the work done by himself The wheat policy which was adopted by our Government in 1897 had been the means of greatly increasing the growth of that crop, and as a result twelve new modern roller mills had been established in different sections of the province which were turning out about 500 barrels of flour per day. The increase in the production of wheat last season was about 100,000 bushels in excess of 1898, and the yield per acre was 18.1 bushels, being one bushel more than the average for the Province of Ontario. thought that had it not been for the great gale which swept over the northern portion of the province the yield per acre would have been 20 bushels per acre.

Turnip seed was being imported from England by the department and distributed over all sections at cost price; the same thing was being done with seed wheat every spring, which was giving general satisfaction.

In the live stock department he thought a much greater interest was being taken. Pork and poultry were being raised in much larger quantities than formerly.

#### DAIRYING.

Creamery butter had made a grand showing this season, both in price and quantity, an increase of 205,000 pounds being made. About three quarters of the output of our creamertes was being exported to the old countries at high prices, which showed upon what a high plane the industry was being developed. He then referred to the new creameries and cheese factories which had been established last season in Madawaska, King's, Carleton and Westmoreland counties and was glad to be able to say that all lines of agriculture were being developed, not only in a few counties. but in every county in the province.

In his reference to the Provincial Dairy School he said that it was being managed by our own officers, and he was proud to say that the school had proved a grand success. Deputy-Commissioner Peters, he said, had rendered him valuable services since he took charge of the office and he spoke of the grand exhibit Mr. Peters had secured in the shape of all kinds of grains and fruit for the Paris Exposition which he knew would give New Brunswick a grand showing when it was arranged.

The commissioner then spoke of the agitation for an agricultural college for the Maritime Provinces, which he

knew would be of great importance if success attended the efforts of those who are endeavoring to secure it.

#### INSTITUTE WORK.

This was a step in the right direction when the system was inaugurated. He said that it was the intention of the department to hold at least one hundred meetings each year, but owing to the outbreak of smallpox in the northern part of the province the meetings in that section were abandoned for a time.

In referring to the possibilities of the future he said that in 1891 three million acres only produced \$7,000,000 worth of farm produce, but now he thought that it would produce \$15,000,000 worth.

In closing he said that he hoped nothing would be introduced in the meetings that would dampen the ardor of those in attendance. We should all work in harmony regardless of our own political views which would bring success to our undertakings.

#### GENERAL PURPOSE COW.

After the county vice-presidents' reports were read, which in nearly every case referred to the excellent crops and the increasing interest taken along dairy lines, the president called on Mr. Bliss Fawcett, of Sackville, to read his paper on beef raising. Mr. Fawcett, who, by the way, is one of those general-purpose cow admirers, gave his ideas of what a general-purpose cow was. She was, he said, a square-built cow that would give two pails of 4.2 per cent. milk and at the same time would make a first class beef cow, when we wished to make beef of her. A lively discussion took place over this paper, which I do not think won any more admirers for Mr. Fawcett's cow.

The evening session was occupied by the addresses and discussion on agricultural education. Addresses were made by W. W. Hubbard, Dr. Inch, Hon. Chas. H. La Billois and Dr. Mullen.

#### AGRICULTURAL EDUCATION.

W. W. Hubbard referred to the great needs of our people giving more attention to agriculture, and thought that by discussing the subject at this meeting when representatives were here from all over the province, a greater interest could be worked up and the people would return home better able to discuss the question in their own local societies.

The speaker gave a clear idea how technical education was first started in the States. In England large agricultural colleges were opened, but had not proved a success. He thought a small plot of land at each country school, where different crops could be grown, would have a tendency to enthuse the small pupils there by keeping their minds on the farm work. The Rose, Thistle and Shamrock was beautifully rendered by the Normal School students, after the address, and a lively discussion followed, in which J. E Starr, Nova Scotia; Howard Trueman, Point de Bute; Geo. E. Baxter, of Andover, and others took part.

Dr. Saunders was next called upon and made some reference to agricultural education. He said that it was conceded now by all that a farmer had to be made from some other than the half-witted boy who was usually selected. Education, he said, was the only grand work upon which to work the rest of our lives, and those who think they have finished this work on leaving the schools were to be pitied.

He wished to speak for a short time to the ladies upon the subject of plants, which adorned our homes. The doctor went thoroughly into the subject, naming many of the different varieties, giving the treatment they required, and concluded by saying that no home was complete without an assortment of flowers.

The morning session of the second day was taken up by the papers read by J. F. Tilley on Dairying, and H. Mitchell on Curing Rooms. A grand discussion followed in which many practical points were brought out.

In the afternoon Mr. Robt. Robertson, of the Nappan

farm, gave an excellent address on the "Importance of Live Stock to Agricultural Prosperity." The speaker referred to the question of breeding, and showed the great development of this branch of farming in Ontario. Bringing in live stock by the Government, he thought, had a damaging effect upon those who would like to enter into the work in our own provinces. He had no place on his farm for the so called general purpose cow, and the farmers of this country should first determine in their own minds what they want their stock for, then breed for that purpose. Mr. Robertson's address was well received, and he was asked many questions upon the work of breeding and feeding.

E. B. Elderkin, of the Maritime Stock Breeders' Association, then gave an address, in which he spoke of the association to which he belonged. He referred to the stock of the Maritime Provinces, and claimed we had a good class upon which to work. He thought that our farmers should get the special purpose stock for special work.

Dr. Saunders, being the next speaker, addressed the meeting upon "Natural and Artificial Fertilizers." The speaker compared the value of different kinds of fertilizer, and spoke of the great necessity of properly caring for it, showing the great loss incurred by allowing it to leach. A lively discussion followed the doctor's address.

The evening session was taken up with an excellent address by J. K. Flemming, M.P.P., on the "Review of the 19th Century." Mr. Flemming is a pleasing speaker, and handled the subject in an able manner.

#### OFFICERS FOR 1900.

On Thursday morning the following officers for the ensuing year were elected: A. G. Dickson, president; O. M. Wetmore, vice-president; James R. Taylor, recording secretary; W. W. Hubbard, corresponding secretary; B. M. Fawcett, treasurer. Vice-presidents for counties: Restigouche, James E. Stewart; Gloucester, John Kenny; Northumberland, C. Dickson; Kent, J. J. Jardine; Westmoreland, Howard Trueman; Albert, E. Colpitts; Kings, David M. Hamm; Queens, A. E. McAlpine; Sunbury, C. F. McLean; York, Frank R. Brook; Carleton, James Good; Charlotte, Stephen Scott; St. John, S. Creighton; Madawaska, Levi Soncie.

After the election of officers the following took part: Exhibition of dressed poultry and discussion led by Messrs. Geo. E. Baxter, Andover, and W. S. Tompkins, Southampton; "Potato Growing," by O. W. Vetmore, Clifton, N.B.; "Wheat Growing," Geo. J. Dickson, Chatham, N.B.; "Results of Selecting Productive Varieties of Cereals for Sowing," by Dr. Saunders; "Onion Growing," by W. M. Thurrott, Maugerville; "How to Make the Farm Pay," by John E. Starr, Kings Co., N.S.; "The English Market for Canadian Products," by Henry Wilmot, Belmont.

All the above subjects were ably handled by the several speakers, and grand discussions followed each address.

Prof. J. W. Robertson gave an excellent address on "Pork Raising," but as his time was very limited the discussion of the subject was necessarily short.

### British Columbia Letter

#### By our own Correspondent

Farmers are still farming in Briti-b Columbia, but the talk has been latterly of other things than agriculture. The war in South Africa has become a vivid reality to a good many of us here. The infantry contingent has gone, and Strathcona's Horse have gone, and not a few ranches up and down the country are one man short in consequence. The young men who perforce must remain at home are now expending their military ardor in the formation of local volunteer corps. In a sense the weather favors the movement. There is leisure to meet and talk these things over while it alternately snows and thaws and freezes and rains. How would it have been had the idea been started in the midst of the spring work or the harvest?

The Dairymen's Association of B.C. held their annual meetings last month in Victoria, and in addition to the ordinary routine business and discussions, the members had the advantage of hearing some very excellent addresses delivered by Professor Shutt, of Ottawa; Mr. Spillman, of Washington; and Mr. Marker, Dominion Dairy Commissioner. Mr. Marker, in fact, has done something more than speak. He is endeavoring to further a project, which, if only it can be universally introduced, will mean much for the dairy herds throughout the province. He wishes to see established in each dairying centre an association for the systematic testing of the individual cows in each herd. In many herds there are three classes of cows to be found. First, those which barely pay for their keep. Second, those which are an absolute loss. Third, those which show a profit. Now the object of a scheme of individual testing is to enable the farmer to determine exactly to which class each of his cows belongs, making it thus an easy matter to weed out the poor milkers, and breed exclusively from the best Any farmer can, and in fact, should, do this for himself, but by forming an association, keeping records of the results, and publishing them from time to time, it is then proved beyond a doubt where the best stock is located, the intelligent farmer gets his reputation built up in the district, people know where to buy good calves, and there is an all-round benefit. The idea comes from Denmark. The Danes started this system in 1895 with two societies, comprising, forty-seven members and 834 cows. By 1898 the scheme had extended until it embraced fifty-nine societies with 1,139 members and 25,130 cows, these societies being assisted in their work by a government grant. Now the method is as follows: The members pledge themselves to have samples of milk of each of their cows tested once every two weeks. A man is specially employed to effect these tests, and note the results. He also keeps a record of the length of time each cow has been milking and the amount of feed consumed. In reckoning the feed a very ingenious method is employed—a system of units—the unit in this case being one pound of grain or oil-cake. Now it has been found by careful experiment that one pound of grain is equal to ten pounds of mangolds. Thus ten pounds of mangolds can be put down in the food scale as one. Other units, each equalling one pound of grain, are, 10 pounds of carrots, or 121/2 pounds of turnips, or 21/2 pounds of hay, or five pounds straw, or three pounds vetches, or 10 pounds green feed, or 1/12 part of a day spent upon a good pasture, each unit being valued at 1 1/4 c.

I cannot say that an association has been started here exactly upon these lines, but at any rate, the first step has been taken. We are going to do without the peregrinating milk tester for the present, keep the records ourselves, and

make them public at the end of six months.

Creamery butter has gone up to 40c., and stays there, and this with a fairly mild and open winter. Fresh eggs are still at 30c. These quotations must not lead Eastern farmers to think that this is an agricultural Klondike. It must be borne in mind that there are 250 feet high and 4½-feet thick Douglas firs to be cleared away before we can raise 40c. butter.

# Plenty of Space for Poultry

One of the greatest mistakes of poultry-raisers is to suppose that chickens do not require much space. A diryman only keeps enough cows on his farm that the land is able to support. If one acre will support a cow, it is not crowding them to have as many on the farm as there are acres, but if you put five hundred hens on one acre the matter would be quite different. Land is generally cheap enough for poultrymen to have ample room for their poultry, but as a rule they are always too cramped. Not more than fifty to seventy five hens should be raised to the acre. A five hundred-chicken farm should contain at least eight to ten acres, exclusive of buildings. That is larger space for each bird than most people provide, but it is not too

liberal an arrangement, as any one will discover after a few years' experience. Farmers calculate their profits by the acre. It they can clear from \$20 to \$30 an acre they consider themselves fortunate, and they do not grumble at their hard conditions. \$50 an acre would supply them with substantial rewards for thinking themselves well blessed.

Now in the case of the chicken-raiser we find that everything is in his favor for comparison with any other class of farmer. Suppose fifty hens are raised to the acre; a profit of fifty cents a year on each bird would make fair farming. He would be clearing \$25 a year per acre, which would be more than many farmers can clear to-day in raising either wheat or corn. But fifty cents a year clear profit is small indeed for respectable poultry, and a dollar a year is not too much to place to the credit of the average well-bred fowl. Here we have \$50 an acre, and a ten or twenty-acre farm stocked to the capacity mentioned ought to yield a good living income to the owner.

One acre judiciously cultivated should raise enough food to keep fit y chickens a year, and that is about all we can expect from it. Let us go to work and cultivate the soil for chicken food as systematically as the farmer cultivates his land for corn and wheat, and then we will realize larger profits and a sure income. The birds will no longer be crowded, and fewer diseases will attack them. Both our pocket books and poultry will be richer and better tor expanding the chicken farm in this way.—American Culti-

vator.

#### CORRESPONDENCE

# The Dog Nuisance

To the Sheep Farmers of Ontario:

At the last session of the Ontario Legislature we were promised that at the next session the dog and sheep law would be brought up for amendment. As the promised time is now at hand, I should like to hear, through the papers and otherwise, from all interested in the matter, with a view to assisting the Assembly to amend the law. All who have read the papers during the past year have noticed that the destruction of sheep by dogs has been very great. The present law is unjust to breeders of sheep and owners of dogs; but if we wish the conditions improved we must look after it, and have the necessary changes made.

Lynndale Stock Farm, Simcoe, Norfolk Co., Ont. J. H. WOOLLEY.

# Bonussing Beet Root Sugar

To the Editor of FARMING:

I notice in a recent issue of FARMING that a large and influential deputation of men interested in the beet sugar industry waited upon the Ontario Government and asked for a bounty upon a sliding scale for a few years in order to establish the industry in Canada Now, sir, I am, probably, just as much interested in the establishment of the beet sugar industry for Ontario as anyone  $\epsilon$ , because I can see that it means another industry that will not only benefit the country generally, but also the farmers in particular, whose interests I have always to heart, having been one myself. I see no reason, however, why this industry must be bonused in order to make it a success. been in communication with O'd Country capitalists who are ready to furnish the money for establishing a factory, if only a sufficient number of farmers will guarantee to raise enough beets to keep the factory running at a profit. From enquiries they have made they are convinced that there will be good returns both for themselves and for those who will produce the beets. Our climate is most favorable; there is plenty of suitable soil, and, altogether, there is nothing to hinder the carrying out of the project.

except the strange unwillingness of the farmers to further their own interests by growing the beets.

I must not further trespass on your space now, but, I shall be pleased to give further particulars in your columns should any of your readers desire it.

Ex FARMER.

Toronto.

# Of Great Benefit to all Breeders

To the Editor of FARMING :

In reference to combination sales of pure-bred stock by public auction, I am strongly of the opinion that such sales, if properly conducted, will be of the greatest benefit to all breeders of all kinds of pure-bred live stock. We often see a small breeder, perhaps a beginner, who has a bull or two for sale, refrain from spending \$10 or \$20 in advertising and we often find that the animals remain on his hands until they have eaten their heads off. If this breeder could take them to a well advertised sale with the assurance that he could sell them at a fair price and have his money to bring home with him, he would feel encouraged, and perhaps go to some large breeder for another bull to propagate more of like kind; and his neighbors, seeing how well he had done, would wish to do likewise. Thus the good work would go on and on, and in a few years there would be an immense increase in the number of breeders of pure-bred stock of one kind or another.

I look upon the Hon. Mr. Fisher's proposition as the most progressive that has ever been offered to the farmers of this country. How farmers can grumble at the small sum of two thousand dollars being set aside for their special benefit I cannot understand. If a few promoters and politicians wait on a Government to get a grant to improve a harbor, build a dock or post-fice, no one speaks a word in opposition—except politicians; but if any part or section of the farming community want even a very few dollars, comparatively speaking, the farmers themselves throughout the country are the first ones to hold up their hands in holy horror against it. The Government of the North-west Territories is doing a noble work for the people of that part of the country. If such sales as are proposed were established the people of the North-west Territories and also the Americans could and would attend, as they could get the animals they want without travelling over the country for weeks at great expense of time and money, often to be completely disappointed in the animals they see and have offered to them. By all means have these sales established; get all the money we can from the Government to help us—and ask for more—and then we shall not have too much. Under the management of Mr. F, W. Hodson success from the very commencement is WM. LINTON. assured.

Aurora, Ont., March 5th, 1900.

# Plans For Farm Buildings

To the Editor of FARMING:

I would suggest for the future that every one wishing plans and specifications for buildings should give what particulars they can, to guide those wishing to assist them in their laudable endeavor.

In house-building it is absolutely necessary to know how many rooms are desired, for what purpose, about what size, how large a cellar, how many stairs, which way the house will face, upon what side it will be approached, of what material it will be built, and about how much money is to be expended. In barn building it is very necessary to state the size, how much and what kind of stock is to be housed; which way it will face; how supplied with water; how many sides can the basement be lighted from, and what sides can be utilized for ingress and egress. It is very desirable to drive in and out of basement, and in

large barns absolutely necessary to avoid the labor of cleaning after stock. It is also necessary to know if ensilage will be used.

A. G. ANDERSON.

Port Dover, Ont., March 1st, 1900.

### Mr. Stoneman's Barn Plan

# Suggestions in Regard To It. A New Litter Carrier

To the Editor of FARMING:

In recalling Mr. Stoneman's barn plan in FARMING of January 30th, I agree with Mr. M. E. Pollard in so far as he goes in having the cow's heads toward the feed rooms as he writes on page 675 in FARMING of February 20th. But in addition to this I would suggest that there be two windows for the ten calves and two for the root house instead of one as in diagram. There should also be a manger and sufficient feed passage for feeding the yearlings from the inside of the barn. Instead of stalls for the cattle that are to be tied, I greatly prefer the self-closing swing stanchions, with the exception of one stall for cows in time of calving. I am also much in favor of a litter carrier to aid in keeping the droppings away from behind the cows. To this litter carrier is fastened a car by means of a rope and windlass so as to lower and raise the carrier to the desired position; the car runs on a track which is fastened to the joists above, and over the passage behind the drop. In this way one is greatly assisted in removing the droppings from behind the cows. Where a person is situated so as to be able to draw the manure out on the land as it is made, the track is extended out of the barn (above the door passage) sufficiently to allow a wagon to pass between the barn and a post that supports the outer end of the track. The car is then run out and the manure dumped into the wagon and drawn away and spread on the land. When a person wishes to save the manure until spring and not draw it out on the land as it is made, a manure shed should be built large enough to hold it and the track is then extended along into the shed. When this is done the track should be supported from above. In case the shed is very large I use switch tracks to distribute the manure in different parts of the shed as it saves much time in handling.

From a reader of your valuable paper.

J. H. LENG.

Wayne, Mich., March, 2nd, 1900.

# Township and County Roads

To the Editor of FARMING:

In your issue of January the 23rd I noticed a letter from W.H.P., of Murray township, headed "Townships Should Control Roads," being a criticism of Hastings county roads.

Now, W.H.P. has the right to enjoy his opinion, but the ratepayers of Hastings county, after an experience of forty years, are satisfied that they have the best system of maintaining the leading roads through the county to be found in the province. We have in this county three hundred and seventy miles of roadway, under the supervision of our superintendent of roads and bridges. We spent, last year, \$10,500 as follows: On one thousand five hundred and fifty-five rods of ditching and grading, eighty-three culverts built new or repaired, four thousand two hundred and twenty cubic yards of broken stone, and twelve thousand two hundred and seventy cubic yards of hill gravel put on the roads.

Now, Mr. Editor, this has been done where it was most needed, in different places throughout ten townships. We try to have our leading roads good their whole length, regardless of township boundaries. If townships were caring for the roads they would repair them where it would do

their own people the most good, regardless of the people of other townships who had to pass over them to get to market or to the railway station. Then, again, is it fair that those townships nearest the city or market town should have to maintain the roads for the other parts of the county from which people must pass over them to get to such town or city?

Under a county system the work is done by experienced men. Skilled labor is always the best and cheapest, and every man is not a practical road-builder. As to the taxes of Hastings county, I think they will compare very favorably with those of other counties in the province, if we do spend about twenty-five per cent. of rate levied on roads. Then we have a great many bridges over rivers and streams (about two hundred in all), which were main-

tained last year for less than \$4,000.

The council of the township of Sidney have passed a bylaw commuting the statute labor, and they intend to adopt a system much the same as the county for the keeping up of the township or lesser roads. The township has sixty-three miles of county road in it. I have travelled over a good many of the roads in the township of Murray, and I do not think that the best roads in that cownship will at all compare with the county roads in Sidney at all seasons of the year.

Foxboro, Ont., Feb. 28th, 1900.

# Preservaline in Foods

Is Advantageous

To the Editor of FARMING:

An article appeared in your issue of Feb. 13th, 1900, which in justice to your readers should be replied to. I have no doubt but that Mr. Weston was perfectly honest in his belief as to the truth of what he wrote, but it is quite evident that he has not given the subject any studious consideration else he would have arrived at different conclus-

Let us consider the article in the order of its paragraph. The first and second paragraphs admit of no questions, they are axioms. The writer makes the statement in the third paragraph that "digestion is a process of decomposition." In this he is in error. The Standard Dictionary uses as synonyms of decomposition, "decay," or "putrefaction." Certainly, digestion is none of these. Decomposition is a separation of a substance into its component parts, as for instance, water is resolved into free hydrogen and free oxygen by a strong electrical current, but foods are not thus decomposed. In the words of John C. Dalton, than whom there is no better authority on physiology of digestion: "The alimentary materials are not decomposed, nor converted into substance of a different kind. They are simply tranformed into soluble material of the same class with themselves." Meat and starch are not decomposed by digestion, but the chemical arrangements of the elements decomposing them are altered in proportion. guage of chemistry, the architecture of the atom is chang-Starch which is made up of the elements, carbon, hydrogen and oxygen, is immediately transformed into the digestive ferments of the saliva and the secretion from the pancreas. It is not decomposed any more than water is decomposed by freezing. The atoms of carbon, hydrogen and oxygen still remain in combination, but in different relation.

He speaks of the four most important conditions for digestion of food as "(1) food, (2) moisture, (3) warmth, (4) gastric, or digestive juices." This tabulation reminds one of a formula for making rabbit stew, the first requisite of which was to get a rabbit. Mr. Weston states that "if these four conditions are present, digestion will go on whether in the stomach or in a dish." This last statement is an error. If it were true we could nourish a patient without a stomach by rectal feeding for an indefinite period, but we are all well aware that rectal feeding has a

short-time limit. The behavior of the digestive enzymes or ferments is quite a different thing in a "dish," or testtube, than it is in the live digestive canal in which it is secreted. No artificial means yet devised has succeeded in reproducing digestion as it is accomplished in the live stomach. We cannot imitate the constant pouring in through the walls of the organ of the digestive fluids; we cannot imitate the gentle peristaltic kneading motion which brings all contained particles into harmonious contact and equal mixture with the ferments. Another very important reason why "dish" digestion is deceptive, were it possible, is this: the digestive ferments of different animals vary widely in the different species. Chemically, the pepsin of a hog and a man may be hard to differentiate. We may not be able to say which is which, still there is a wide difference in the behavior of the two. A better illustration perhaps would be the gastric juices of a hyena as compared with a man. The hyena will digest raw bones of large size, but it is not so with a man's stomach. Digestive ferments may be likened to eggs in a way. We look at an egg, note its size, snape, and color; we examine it chemically and microscopically, but this gives no clue to the kind of a bird that will hatch from it.

The writer reasons that because foods treated with Preservaline "are proof against warmth, moisture, oxygen, and other elements of the air," that they are likewise proof against digestion. This is another error. Putrefaction of substances is brought about by the development of bacteria, which development is favored by warmth and mois-Let us take for a typical illustration milk, which is a fluid containing all the essential food elements, and is at the same time the best known natural culture-field for the growth of germs of putrefaction and disease. The reason milk turns sour is because of the development of minute bacteria or germs, the principal of which is spoken of as the oidium lactis. This germ is present in small numbers in all milk, but when they increase in numbers, a product of their development being lactic acid, the milk becomes sour, which is the first stage of putrefaction. This oidium lactis is a live and well defined microscopical body, and is illustrative of nearly all other germs in food, whether simply putrefactive or disease-producing, like the typhoid fever, diphtheria, or tubercle bacilli.

Now the digestive juices are complex fluids made up of many distinct enzymes, or ferments as they are called, but they are not organized bodies to be distinguished by the microscope, but organized chemical substances of a very definite character. Take the pancreatic ferment for example, the microscope gives no clue to its action on starchy food; and so it is with diastase, pepsin trypsin, lipase, rennet, and the other ferments. It does not follow because a certain chemical agent retards the development of live bacteria, that this same agent will retard the action of other chemical agents. For instance, hydrochloric acid is one of the natural secretions of the stomach, andpeps in will not act unless it is present; at the same time hydro chloric acid is an antiseptic and kills many germs.

Much of late has been written on the subject of this preservative. An article in the London Lance of Jan. 27th, 1900, by Samuel Ridfal, D.Sc., Lond., F.I.C. also an article in a recent number of Science, by Oscar Leow, of the U.S. Dept. of Agriculture, Washington, D.C., and many other equally eminent authorities might be quoted in confirmation of the statement that "in strengths sufficient to prevent decomposition no perceptible retarding of digestion is accomplished." But as was above stated, laboratory experiments are fallacious, but vital statistics and bedside observations are conclusive, and I will take the liberty to quote from the report (1899) of the secretary of the Board

"The conclusion that has been reached after a most careful microscopial examination of milk and a chemical examination of the preservative used, is that it is not harmful, but beneficial to the public health. My reasons for this conclusion are further based on vital statistics now in the hands of the city clerk, which show a lessening of

deaths from intestinal zymotic diseases of over 40 per cent

of Health of Augusta, Maine:

in the past two years that Preservaline has been used in this city. This decrease in the death-rate is not due to improved municipal sanitation, neither do we believe it is due to the grace of God unaided."

There may be a trade advantage to the promoters of Preservaline, but I believe there is a much greater advantage to humanity, and we should not condemn a thing simple because it does not coincide with our preconceived notions. Progress is as possible in the reeding of infants as it is in warfare, and I will here state that if infants brought up on artificial food could at all times receive a supply of cows' milk which was free from putrefactive bacteria and not otherwise injured, as it always is by heat "sterilization" a benefit would be conferred on humanity, besides which any other advance in sanitary science of the past half-centmy would stand insignificant. And I firther state that milk preserved with this agent comes nearer to perfection than any method now known. G. M. RANDALL, M.D.

Lowell, Mass., Feb. 22nd, 1900.

# Assistance to Local Poultry Shows

To the Editor of FARMING:

Will you kindly give me space in your valuable journal to reply to a communication over the signature of Mr. G. W. Miller, of London, who acted in the capacity of assistant secretary at the Ontario Poultry Show in Peterboro' January last, and who, it appears, wrote that speciallyprepared report of that show for FARMING, which appeared in January 23rd issue, and of which I complained on account of its inaccuracies. First, Mr. Miller says there were only 1,008 entries of poultry at the Ontario show in Peterboro', and that there were 1,339, as stated by me, if rabbits, guinea pigs, etc., are birds. Now, sir, he knows that he is equivocating, as there were only about 12 or 15 rabbits there and no guinea pigs at all; and I, as well as most of the other common people, count turkeys, geese, ducks and pigeons when summing up the number of entries. During the progress of the "Ontario" I learned something new, and it was, that dressed turkeys and geese and ducks were not recognized as dressed fowl (by the judges or powers that be). Consequently, some fine specimens on exhibition, fit to be winners anywhere, were not awarded prizes, much to the disgust of the owners.

Mr. Miller says he is very sorry I said anything about the meeting called at Pe erboro' to discuss my resolution and that when I say that the amount of grant asked for each county was not mentioned I "was quibbling." Now, of course, it was asked how much it was proposed to ask for each county. I do not deny saying I thought about \$100; but do emphatically deny putting in \$100 or any other amount in the resolution. Mr. Bogue did ask me to change the motion from a grant for a county to a district of four counties, which I refused to do; but, at the same time, invited Mr. Bogue to bring his in as an amendment if he wished, and let those present choose which they preferred. This Mr. Bogue did not do, and my resolution was carried by at least a two-third majority.

Mr. Miller gets a little funny streak on about the poul trymen hurting my feelings by sitting on my hobby, saying they carried the resolution and then effectually killed it by refusing to appoint the delegates now referred to. Now, the time between closing this meeting, 12.15 p.m., and 1 p.m., the time to open the annual meeting, was so short that the appointment of delegates was left over at that time; but, in answer to circulars containing resolutions, ten out of thirteen poultry associations appointed delegates, and, among those who did not, Brantford did not reply, while London positively refused Consequently, the associations were not unanimous. Then, friend Miller says it is as dead as a door-nail as far as the "Ontario" is concerned. I would like Mr. Miller to state at what time prior to his last letter I ever wrote or spoke, or in way, by word or deed, did anything derogatory to the

"Ontario." If he says I did, it is certain that a stronger term than quibbling will be applied to him by me. He then gives his views as to the Government giving grants to electoral district agricultural societies, to be applied to all live stock, poultry included, and says if poultry does not receive its share the poultrymen are to blame. He knows well that not one in twenty of those societies have even a shed to put the poultry in, and he would at like to be obliged to keep guard on his exhibit all night, or take the chances of having them steler, as that is the most likely thing to happen where there is no poultry building. He speaks of 20,000 visitors being present at the show in 1898, whin there was a free gate. Peterboro' citizens would probably be as liberal as those of Loudon if they were as financially able (which they night have been had they been the headquarters of the "Ontario ' for a quarter of a century). Then, again, a twenty five cont entrance fee (does he not mean admission fee?) is a barrier the farmer does not get over easily, and it is the farmer we poultrymen are seeking to interest. in what? I would ask-bantams and pigeous at the expense of the utility breeds, or farmers' fowls and the dressed poultry, which have been practically ignored by men of his way of thinking? Next, he says that no show can be run on \$100, even if the Government could spare it, for each county, and yet he thinks I should have accepted Mr. Bogue's amendment to my resolution and asked for \$100 for a district of four counties instead of for one. Consistency, thou art a jewel.

Then again, he states, there was not room in Ontario for more than two winter poultry shows, and what could be done with careful management. They could be made of untold advantage to the province. Every inducement should be made to get farmers to attend them. Ample provision should be made for their instruction as to best breeds, methods of feeding, housing, preparing for market, etc. In this way the country would get value for the grants it makes and Canadian poultry would take a long slide forward. He was happy to point out that steps looking to this end are being taken by the "Ontario Execu-(As the boys say in the song, "Let it be soon.") We with our local show offer six times as much in prizes as does the "Ontario" for dressed poultry, and still Mr. Miller says there is only room in Ontario for two winter shows. What bosh from an exjournalist and poultryman of Mr. Miller's ability who wrote (I have every reason to believe) the report of the Ontario show for the February number of the Poultry Review and then to go and make a garbled report for FARMING of a meeting held in Peterboro' at the time of the same show, by the poultrymen for what they think is in their best interests, is something that is not easily understood by quite a number of poultrymen, whom I met in Toronto a few days ago, men who have just as good an idea of what is wanted for the best interests of the farmers and poultry men of Ontario as our learned and respected friend, Mr. G. W. Miller.

In conclusion I must say that the mentioning of the "Ontario" at all in this controversy by me has been compulsory as your correspondent has so securely entrenched and hidden himself behind the "Ontario," that nothing could be seen of him but his hand. Therefore, if an odd shot should strike the breastworks of the "Ontario" it is largely the fault of the so-called friend who came out in defence before an attack was made by any one except in his own mind or imagination. In this I am reminded of an old stanza which reads thus:

> "Sometimes we with false brethren meet, Whose hearts are filled with vain deceit, They appear quite fair just at the first, But of all men those are the worst."

WM. COLLINS.

Peterboro', March 6th 1900.

NOTE.—While these columns are open to discussions upon all subjects affecting the farmer and his interests which we welcome and are pleased to note a greatly increased interest along this line, yet we would like our correspondents to be as free from personalities as possible in their writing. This is not intended to apply especially to the above letter but is given as a piece of advice for future guidance.—

# The 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' 81; Sheep Breeders', \$1; Swine Breeders', \$3 BENEFITS OF MEMBERSHIP.

Sach member receives a free copy of each publication issued by the Association to which he belongs, faring the year in which he is a member. In the case of the Swine Breeders' Association this includes a copy of the Swine Breeders' Association this includes a copy of the Swine Breeders' Association is allowed to register pigs at 50c. per head; non-members

A member of the Swine Breeders' Association is allowed to register pigs at 500, per head; non-members are charged \$1.00 per head.

A member of the Sheep Breeders' Association is allowed to register sheep at 500, 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 0,000 copies of this directory are mailed morthly. Copies are sent to each Agricultural College and each Experiment Station in Canada and the United States, also to promisent breeders and probable buyers resident in Canada, the United States and elsewhere.

A member of an Association will only be allowed to advertuse stock corresponding to the Association to which be belongs; the 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 swise 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 understant of the cattle, sheep, and swine for sale will be published in the published in the most consigned by letter on or before the 9th of each month, of the number, breed, age, and sex of the animals. Should a member fall to do this his name will not appear in that issue.

The data will be published in the most conference of the conference

#### Exhibitors Report on the Feeding of their Prize-Winners at the Provincial Winter Fair.

In our issue of last week we gave the information furnished by three of the exhibitors of fat cattle at the Provincial Winter Fair held in London, Ont., as to the breeding, care, and feeding of their stock. By a printer's error, the introduction explaining this was inadvertently left out. These three exhibitors were the only ones in the fat cattle section that gave information which might catitle them to an additional ten per cent. on their prize money, but a number of the sheep and poultry and two of the swine exhibitors have supplied valuable information, a portion of which is given be-

#### How I Fed My Sheep for the Provincial Winter Fair.

BY JOHN JACKSON, ABINGDON.

The sheep we exhibited were all pure-bred Southdowns. Beginning with the three shearling wethers, dropped about the middle of March, 1898, these had no extra care before going out to grass where they ran with their dams without other food till the 1st of July. They were then weaned and put on out stubble, where 11/4 lbs. of rape seed per acre had been sown with the oats. About the 20th of August these were castrated, being the culls of the ram lambs. Castrating was done by cutting off the end of the scrotum and taking out the testicles in the ordinary way, pouring in a 20 per cent. solution of carbolic acid, after which the lambs were kept in a rather dark box stall for ten days. It is important that the operation be done as

quickly and with as little excitement and worry to the lambs as possible; better results would be obtained by castrating them when two or three weeks old. These lambs were again put on the stubble. The rape made a fine growth through September. About the middle of October they were put inside, fed a mixed feed of oats, bran and a little oil cake, commencing with 12 lb. and increasing to 11/2 lbs. per day, with two or three lbs. of mangolds and what clover hay they would eat up clean. This was continued for six weeks, when they were shown as lambs at the Provincial Fat Stock Show, Brantford, 1898, where two of them took 1st and 2nd in their class, and the trio were 1st for pen of three. They were then run through the winter with the ewe lambs on about 1/2 lb. of the mixed feed and two lbs. of mangolds with hay for about 150 days, and again turned on grass without grain. The one that won 1st in his class at London, the sweepstake in the Southdown class, and the grand sweepstake of the show, was run in this way till the middle of October. Having no rape this year, owing to drouth, for part of the time the pasture was very poor indeed. The other two wethers, one of which was 3rd in his class and the other 5th in the dressed carcase class, were put in with the show sheep on the 8th of July, getting an average of 1 lb. of mixed grain feed per day, with green food, vetches, peas and oats and was out in pasture at night till about the 8th of August, after which they were kept inside and clover hay was substituted for the green food. These two were shown for about six we 's at the fall shows which brought them to the middle of October.

The wether lambs born in April, that won 1st and 2nd prizes in their class, were castrated when young, and

run on the pasture till and after being weaned, without grain feed up to the middle of October. The other one shown, which was in the 1st prize penof three, was castrated in November (but this practice is not recommended).

The six ewe lambs were dropped in March and April, fed in the ordinary way till they were turned on grassabout the 1st of May, and got nothing more tili weaned the 8th of July. Four of these were gradually fed the grain mixture till 1 lb. per day was reached with green food as above, then taken the round of the fall shows, which brought them to the middle of October. The other two (which were twins), one of which won 1st prize in the class, ran on the grass and stubble till the middle of October. The lot were awarded 1st, 2nd, and 3rd in their class, and 1st and 2nd for pens of three. After the middle of October up to the time of the show, some 56 days, the whole lot were kept inside on clover hay, 3 lbs. of roots, and an average of 174 lbs. of the mixed grain feed per head a day.

COST OF THE GRAIN FEED.

To sum up the results, we find the grand sweepstake wether was in prime condition, and from birth, in feeding and fitting for the two years' shows, had consumed about 200 lbs. of grain fed at a cost of ic. per lb., or \$2. The other two wethers in feeding and fitting for the two seasons, including the fall shows, had consumed about 300 lbs. of the grain feed each, or \$3. These were too ripe and overdone, and when put on the block were entirely too fat to win, one dressing 66per cent. of his live weight, and that without shrinking, being within 1 lb. of the heaviest carcase in the show.

The 1st and 2nd prize wether lambs were in prime condition for the Christmas market, and had consumed only 70 lbs. of grain feed each at a cost of

The four ewe lambs fitted for the fall shows had consumed 170 lbs. each of grain feed at a cost of \$1.70 each. It will be seen that, in knocking about for six weeks at the fall shows, a large portion of this would be lost, from a mutton standpoint. The other two lambs, which included the 1st prize winner, consumed only 70 lbs., at a cost of 70c. each for the grain fed. This leads to the conclusion that six weeks is about the right length of time to feed lambs to put them in prime condition for the market. It must be borne in mind that well-bred lambs (not necessarily

pure-bred) of good quality feed at less cost per pound than rough ones of any breed; and that quality counts far more to the feeder than size, as well as being worth more per pound to the consumer.

It is difficult to arrive at the exact value of hay and pasture consumed; but, in this case, Southdowns being such small consumers, especially when on a good feed of grain, it would not figure very high. The result goes to show that the most profitable time for market sheep is before they are a year old. They will gain more in a given time up to that age than after. As an illustration and approximate estimate of the profits in feeding well-bred lambs, on the 23rd of October, when we had got these six ewe lambs fairly started to feed, we weighed them, and they ran from 87 to 108 lbs. each, or a total of 568 lbs. for the six; we weighed them again Nov. 29 h, when they went from 105 to 130 lbs. each, or a total of 705 los., an average gain oi 23 lbs. each in 37 days. This would add to their value nearly three times the cost of the grain feed consumed in that time. Another way of arriving at the profit is to take, for example, these six lambs, their average weight 117 lbs., at 5c. = \$5.85 each, and deduct from this the cost of grain and roots fed, which would be about \$1 each; this would leave a good margin on the rough feed in favor of the

#### Breeding and General Care of My Sheep for the Winter Fair.

By John Rawlings, Ravenswood.

The breeding and feeding of the three ewe lambs that won 1st prize, and the five lambs that won second place for the "Prince of Wales'" prize at the Provincial Winter Fair is as follows:

Our flock of registered Cotswolds was founded in 1886, when we purchased four imported ewes from Mr. James Snell, Clinton On these ewes we used such sires as Grey Face, 7865 (bred by Charles Gillett, England, and imported by J. C. Ross, Jarvis, Ont.), Ross, 7866 (also bred by Charles Gillett, and imported by J. C. Ross), a prize-winner at Toronto and London, and also in the States, and Standon, 4117 (bred by John Snell & Son, Edmonton, out of imported stock). In 1892 we added to our flock four shearling ewes from John Snell & Sons' flock and out of imported ewes. After this we used Charity, 4794, bred by J. G. Spell & Bro., an excellent stock sheep and the sire of some of the best ewes we have. Royal Topin, 8974; Commander, 8375; and Blucher, 8376 were also used with success. Blucher, 8376, especially, was an all-round mutton sheep, carrying the best fleece of wool we ever saw on a Cotswold sheep. In 1896 we

purchased from Mr. S. Coxworth-Whitby, Ont., Brilliant, 4491, imported by Joseph Ward, Marsh Hill. He is the sire of a great many prize-winners, and has left stock of good points in our flock. Our present stock ram, Lord Walton, 8771, the sire of the lambs exhibited at Loadon, was imported by J. G. Snell and bred by T. Gillett, England. He was never beaten in the show ring as a lamb, and is a wonderfully good getter. As regards the feeding and care of our lambs, we always aim to have our ewes in a good, healthy condition when the lambing season arrives, by giving them all the out-door exercise necessary, with plenty of good, nourishing food and pure water. As soon as the lambs arrive we build a creep in the sunniest part of the sheep barn, where the lambs soon learn to lie. As soon as they are old enough to eat, a trough is placed in the creep with oats, bran, and a little oil-cake, a second trough with pulped routs, and a crib with the very best clover hay, lucerne or alfalfa preferred. As soon as warm weather comes, we supply them with good. clean water, which they relish very much. When the sheep are turned on the pasture in the spring, we build a creep in the field and feed the lambs once a day with oats, bran and oil cake. We wean our lambs about the 1st of July, after which we feed grain twice a day. The ewe lambs we had at London were turned out in a good clover meadow and rape about the 1st of August, and received no grain till the 10th of November, when they were placed in an acre plot of lucerne and rape mixed and fed four quarts of bran, oats and oil cake mixed, equal parts of each, twice a day with all the lucerne hay they could eat.

# Breeding, Care and Feeding of My Prize-Winning Sheep.

By John Campbell, Woodville.

Six pure-bred Shropshires, and grades, sired by register-Shropshire rams were en-l by me. Starting with the tered by me. shearling registered wether, Blue Bell, 112222, winner of the second prize in class 16, section 2, and also the second in the Shropshire Special Competition, his breeder was Mr. James Bole, Woodville, Ont. The dam was Canadian bred, tracing several generations back to imported ancestry. His sire, bred at Fairview, was Tantalizer, 59972, a son of Royal Doncaster, 30989, winner of the second prize at the Royal Showin England, and fourth at the World's Fair, Chicago.

The Model, 133210, a wether lamb, bred at Fairview, winner of first premium in class 16, section 3, first in the Shropshire Special Competition, and first in pen of five lambs, winning the Prince of Wales' prize, was sired by The Best Type, 88775, a son of Newton Lord, 30983. The latter won at the

World's Fair, Chicago, five first premiums, including the championship for the best Shropshire ram of any age in the show. The Best Type at Toronto in 1897, won first place with one of England's most noted Royal Champion's in the ring, viz., Darlington.

The Model's dam, Campbell's 776-99634, was bred by Mr. S. Nevett, England, and won 1st in pen of five at the Shropshire Show in 1897. My registered ewe lambs, which won 1st in pen of three, class 16, sec. 5, were bred at Fairview. Their sire was Newton Lord, and the dams were Campbell's 664, 98582, sired by Fair Star (5177); Campbell's 666, 98584, by Fair Siar, and Campbell's 582,

77180 by Settler 58985.

The two dams by Fair Star, one of England's most noted sires, were bred by Mr. A. E. Mansell, Shifnal, England. The third dam was bred at Fairview. Her sire, Settler, was bred by Mr. Daniel Eardley, of Market Drayton, England. Settler sired Campbell's 540, 68735, winner as a lamb of the grand sweepstakes at Guelph Fat Stock Show in 1894. My fourth ewe lamb, sired by Newton Lord, had Campbell's 667, 98585, for dam; she was bred by Mr. A. E. Mansell. Her sire was Montford Dreamer, another of the noted stock rams which so largely helped to make Mr. Mansell's flock famous, in that he sired for him two rams which won the championship at the Royal, besides other winners of less renown. last mentioned ewe lamb, with my winning pen of three ewe lambs, and first prize wether lamb-The Modeltornied the pen of five which won the "Prince of Wales' "prize offered for the best five lambs of any breed. The awarding committee of four who were unanimous in making the award were: a breeder of Oxfords and Southdowns, one of Oxfords, another of Cotswolds, and one of Leicesters. All were bred by neighbors who used well-bred Shropshire rams in their flocks. My first prize yearling wether in class 29, section 2, was sired by Fairview Sort, 99.519, a son of Newton Lord and Campbell's 508, 56994, a first premium ewe at Madison Square Garden Show, New York City. The dam of the wether was a good common Leicester grade ewe. Besides winning in his section, this wether won first in the Shropshire Special Class.

The grade yearling cwe, winner of first place in class 29, section 1, was sired by Newton Lord. Her dam was a high grade Shropshire ewe, bred up from a common grade of some twelve years ago by the continual use of high-class Shropshire sires. This winning ewe later on was declared the best grade sheep in the show.

The wether lamb, winner of the second prize in class 29, section 4, and first in the Shropshire specials, was also sired by Fairview Sort. His dam was a Shropshire grade, bred

from a common grade ewe and by a Shropshire ram.

The pen of three grade wether lambs, class 29, section 3, winners of second honors, were sired, two by Fairview Sort, and one by Harrison's 235, 61709. Their dams were ordinary grade ewes, except as stated in the description of the single lamb in class 29, section 4, which was one of the pen of three.

My second premium ewe lamb in class 29, section 5, was sired by Fairview Sart, her dam being a good common grade ewe of no particular breeding. I have given the breeding in detail in order to show conclusively how important the use of first-class sires is in the flock, and how they will transmit their good qualities, even when used on grade ewes of mixed blood and varied type.

How they were fed.—During the first three weeks of the young lambs' existence the growth and development were maintained by feeding the mothers liberally with milk-producing feed. Clover hay cut when in fuli blossom, with a sufficient supply of pulped turnips, bran and crushed oats, all mixed together a few hours before using, kept up a flow of milk such as is essential to the rapid growth of the lambkins. Later, the use of the creep, and the regularly cleaned out trough, in which finely pulped turnips, with whole oats and bran spread over the turnips, were placed fresh twice daily. caused a steady growth of plump form, which is much easier maintained than regained if once lost. I found a roomy, sunny yard for lambs to take exercise in very helpful in late winter and early spring weather. When they were turned on grass the roots fed were gradually lessened in quantity, and a few peas were added to the oats and bran, to which they had access every night when the flock was yarded to save it from dogs. After weaning in July, aftermath and rape were ready for their use. Every morning and evening they had a run on rape, with a few hours on the aftermath between. Tares were ready to cut for feeding inside at noon about the middle of July. A small feed of the mixed grain and bran, to which about five per cent. of ground flax seed was added, was given night and morning. more than half a pound was allowed each lamb at first, and when the cool fall season set in, a third feed of the same quantity was given at noon. When rape and pasture depreciated in succulence, turnips were ready for use instead at the rate of some eight pounds to each sheep and lamb, divided in three feeds daily. A very small amount of milk, not more than a pint to each lamb daily was fed during the two months preceding the show, but I cannot say that it resulted in any noticeable improvement, comparing them with the grade lambs which did not come into my possession until August, and had no milk after weaning

at that date. The latter appeared to fatten more rapidly than the former when fed altogether in the same pen. Before I purchased the grade lambs they were pastured throughout the spring and summer on the roadside, and had no feeding except what they helped themselves to.

The yearlings in my exhibit were, last year, fed similarly to the lambs, as stated above, and were carried through the winter on unthreshed peas for the morning feed, about four pounds each of cut turnips at noon, a full feed of clover hay at 5 p.m., and four pounds of cut turnips to each at 7.30 p.m. In April mangolds, in about halt the quantity, replaced the turnips. The spring feeding was one pound of grain (the same mixture as lambs had at 5 a.m.); then to grass till 11 a.m., and when let into the barn at that hour three pounds of cut mangolds and clover hay were placed before them. One pound of grain at 5 p.m., and a run out to grass till hed-time completed the day's at-

When rape was ready for use they were turned on it morning and evening, led grain as formerly and green tares given as a noon feed in the barn. During harvest and fall, they and the lambs were penned together and had the same feeding as previously describ-Fresh water was always within reach, and the salt boxes were kept well supplied. No condiments were used.

Cost of feed consumed .- Here I halt, as it is not possible for me to give even an approximate estimate of cost. That is not considered in fitting animals for the show ring While it is wise to count the cost as closely as possible in nearly every line of operations on the farm, in my humble opinion, the person who will pay much attention to the cost of feeding or value of the constant labor required to successfully prepare show animals for such a contest as that of our Provincial Fat Stock Show, is one who will find it a very difficult matter ever to win in close competition.

#### FARM HELP EXCHANGE.

FARM HELP EXCHANGE.

The Farm Help Exchange has been started with the object of beinging together employers of farm and domestic labor and the exployers. Any person wishing to obtain a position on a farm or dairy, or any person wishing to employ help for farm or dairy, is requested to forward his or her name and full particulars to A. P. Westervelt, Secretary, Live Stock As octation. In the case of persons withing to employ help, the following should be given: particulars at to the kind of work to be door, probable length of engagement, wages, etc. In the case of persons withing employment, the following should be given: experience and references, age, particular department of farm work in which a position is desired, wages expected, and where last employed.

These sames when received together with pasticulars will be published FREE in the two following issues of the "Agricultural Gazette" and will afterwards be kept on file. Upon a request being received the particulars only will be published, the names being kept on file.

Every effort will be made to give all possible assistance, to the end that minible workers, male or female, may be obtained. Every memployed person withing to emage in farm or dairy work is invited to take advantage of this opportunity.

#### Help Wanted.

Wanted, good farm hand, must be a good ploughman and able to milk, if required. Will give \$240 a year, provide house, piece of land for garden,

wood in the bush and team to draw it. Man to board himself. No. 504.

Gardener, who is a good cattleman, wanted on farm near Brantford. Must be steady and reliable. Wages \$200 a year, with board and washing free. No. 505

Good farm hand needed for eight, nine, or ten months. Must be able to do all kinds of farm work, and be especially handy with horses and have no bad habits. Single man preterred. Wages \$14 to \$16 a mouth with board and lodging. Work to commence on or before April 1st. No. 506.

Wanted, a boy, aged 15 to 17; must be willing, pleasant and obliging, and able to work according to instructions and intelligently. Farm is well equipped with implements. His duties will be to do all kinds of farm work, and work in a sugar bush. He will be treated as one of the family and have the use of the library and farm journals. Send particulars as to ability and salary required from April 1st for S months to box 221, Ailsa Craig, Ont.

Farm manager wanted on a farm in Illinois. Must be capable of feeding and caring for pure-bred beef cattle and hogs, and fitting them for shows, if necessary. Owner attends to correspondence and selling. Must be good worker and reliable in every way. Married man with small family preferred. On this farm land is mostly in Wife would be required to CT2SS. board the other farm hands. Very little milking done. No. 507.

Wanted, on a large farm, man and wife with no children; man to work with stock and wife to take charge of boarding house. Also three good single men required that understand the handling of teams and are capable of doing all kinds of farm work. Give references and salary expected. Yearly employment and good wages to the right kind of men. No. 508.

Wanted a man to work by the year on a 150 acre farm. Must be a good milker and plowman, and able to do all kinds of farm work. Single man about 25 years old preferred, but a married man would be accepted if his wife would act as servant girl in the family. Must be honest and give reference. Wages, \$180 for a single man. For married man \$60 extra will be given if his wife will fulfil the requirements. Would like engagement to start March 20th. No. 509.

Wanted, a young man, between 20 and 30 years of age, interested in live stock, and capable of doing ordinary farm work well on a farm in South Wellington, where pure-bred cattle and sheep are kept and shown at large fairs. Will hire for a year or for eight months from April 1st. State wages asked. No. **3**8q.

Two men wanted for farm where dairying and general farming is practised; one a married man, with few or no children, who would be able to do the feeding, stable work and share of the milking. House will be provided and wood and fair salary. wife, if she wished, could make enough to keep the house by working at the homestead. The other man must be able to do all kinds of farm work, handle team, and deliver milk in city, if required. Men must be sober, reliable and willing to work. Employment at once to right men. No 390.

Wanted, married man to work by year on a farm near Guelph. have to board himself, but house, garden and firewood will be provided. Good wages to good man, with best of references. Work to commence the beginning of April. No. 391.

Capable man, temperate and industrious, wanted on farm in Illinois, where pure-bred stock is kept. State age, weight, and wages asked, when board and washing is provided, and when engagement can commence.

Wanted, single man to do all kinds of farm work, including feeding and caring for stock. Must be willing, sober, and of good habits. No.

Wanted to engage married man by the year, to board himself, where house and garden are furnished to him. Must be steady, reliable and used to all kinds of farm work. Privilege of keeping cow and poultry if wished. No. 394.

Place for three men on a farm in Minnesota, with a year's work guaranteed, if they suit. Wages \$240 a year, board and washing. References given if required. No. 395.

Wanted, about the middle of March, a good, practical and reliable man to look after stock, single man 30 to 40 years old preferred. Give reterences and experience. Wages \$25 a month. No. 396.

Wanted, on a farm of 150 acres, first-class single man, who can run all farm machinery, duties to commence March 15th, for 7 or 8 months. State wages wanted, with board, washing and mending. Farm about 26 miles north of Toronto. Also required good strong boy willing to work and able to drive a team. Will hire for 8 months from the present time. State wages wanted. No. 397.

Single man, or boy, wanted on a farm in New York State. One who has had experience on a stock farm or who is willing to learn preferred. Exhibiting at Fairs a specialty. No. 398.

Strong, healthy, trusty, young man, willing to work can get employment Work is on a farm in Manitoba. general farm worl: in summer, and care of stock in winter. Wages \$150 a year, or will give \$170 to good, wellmatured man. Place open at once. No. 399.

Wanted, as general farm hand in Alichigan, young man or boy about 16

or 18 years old. Must be industrious and have no bad habits. Board and washing and \$150 a year. Winter work the care of stock. No. 400 b

Wanted young man for 7 months. Must be sober, industrious and not smoke. Permanent position to satisfactory man. Wages \$17 a month. Work to commence April 1st. No.

DOMESTICS WANTED.

Good, general servant girl wanted to assist in housework on a farm three miles from Toionto, in family of three and no children. Constant employmen, good wages and good home to suitable party. No. 502.

Wanted, a good general purpose house girl for a small family in the city of Toronto. Must be good-natured and willing. A good home and long engagement for a good girl. No. 503.

#### Situations Wanted

Farmer's son wants place on a farm by the month or year. Can do general work, or would deliver milk. No.

First-class gardener, with 3 years' experience, and good references, is open for an engagement. No. 387. b

Farm manager, with 19 years' enperience as manager in England, and who is well up in care of feeding sheep, cattle, and pigs, wants similar position in this country. State wages. No. 388.

N.B.—Where no name is mentioned in the advertisement apply to A. P. Westervelt, Parliament Buildings, Toronto, giving number of advertisement.

#### Farmers' Institutes

Under this head the Superintendent or parmers' Institutes will each week publish matter relating to Institute work. This will include instruction to Scotstaries and other officers, general information about Institutes and Institute work, suggestions to delegates, etc. We will also from time to time review some of the published results of experiments conducted at the various Agricultural Celleges and Experiment Stations of Canada and the United State. In this way he hopes to give Institute members some valuable agricultural information which they might not otherwise receive, on account of not having access to the original publications. If any member at any time desires forther information along any of the lines discussed, by applying to us be will be put in direct communication with the Institution that has carried on the work.

G. C. CREKLMAN
Superintendent Farmers' Institutes
Parliament Heildings, Toronto,

#### Answers to Institute Questions.

A. M. Campbell, of Dominionville, Glengarry County, delegate to Farmers' Institutes in division 9, answered the following questions at meetings:

Q. What breed of cattle would

you recommend?

Ans. That depends on circumstances. If I were sending the milk to a cheese factory where the said milk was received by the pooling system, I would use the Holstein breed. although there are families and individual milkers in that breed that give a high per cent. of butter fat. If I were sending the milk to a factory that paid for the milk in proportion to the

butter fat, I would use the Jersey, Guernsey or Ayrshire, or a cross of either. If I needed an individual family cow I would use the Jersey.

Q. At what age would you have a

cow drop her first calf?

Ans. If the young cow has been well fed and cared for during the first and second years, she should have her first calf at two years of age. The young cow should be taught in youth to develop the milking habits.

Q. How many months would you milk a cow yearly?

Als. From 9 to 11 months. An aged cow in the decline of life I would dry off at nine months. I would milk a young animal eleven months in order to form the habit of being a persistent milker.

Q. Does it injure the offspring to follow the practice of milking a cow

too long?

Ans. It certainly does if the cow is a heavy milker. If a cow is not a large milker the strain of carrying her young and giving milk is not so great, but as we should raise our young stock for dairying purposes out of large milkers, I am in favor of drying them off after milking them ten months, in order to give them a chance to recuperate?

Q. Are you in favor of raising calves out of immature stock?

Ans. Not generally. Sometimes we have a superior sire or dam that we raise out of, but in this age when milk cows are cared for and fed so as to obtain the most profitable results, we believe in raising out of matured animals in order to secure cows of a strong constitution to stand the pressure of good feed and care.

O. How do you feed a cow previous to her giving birth to her calf?

Ans. That depends on her condition. It she is fleshy, I reduce the feeo, but in all cases I believe in feeding succulent food, such as silage, etc. The caretaker must use his judgment.

Q. V'hat is your feed in winter for

cows giving milk?

Ans. Silage of well-eared corn cut at the glazing stage, with well-cured clover hay, and ground peas and oats mixed with wheat bran, constitutes a good feeding ration.

O. Do you believe in purchasing foods?

Ans. Not when we can raise the necessary food on our own farms. But there are times when others can raise food cheaper than we can, and when such does occur it pays us to purchase from them, or exchange, as the case may be.

Q. Are there any other foods you have used?

Ans. We have used quantities of cotton-seed meal, gluten meal, and pea meal. They are all excellent foods, but the first named should be used with caution and not fed in large amounts. No foods should be used except in balanced rations.

To be Continued).

# The Farm Home

#### If Flow'rs Could Sing.

It flow'rs could sing, the poets lays Would no. be needed for their praise: They of which men have sung so long, Would sing their own enchanting song. What fragrant accents oft would that From out the rose's velvet throat. What soulful solace would they bring-If flow'es could sing.

If flow'rs could sing, how would they bless The love that lips dare not confess How would they voice the secret throe Of passionate and utter woe; How would they thrill the maiden fair Who wore them in her breast and hair; What tender tidings would they bring If flow'rs could sing.

If flow'rs could sing, the birds would die; What use were it for them to try, By any means, to e'er disclose The charms that render sweet the rose They lovely colors, have, 'tis true, But have they lovely fragrance, too? The birds would die from envy's sting-If flow'rs could sing.

Indeed, the world would be too sweet, If carols sang the marguerite In that fond hour when twilight's ear Is waiting woodland hymns to hear. The violet her scent, ere long, Would squander in the breath of song : And song would be too sweet a thing—
If flow'rs could sing.

--Frank Leslie's Monthix.

#### A Dainty Room.

By Cynthia Doering.

There are some farmers' wives and daughters who possess as elaboratelyfurnished and beautifully-arranged rooms as their city sisters of like means, but many find unsurmountable objects in the lack of chance to see and purchase and the means of transporting furniture and dainty belongings to their homes. They love pretty surroundings as much as anyone, but so much of the advice about home arrangement is so far over their heads that it is a weariness to the flesh to read it.

Plain fillings in wool ingrain, pretty matting, art squares and rugs, though very reasonable in price nowadays, are far beyond the reach of many a woman who reads these lines; but all can compass a rag carpet. Therefore, my tale of a dainty room may bring the very suggestion you are longing for. Once upon a time a lady wished to "fix up" a very pretty room; so she saved all her white carpet rags for two years, but they were not enough; she traded some of her colored ones for white with a neighbor, who was very willing, because no one likes to color rags. Then she had her carpet woven with all red warp and all white filling. She was very undecided whether to have red and white warp and the carpet woven basket-check, which would have made a white spot and been prettier, or to have plain red, but decided on the latter as more durable.

While the carpet was in process of preparing, she outlined a quilt; making nine blocks of a yard or muslin, she worked a pretty design in outline stitch, with turkey-red outlining cotton on each. Required five yards of muslin, but odd pieces can be utilized. She lined her quilt with bleached sheeting and quilted it, but many leave them unlined, using them like a spread. She also outlined a pair of shams; these can be bought with design already stamped for a quarter, but she used two yards of muslin and marked off the design from a neighbor's. She also had a linen "splasher" bureau and stand scarf outlined in turkey-red.

She made no effort to change the other furnishings of the room, other than to do up some old lace curtains and loop them back with bright red ribbons. The dainty, clean effect of these most serviceable additions to her bed-room you can imagine. I would suggest to anyone who sees a bright idea in the above, that a room with white wall and white paint, or white paint and pretty, light paper (do not, I beg of you, have red in it, or you will spoil the whole effect), would be best and easiest to secure as well.

Scrim or cheese-cloth makes pretty curtains for such a room. A pretty bed-room suite of cherry (imitation), containing seven pieces, can be secared from many of the large firms in the big cities, who will ship it to your nearest station, as cheap as fifteen dollars, and will prove far more serviceable, economical and pretty than home-made contrivances of boxes with draperies, which generally cost as much in the end as if they really were satisfactory, which they never are for

Wouldn't a blue room, with an oak bed room suite, be pretty? someone asks. Perhaps, but beware! Blue carpet warp fades gray; blue outlining cotton does not wash well, and there is too much work entailed in the preparation of this dainty room to put in colors that fade.

#### Mildew and Other Stains.

Mildew and iron rust are almost indelible unless they are taken out at once. One of the most successful methods of removing mildew is as follows: Mix half a cup of soft soap with equal quantities of powdered starch and salt. Squeeze in the juice of a leroon. Spread this mixtu e on the mildew spots, on both side.; spread the spotted cloth on the grass and let it lie in a strong sun one day and remain until the next morning, then turn it over and let it bleach another day on this side. Take the cloth up and rinse it well. Of course, such

stains can only be removed from white goods, as this stain eradicator would remove the color from any colored goods. Remove iron rust stains with salt wet to a paste with lemon juice. It is said that the juice of a tomato and salt are equally efficacious. Fresh ink stains may usually be washed out in clear water if no soap has been used on them, and the faint remnant of a dark color left bleached out on the grass after moistening it with soda and boiling water. If the stain is obstinate, soak it in sour milk, then wash and bleach it out. An excellent rule for removing the stains of shoeblacking, ink, mildew and other obstinate marks is as follows: Stir and strain through a cloth one pound of washing soda and half a pound of chloride of lime dissolved in one gallon boiling water. Put it into an old jar, not into a bottle, or into anything where the light will reach it, as it takes away some of the strength. Let it stand about an hour, stirring it once in a while before using To free any goods or clothes from sweet apple or fruit stains, mildew or blacking, soak the part stained in this solution until it is almost gone, and then rub it with soap and water. This mixture leaves a yellowish spot in place of the other stain, and it will come out easily with good rubbing in soap and water. The soap prevents this strong mixture eating into the cloth. This last stain-eradicator must be used with caution .- New York Tribune.

#### To Boil a Ham.

If you have been having trouble with the boiled ham falling to pieces when removed from the water try thisway. After thoroughly washing and cleansing the ham, tie tightly in a bag of muslin (flour sack is good) place a saucer in the bottom of the boiler to prevent the bag from scorching, lay the ham on the saucer and cover with boiling water. Cover boiler closely and cook for ten hours. It is not necessary to boil hard, but keep the water bubbling briskly. In the evening lift the ham out carefully by the mouth of the sack and leave undisturbed until morning, when, upon removing the sack, you will find you have a success of it. This is fine for sandwiches.

#### Dry Hop Yeast.

Put a pint of good strong hops in one-half gallon of water and let it boil half an hour. Have one quart wheat flour in a jar and strain in boiling hot water on the flour, stirring it well. When cool enough to bear your finger in, pour in one teacup yeast (compressed or home made) and set in a warm place until it rises. When light,

pour into a pan containing one quart sifted corn meal, stir and add enough more meal to knead it. Either roll or cut into cakes or crumble it, as you please; the crumbled will dry quicker. Place on a cloth that is spread on a table or board and set it where the wind will blow on it, but not in the sun. Stir often through the d. will soon dry, and will be good for three or four months.

#### Home Remedies.

For sore throat try a compress of cold water.

For bilious colic try soda and ginger in hot water.

For sick headache rub peppermint oil on the temples.

Tincture of arnica is the best application for sprains and bruises, and equal parts of lincture of arnica and spirits of camphor make an excellent liniment for rheumatism.

For cold in the head try snuffing powdered borax up the nostrils.

A hop bag wrung from hot vinegar is a quick relief for earache.

Snuffing tannic acid is one of the best remedies for a serious case of bleeding at the nose. Dissolve the acid in water.

If an artery is cut tie a small cord or a handkerchief tightly between it and the heart.

For legache and the "growing pains" of which the children complain wrap the leg in salt water and then in flannel.

#### The Ministery of Flowers.

Children love flowers, and with steady cultivation in the home and in the school, that love will develop into one of the most useful as well as delightful resources a human being can possess, bringing fresh interest, knowledge and pleasure, with each year, and no end of blessing and enjoyment to those around us. Through what other medium can we so swiftly and silently expr ss so much of the joy and sorrow of the heart? The mission of flowers is a far higher one than many suspect. There is a power in them that can bring a look of joy into a sufferer's tace. Would that everyone that has never tried it might seek the new experience lying in that direction.

#### Things Everyone Ought to Know.

A mile is 320 rods. A mile 1,760 yards. A mile is 5,280 feet.
A rod is 16½ feet or 5½ yards.
A square rod is 272¼ square feet. An acre contains 160 square rods. An acre contains 43,560 square feet. An acre is about 20834 feet square. A pint of water weighs one pound. A solid foot contains 7.48 solid

pints.

A square foot is 144 square inches. An acre contains 4,840 square yards. A quarter section contains 160 acres.

A square yard contains nine square feet.

A solid foot contains 1,728 solid inches.

A pint of water holds 2878 solid inches.

A gallon of water holds 231 solid inches.

A solid foot of water weighs 62 1/2 pounds.

A barrel (311/2 gallons) holds 418 solid feet.

A section, or square mile, contains 640 acres.

A bushel (struck) contains 2,150 solid inches.

A gallon of milk weighs eight pounds, to ounces.

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Our herd of thoroughbred Jerseys, 34 head, will be old without reserve at premises, March 22nd, at 12

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SILLS, SHAVER & SONS, Winchester Springs. Proprietors.
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Managing Director, --D. T. McAinsh J. W. Wheaton

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WARTS ON KNEE

Robert Moore, Brantford, Ont., writes: "I have a horse with a wart on his right knee, which is kept raw by lying down in the stable. Could you give me some way to heal or re-move it? I have used calomel, but he knocks the head off every night."

Warts, or verrucæ, as they are termed, are of frequent occurrence on the skip, and consist of a thickened condition of the epidermis, produced by accumilation of its scales. They are often found in large numbers on the teats of cattle. There are many methods of treatment, but patience and the constant application of the following ointment will produce a

Ammonium chloride ..... 1/2 oz. 

The ammonium must be dissolved in the castor oil and applied every day until it disappears.

A small piece of cotton wool and the knee bandaged every night will prevent the animal removing the

#### Manitoba Cattle Breeders.

The annual convention of the Pure-Bred Cattle Breeders' Association of Manitoba was held on February 22nd. The president, Walter Lynch, of Westbourne, in his address commented on the action of the C.P.R. in importing free sires. This was rather discouraging to breeders who were endeavoring to establish a business in the West. Owing to this action there was reported to be 300 bulls for sale in the The financial statement province. showed a balance on hand of \$233.27. At this gathering stirring addresses 49 MH 28 INCH .22 INCH

No **Trouble** With Fence.

It is built to kill trouble, and does kill trouble wherever it is put up. Why not? It is made of large Spring Steel Wires. It is heavily galvanized. It provides for expansion and contraction. All required of the fence user is to stretch it tight—then it stays up and is a fence for a lifetime. The

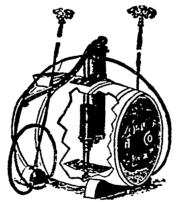
#### Field and Hog Fences American

are sold by agents everywhere, at the lowest price for which a perfect fence can be sold. If you fail to find our agent in your town, write to the manufacturers,

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All the Spramotor salesmen have to do to show this is to shut off all discharge outlets, and ask curomers to pump up the pressure. When this is done the handle is held tight, nothing is lost, showing the perfect mechanism.

All other machines lose from 5 to 15 strokes each minute from leakage with a pressure of 100 pounds. One machine in the market, which is claimed to have no packing, but which is in reality packed with metallic rings, lost 10 strokes each minute from leakage back through the plunger, and, to overcome this difficulty, put on leather-faced valves and plunger in the machines used at the Fall Fairs during 1809, displaying the rings to the public.

A metallic packing in a steam engine is a very satisfactory packing, ss it can be ciled and kept in proper working order, and are madeto expand in width as well as in diameter, but all mechanics know what the greatlifs when it is not kept oiled, and they are amused when told that it is a suitable packing for a sand pomp, which is just what a sprayer is when using Bordeaux mixture or whitewath.

Take two pieces of brass, and put sand and water between, and rub them together, and you will soon see what the result is.

Why throw away one-half your labor, when with the Spramotor you use it all at the norde. Each Spramotor is guaranteed, and the guarantee is good.

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TORONTO, Ont. MONTREAL, Que. LONDON, Oak WINNIPEG. Mag. were delivered by Messis. Hodson Grisdale, Yuill, Graham, Glennie, Renton, Prof. Henry and Dr. Rutherford, M.P.

The election of officers resulted in the following: President, Geo. Steel, Glenboro; 1st vice, A. Graham, Pomeroy; and vice, F. W. Brown, Portage la Prairie; vice-president for the Territories, A. McKay, superintendent Experimental Farm, Indian Head; secretary-treasurer, G. H. Greig, Winnipeg. Directors—Ayrshires, Thos. McCartney, Longburn; Shorthorns, W. W. Fraser, Emerson; Heretords, J. A. McKellar, Brandon; Holsteins, J. Glennie, Longburn; Jerseys, J. B. Pickling, Carman; Galloways, Wm Martin, Winnipeg; Polled Angus, J. Trequir, Welwyn, and additional, W. S. Lister, Middlemarch; C. C. Castle, Foxton, and W. Sharman, Souris.

#### Manitoba Dairymen.

The fourteenth annual convention of the Manitoba Dairy Association was held at Winnipeg on March 20th. The directors' report showed that very satisfactory work had been accom-plished during the year. A resolution was passed in favor of holding local conventions throughout the province and of securing dairy instruction from the Department of Agriculture. Complaints had been made that too much ill-cured or insufficiently-cured cheese was being placed upon the market. This was due to poor curing-rooms, and an effort should be made to remedy this difficulty. The treasurer's statement shewed the receipts to be \$332.69, expenditures \$276.35, leaving a balance of \$56.34. The reports of creameries and cheese factories presented showed that at the former the average prices received for butter ranged from 17.3c. to 18.36c., the patrons receiving from 13c. to 14c. per lb., and at the latter the average prices received for cheese ranged from 10c. to 10.58c. per lb.

During the convention able addresses on practical topics were given by Mr. and Mrs. Joseph Yuill, Carle-ton Place,Ont.; Prof. Henry, Madison, Wisconsin; R. G. Simpson; Geo. Har-court; J. W. Mitchell, superintendent Government creameries, N.W.T.; C. A. Murray, dairy superintendent; and C. Marker, Calgary.

The officers for 1900 are: President, W. M. Grawsick, Pilot Mound; 1st vice, Rich. Waugh; 2nd vice, W. B. Gilroy, McGregor; secretary-treasurer, Miss Cora Hind; directors—E. A. Struthers, Russell; D. W. McQuaig, Macdonald; Wm. Ryan, Ninga; A. R. Fanning, Newdale; J. T. Regehec, Hockstadt; D. Jackson, Newdale; and G. Harcourt, Wm. Scott, and D. Munroe, Winnipeg.

#### Sheep and Swine Breeders.

The annual meeting of the Manitoba Sheep and Swine Breeders' Association was held at Winnipeg on Feb. 21st. There was a good attendance. The financial statement showed a bal-

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JOSEPH STRATFORD, General Managerance on the right side of \$168.70. Addresses were delivered, chiefly on swine breeding and feeding, by F. W. Hodson, Dominion Live Stock Commissioner; J. H. Grisdale, Agriculturist, Central Experimental Farm, Otawa; Joseph Yuill, and others. The principal officers for 1900 are: President, Andrew Graham, Pomeroy; 1st vice, Wm. Kitson, Burnside; 2nd vice, J. A. McGill, Neepawa; and secretarytreasurer, George Harcourt, Winnipeg.

#### Western Horse Breeders.

The Horse Breeders' Association of Manitoba and the Territories held its annual meeting at Winnipeg on Feb. 23rd. The chief topic of discussion was a statement attributed to Dr. Mc-Eachran, who purchased the horses for the Strathcona mount, "That it is impossible to secure horses for military purposes in the Canadian West, and that it is necessary to bring in such animals from the United States." A resolution was passed repudiating this statement as being contrary to the The prices offered were too low, and this was the chief reason why good horses were not procurable. A number of cheap horses had been imported during 1899 at an average price of \$27 per head. It was felt that the importation of such inferior animals was injurious to the horsebreeding interests of the West, and a resolution was passed memorializing the Dominion Government to reserve a minimum value of \$50 per head for all horses imported. The chief officers for 1900 are: President, Dr. Rutherford; vice-president for Manitoba, J. A. Smith; vice-president for the Territories, C. W. Peterson; and secretary, Geo. Harcourt, Winnipeg.

#### Canada Central Fair.

The ar mal report of the Central Canada Exhibition Association for 1899 has been published. It gives a complete and detailed statement of the financial position of the association for the year and recommends certain lines of action for 1900. The 1899 exhibition, which extended over two weeks, was in point of exhibits one of the best shows ever held by the The directors Central Association.

report that financially it was not the success expected. This is ascribed to less favorable arrangements with the railways, the very unfavorable weather which prevailed during the show and the fact that the live stock was not on the grounds till the second week of the fair. The directors conclude that the experience of last year with a two weeks show did not prove sufficiently satisfactory to warrant a continuance of the extended time and therefore recommend that the dates for holding the 1900 fair be Sept. 14th to Sept. 22nd, inclusive.

The report gives a summary of the milking competition and a special account of the receipts and expenditures for the year. The receipts from the gate and grand stand amounted to \$22,855...2, which with the others including a number of bills payable make a total of \$49,534 89. The expenditures, including \$13,321.05 for prizes, were such as to leave a balance on hand of \$75 04. The total liabilities of the association amount to \$17,332, and the assets, which comprise fixtures, fixing, etc., to \$10,433.46, leaving a balance of liabilities in excess of assets of \$6,898.54. Considering the very unfavorable weather which prevailed during the entire fair of 1899 this seems to be a very good showing.

#### WANTED.

GOOD SHEPHERD wanted to go to Wisconsin—one who understands the care of sheep well, and will make himself useful in other work at periods of the year when the sheep do not require his attendance.

Write for particulars, etc., to

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By April 20th, 1900, a married man, good worker, who understands farming in all its branches, also the feeding and care of dairy cattle, and is a good milker. Must be reliable, bonest and trus worthy. Salary, \$200.00 per year, free house, garden, firewood and a good percentage on pure bred Ayrshue stock sold. Permanent situation to suitable person. Must have first-class references. Address,

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The Latest Methods of Profitable Farming.

The Latest Methods of Profitable Farming. How to renew Worn-out Land. How to Clean the Land of Weeds. Advantages of Shallow Cuttivation. What to Sow, and How to Sow it. Feeding for Profit. What to Feed, and How to Feed, etc., etc.

WM. RENNIE, Toronto.

#### Stock Notes

JERSEY SALE POSTPONED,-Owing to the Shaver & Sons, Winchester Springs, Ont., have been compelled to postpone the date of their great sale of Jerseys till Thursday, March, 22nd next. Our readers should remember this change of date and avail themselves the competitudity to secure some select and or this opportunity to secure some select and well-bred Jerseys. This firm for a number of years have been making a specialty of breeding high-class Jerseys, and are offering their entire herd without reserve.

VALUABLE INFORTATION OF AYRSHIRES. Mr. James Boden, manager for R. Reford & Co., Ste. Anne de Bellevue, Que., has recently imported a fine lot of Ayrshire cattle. The importation consists of sixteen head of choice importation consists of sixteen head of choice bred cattle, selected from the best herds in the south-west of Scotland, as follows: Five from Wm. Wallace, Mauchline; four from Andrew Mitchell, Barckeskie; five from Thomas Howie, Pairfield Mains; one from James Howie, Hillhouse, Salston; and one from James Walker, Kirkmuir, Stewarton. The Scottish Farmer, referring to the shipment, says: "The whole form a splendid shipment of the best class of dairy stock. Canadians who wish to make money will have Canadians who wish to make money will have want cows, large-framed, with good milky vessels and large teats. The tight vessel is not in favor, and the small teats are scorned. Mr. Boden says he knows at once on visiting a herd in this country whether the master himself milks. He never does so where a herd of small-teated cows with fancy vessels are kept. The sign may not always hold, but there is something in it." The c 'le are now in quarantine at St. John, N.B. where they will remain for several weeks, so that it will be nearly the first of May before they arrive at Ste. Anne de Bellevue.

IMPORTANT JERSEY SALE. - Messis. Sills, Shaver & Son, Winchester Springs, Ont., writes: Very unfortunately our sale had to be postponed until Thursday, March 22nd, on account of storm and roads being blocked up. We will hold our sale on premises, Winchester Springs, four miles south from Winchester, on C.P.R., from which intending purchasers will be taken over to farm from each train day of sale. Train from the west, nine o'clock. Train from the east 11.30, in time to reach sale. Any one wishing to come day before sale will be met at train and taken over and accommodated if they will notify us. Our list of forty head in all (including some having dropped since advertising before) will and must all be sold on the above date and will not be further postponed on account of weather. Anyone desiring extended pedi-grees of any of our list may have same by applying to the proprietors. Interested persons may have lists sent them with full descriptions and age and color, etc., for the asking. Our stock are of superior qualityas asking. asking. Our stock are or superior quanty as milk and butter producers, and have proven themselves as such. And as for pedigrees they are of the very best blood in the world, embracing some of the most noted Jersey blood, such as Stoke Pogis 3rd with twenty the stock daughters with a record ranging from 14 lbs. 5 ozs. to 36 lbs. 12½ ozs. in 7 days; the latter test being Mary Anne of St. Lambert 9770, and many others of the most noted Jerseys. Write for extended pedigree of bull which can't be beaten in Canada. He is a bull of very excellent dairy appearance and a most praiseworthy stock getter of ance and a most praiseworthy stock getter of superior quality, a model animal in every par-ticular. Would be a credit to the very best Jersey herd. Our cows are milkers, not pic-tures, and have the proper form and are well deserving of inspection by any one interested in this class of dairy stock. Remember, thoroughbred stock may be shipped at half-rate and may be sent into the States free of duty. We hope everybody interested in this famous breed will take advantage of this sale in procuring some noble stock. The reason in procuring some noble stock. The reason we are selling is that we are quitting farming altogether having leased our farm for a term of years and everything must go. Auctioneer, Mr. C. C. R. Morden, Niagara Falls,

# SOUND HORSE.



As a sound horse is always salable, Lumps, Bunches and Lameness cut the price in two. Almost any kind of a horse may be made sound by the use of

# KENDALL'S

the old reliable remedy for Spavins, Ring-bones, Splints Curbs, etc., and all forms of Lameness. Cures without a blemish as it does not hister. Price \$1; six for \$5. As a liniment for family use it has no equal. Ask your druggist for KENDALL'S SPAVIN CURE, also "A Treatise on the Horse," the book free, or address

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#### Co DES MOINES INCUBATOR

The BEST and the CHEAPEST

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The PER CENT, hatches are often reported by those who use these incubators, One reasonfor this record is absolute uniformity of temperature in egg chamber. Correct instructions for operating; has freproof lamp. A great mistake it would be to purchase an Incubation or Brooder without first getting a copy of our 148-page Catalogue. Send 6 cents for Illustrated Catalogue of Incubator, Brooder, Poultry and Poultry Supplies. copy of our 18-page Catalogue. Send 6 cents trated Catalogue of Incubator, Brooder, and Poultry Supplies.

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A mehine warrantes to the markine made, has non-sethate, during three trials any other markine made, has non-sethated during the same and the same and Built for Business. Seld on Henor. Your most back lift does not do all we claim. One days only—Our Beet to him. Address nearest office. CYPHERS INCUBATOR CO.

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CHICAGO III. WIVILED A TO THE TOTAL WIRE

BUILT FOR BUSINESS!

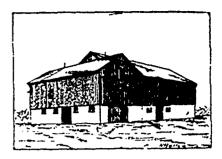
That's the idea. There's nothing fancy; nothing foolish about them; just straight, practical, lasting honest goods. The

No Supplied Moisture.

Self-Regulating, Self-Ventilating

are positively warranted to last TEN YEARS without repairs, and are guaranteed to OUT-HATCH,
during three trials, any other make of incubator on
the market—bar sone. THIN, ON Y 'UK M'NEY
BACK. Used exclusively at Experimental Farma,
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Stations. Daniels, the universal provider in the
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Cyphers Incubators and Brooders for Canada. Our
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here, but just drop us a line and state what you require. We handle nothing but the best. Satifaction
every time, or money refunded. C. J. Abanielz,
281 River St., Teronto, Ont.

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Do you intend building Barn Basements, or Stable Walls, or Walls of any kind? if so, use "Battle's Thorold Coment," which can truly be called the

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MALCOLM, Ont., Bruce Co. February 7th, 1900.

I am highly pleased with my stable flow; there is not a chip out of it, though I did alt the work myself after your Mr. Higar left I never hid such comfort in feeding stock as I have had this winter, and the amount that is saved in liquid manure is hard to calculate. Everybody that looks at my floors decides to use Thorold Cement.

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ESTATE OF JOHN BATTLE THOROLD, ONT.

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#### TORONTO INCUBATOR

the best hatching machine built in Canada. Full particulars free. Address

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most reliable, and cheapest machines you can buy. Fire proof heaters, fire proof lamps, absolutely self-regulating, supply their own moisture, and are fully guaranteed. For circular, etc., address the manafacturer, J. E. MEYER. Kozsuth. Ont-

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#### IMPROVED "AMERICAN" OAT

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#### SELECTED

It is extremely hardy, grows with vigor and rapidity, stands well, and adapts itself to almost any soil. Grain very black, large and plump. Our seed is grown from imported stock. Price per bush., 70c.; 5 bush lots, 65c. per bush.; 10 bush lots and over, 60c. per bush.; bags, 20c. each extra.

STOCKS of these new and improved outs are limited; order early and avoid disappointment. The bushel prices are for shipment from Toronto.

You can get Steele, Briggs' Famous Garden and Flower Seeds from your Resident Merchant, or send for them direct. THE BEST SEEDS THAT GROW.

A Handsome Illustrated 112 Page Catalogue Free, send for one to-day.

# The Steele, Briggs Seed Co., TORONTO, Ont.

# Market Review and Forecast

Office of FARMING. Confederation Life Building, Toronto, March 12th, 1900.

The recent snowstorms have greatly impeded country trade. Trade generally has not been so active of late, but there are signs of improvement in the outlook for spring trade. Money continues steady at 5 to 5½ per cent. on call and discounts on mercantile paper 6 to 7 per cent. Payments on March 4th were considered favorable, and show an improvement over last year. There was less renewal of commercial paper.

The wheat situation on the whole is more in favor of the seller than was the case a week ago, though when it comes down to our local markets there is very little change in values. The leading American markets, and particularly Chicago, have ruled higher and very much firmer. Whether this has been due to the actual condition of affairs in wheat or to an active speculative element it is hard to say. As cable advices are weaker it may be that the activity at Chicago and New York most of the week was due to the manipulators. However this may be, there are many who have great confidence in the future of wheat, and are not afraid to put their money in it at present prices, which are considered cheap. The world's supply in sight decreased 1,161,000 bushels during the week. The big now-storm, which has been pretty general all over the northern half of the continent, has improved somewhat the condition of the growing crop. Wheat offerings continue light. It is estimated that the marketable supply is much more than can be disposed of before the new crop comes in.

At Montreal things have been quiet, both for spot and futures. Spring wheat is quoted at 65½ to 66c., and red winter, west of Toronto, at 65c. Ontario red and white are quoted here at 64½ to 65c. west, goose at 70c., and spring wheat at 65c. east. No. 1 Manitoba hard is quoted at 78c. Toronto and No. 1 Northern at 76c. On Toronto farmers' No. 1 Northern at 76c. On Toronto farmers' market red and white hring 68 to 69c., spring file 70½c., and goose 70 to 71c. per bushel.

#### Oats and Barley.

The oat market is not so strong, both on this side and in England, where Canadian oats rule lower. Oats are in moderate demand here at 27 to 27.12c. for white east, mixed 2614c., and white 261 to 27c. west. On farmers' market oats bring 31 to 32c. per

There is some little enquiry for barley for export, but stocks are low. No. 2 is quoted at Montreal at 49 to 50c., and No. 1 at 51 to 53c. No. 2 is quoted here at 42\frac{1}{2} to 43c. east, and 41\frac{1}{2} to 42c. west. On Toronto farmers' market barley brings 45 to 47c. per bushel.

#### Peas and Corn.

There is also a quieter feeling in peas, which are quoted at points west of Toronto at 62 to 623c. per bushel and 63c. east. On farmers' market here they bring 61c. per bushel.

The demand for corn in the West continues good, and the surplus in the corn belt is below that of a year ago. American corn is quoted here at 41½ to 43c on track Toronto as to quality.

#### Bran and Shorts.

These are in good demand at Montreal, where Ontario bran is quotable at \$16 to \$16.25 and shorts at \$17.50 to \$18 in car lots. City mills here sell bran at \$14.50 to \$15 and shorts at \$15.50 to \$17 in car lots Lo.b. Toronto.

#### Eggs and Poultry.

The English egg markets are almost de-moralized owing to large increase in sup-plies. On this side the market has been kept fairly steady during the week by the cold weather and the snow-storms. At Montreal sales of new-laid have been made at 18c. in Receipts are large here, and there is a weak undercurrent. New-laid are quotable at 14½ to 15c. in large lots. On Toronto farmers' market new-laid bring 16 to 19c. per dozen. dozen.

Nothing is doing in dressed poultry. Prices on Toronto farmers' market are: Chickens, 60c. to \$1; ducks, 80c. to \$1 per pair; and turkeys 13 to 15c. and geese 8 to 9c. per lb.

#### Potatoes.

The Montreal market is stead; at 42½ to 45c. per bag in car lots. Prices are unchanged here at 38 to 40c. in car lots, and 45 to 50c. out of store. On Toronto farmers' market potatoes bring 45 to 50c. per bag.

#### Hay and Straw.

Prices for bay are firmer, owing to the snow blockade making it difficult to get supplies out. Deliveries at country points have been light. Baled hay in car lots has changed hands east of Montreal at \$7 to \$7.25. Montreal quotations are \$8 to \$8.25 for cars on track. The market here is firm at 89 to 89.50 for No. 1 for cars on track, and \$4.50 to \$5 for baled straw. On Toronto farmers' market timothy brings \$11 to \$13; mixed, \$9 to \$10; sheaf-straw, \$7.50 to \$9, and loose \$4 to \$5 per ton. 3

Montreal market keeps steady at \$1.25 to \$1.75 for flaxseed, and \$1.30 to \$1.75 for timothy, \$5.25 to \$6 for red clover, and \$5.25 to \$6 for alsike. American markets keep steady. On Toronto farmers' market red clover brings \$5 to \$5.75; alsike, \$5 50 to \$7; white clover, \$7 to \$8, and timothy, \$1 to \$1.35 per bushel.

#### Chause.

The cheese situation is strong and healthy, with prices studion is strong and hearthy, with prices still on the up grade. Cables are advancing and some look for finest Ontario to go up to 70s., as finest Cheshire is now 85s, per cwt. in England. Stocks are getting lower, and cheese is now about as scarce as butter. Most of the cheese on this side is being held at 124 to 13c. for finest white and 134 to 134c. for finest colored. Underpriced goods have sold during the week at 12 to 12%c. There has been more or less of solder-cheese made during the winter at some of the sactories, but, as supplies of milk have been small, no great quantity has been put upon the market. Montreal buyers have paid 11 to 11 %c. for January make and 11 % to 11 %c. for February, higher prices now being asked for Match make. This fodder-cheese has been largely for the local

#### Butter.

There is an unprecedented scarcity of butter all over Canada. Never for many years has there been such scurrying around by dealers in search of supplies. At Montreal prices have gone up to 30c. for choice creamery, with higher prices in a jobbing way, 32 to 33c. being named for the retail trade. Most of the butter made in the factories has been required for local consumption, and consequently not so much has been forwarded to the larger centres. Fresh supplies are reported to be on the way from England to Montreal. Creameries have been selling locally at as high as 27 to 28c. Sales of fresh creamery have been made at Montreal at 28 to 29c.,

and quotations there are choice creamery 28 and quotations there are choice creamery 28 to 29c.; good to fine, 26 to 27c.; and choice Western dairy, 25 to 27c. per lb. Butter is butter, and buyers do not stick much on quality. There is a large demand here and prices are firm at 26 to 27c. for tubs and 27 to 28c for creamery prints. Dairy lb. rolls are quotable at 25 to 26c., and large rolls at 25 to 26c. per lb. in large lots. On Toronto farmers' market butter brings 25 to 29c. per pound

There is little change in the cattle situation. Outside markets have ruled fairly steady dur-ing the week, though at Buffalo on Friday cattle were slow with the outlook reported dubious. London cables were lower on Friday owing to increased supplies. At Toronto cattle market the same day receipts were light, consisting of 657 cattle, 1628 hogs, 134 sheep, and 23 calves. Trade was fairly good, better and 23 calves. Trade was fairly good, better than las' week, with prices firm at quotations given below:

Export Cattle .- Choice lots of these sold at \$4.75 to \$5, and light ones at \$4.40 to \$4.70 per cut. Heavy export bulls brought \$4 to \$4.25, and light ones \$3.40 to \$3.65 per cwt. The bulk of exporters sold at \$4.75 to \$5 per

Butchers' Cattle - Choice picked lots of these equal in quality to the liest exporters and weighing 1,000 to 1,100 lbs. each sold at \$4 25 to \$4.60, good butchers cattle at \$3.75

to \$3.90, medium \$3.45 to \$3.65 and inferior to common \$2.60 t) \$3.15 per cwi.

Feeders.—Few choice heavy feeders are coming forward. Choice well-bred, heavy steers weighing 1,050 to 1,200 lbs each being \$3.75 to \$4 per cwt. Light steers weighing \$00 to 950 each being \$3.30 to \$3.60 per cwt. Feeding bulls sold at \$2.75 to \$3.40 per cwt.

Mockers.-Yearling steers 500 to 600 lbs. in weight sold at \$3 to \$3.25, and black and white steers and heifers of the same weight

white steers and heners of the same weight sold at \$2.25 to \$2.75 per cwt.

Mitch Cours.—There was a limited supply, only 12 fresh arrivals with prices ranging from \$30 to \$45 each.

Calves.—Veal calves are scarce with prices

firm at \$4 to \$12 each.

#### Sheep and Lambs.

These are firm and the market is active. At Toronto on Friday there was a good de-At Toronto on Friday there was a good demand for choice export sheep, with prices firm at \$3.50 to \$4 per cwt. for ewes, and \$2.50 to \$3 for bucks. Butchers' sheep sold at \$2.50 to \$3.50 cach. Lambs were firm at \$4.50 to \$6 per cwt. Picked ewes and wethers sold at \$5.50 to \$6 per cwt. At Buffalo on the same day there was a fairly active demand for choice lambs, but lower grades of sheep and lambs were dull and lower. Lambs, choice to extra, were quotlower. Lambs, choice to extra, were quotable at \$7.60 to \$7.75, and good to choice, \$7.50 to \$7.60 per cwi.

#### Hogs.

Prices for these remain steady at \$5.37½ per cwt. for best select bacon hogs not less than 160 nor more than 200 lbs, each, unfed and unwatered, and \$4.75 per cwt. for thick and light lats. Unculled carloads sold at \$5.25 to \$5.30 per cwt. Buffalo market of same day was fairly active at \$5.15 per cwt. for heavy and mixed, and \$5.05 to \$5.10 for Yorkers. Receipts at Montreal have been light and packers are paying \$5.75 to \$6 per cwt. for suitable bacon hogs. Dressed hogs are scarce, bringing \$6.75 to \$7, and at points in Western Ontario sales have been made at \$6.25 to \$6.50 per cwt. The Trade Bulletin's London cable of March 8th, re Canadian bacon, reads thus: "There has been little or no change during the week, Prices for these remain steady at \$5.37 1/2 been little or no change during the week, although a little quieter feeling is noticed. But as stocks are light, holders of Canadian are not pushing sales." are not pushing sales.

#### Horses.

The big sale of horses at Grand's Reposi-tory, this city, on Tuesday and Wednesday of last week was well attended considering the state of the weather. The big storm in-terfered very much with Tuesday's sale and prevented prices from going as high as they might otherwise have give. might otherwise have gone. 140 horses were sold, the top price being \$145 for a good going express horse, six years old, weighing 1. 450, of good action and in extra good condi-tion. A bay gelding, 6 years, same class, 100 lbs, lighter, sold at same figure. Good blocks, weighing from 1,300 to 1,500 lbs., sold from \$110 to \$140, and blocks from 1,-100 to 1,300 at \$70 to \$110 each. Good drivers brought from \$75 to \$140, and second-hand, used up, city horses, \$15 to \$20 each. There were no heavy draft horses sold. Mr. Geo. Chapman, the celebrated coachman from London, Eng., is here buying horses for coaching purposes in England. He has already purchased 60, most of them at Grand's, but has had to stop buying because of lack of ocean vessel space. He wants good drivers about 15.3 hands high and expects to visit Canada annually.

#### A Safe Investment.

Life insurance is coming to be looked upon more and more as a most desirable investment for the saving; of the wage-earner. The two necessary elements present themselves in some of our best Canadian life insurance companies, namely, security and profit; notable among these companies, as evidenced in their eighteenth annual report, presented on an-other page, is the "Federal Life," with its head office at Hamilton. The fact that this company has been able to add \$194,377.39 to the assets during the year just closed, and that the total assets have risen to \$1,060,-660 80, is sufficient guarantee of security, and the prompt payment of \$125,454 89 to policy-holders for death claims, endowments, surrender values, etc., indicates a sound, vigorous, yet liberal business policy. The Federal Life is to be congratulated.

#### Publishers' Talks.

#### Our Market Reports.

Mr. John A. Holgate, of Foxboro, Ont., in a letter to the publishers, after saying several kind things of FARMING puts special stress on the value of our market reports. He says, "I have been a reader of your valuable paper for some time and would not want to do without it for several times the price. The market reports are the most reliable giv-

The important feature of the market reports of FARMING is that they are prepared from careful data and observation in the interests of the man who has produce to sell. Some market reports are written for the bene-fit of the "bulls" and "bears" of the stock exchange.

The tarmer saves money when guarded by

data of this character.

FARMING's market reports are thoroughly independent. They are not intended to help anybody to corner the wheat or barley market. The intention is to put the farmer on his guard against this kind of thirg, and to show him how the most can be realized from the produce of his farm.

Other features of FARMING are valuable. but this is one that appeals directly to the farmer's pocket, a matter of dollars and cents with him, and it is no unusual thing for the farmer who intelligently studies the market reports of FARMING to be able to get a good many dollars extra for the load of grain that be takes to market. He goes there posted on conditions and does not find himself hoodwinked by somebody who wants to make something out of the farmer.

#### EIGHTEENTH ANNUAL REPORT OF THE Federal Life Assurance Company OF CANADA.

The eighteenth annual meeting of the shareholders of the Federal Life Assurance Company of Canada was held at the head office of the company in Hamilton, on March 6, 1900. The managing director, David Dexter, presented the following reports and financial statement: DIRECTORS' REPORT.

The directors have pleasure in submitting for the information and approval of the share-holders the following report of the business of the company, together with a statement of receipts and disbursements for the year which closed on Dec. 31, 1899, and of the assets and liabilities on that date.

New business consisted of eighteen hundred and sity-seven applications for insurance, aggregating \$2,639,700, of which seventeen hundred and ninety-five applications for \$2,497,900 were accepted; applications for \$141,800 having been rejected or held for further infor-

Annuity premiums to the amount of \$4,003 were also received. During the year, as in previous years, about 90 per cent. of the new business of the company was on its investment plans, showing that investment insurance still holds favor in comparison with other forms of investment -on which interest earnings are depreciating steadily. The feature of profit accumulations for a term of years is increasing in popularity.

The increasing prosperity of the country has extended its influence to life insurance, as

indicated by the large increase in the premium income and assets of the company.

The gross income of the company shows a gratifying increase over previous years, and the addition of \$194,377.39 to the assets is especially noticeable, the total assets having risen to

The security for policyholders, including guarantee capital, amounted to \$1,669,660.80, and the liabilities for reserves and all outstanding claims, \$946,403.03—showing a surplus of \$723,257.77 Exclusive of uncalled guarantee capital, the surplus to policyholders was

Assurances for \$106,000, on forty-five lives, became claims through death, of which amount the company was re-insured for \$4,000. Including cash dividends and dividends applied to the reduction of premiums \$21,460.52, with annuities \$2,572.07, the total payments to policyholders amounted to \$125,454.89.

As foreshadowed in last report, the securing of the special act of incorporation from the

Parliament of Canada has greatly increased our investments in the other provinces, much to

the advantage of the company,

The investments of the company have been carefully managed, and have yielded results considerably above the average results of all c. panies doing business in Canada. Expenses have been kept within reasonable limits, whil due effort has been made for new business. The chief officers and agents of the company are entitled to much credit for their able representation of the company's interest. The office staff have also proved faithful in the company's

The accompanying certificate from the auditors vouches for the correctness of the statements submitted herewith. All accounts, securities and vouchers have been examined by

IAMES H. BEATTY, President. DAVID DEXTER, Managing Director.

#### AUDITORS' REPORT.

To the President and Directors of the Federal Life Assurance Company:

Gentlemen: We have made a careful audit of the books of your company for the year ending Dec. 31, 1899, and have certified to their correctness.

The securities have been inspected and compared with the ledger accounts and found to agree therewith.

The financial position o. your company, as on Dec. 31, is indicated by the accompanying ment. Respectfully submitted,
H. S. STEPHENS,
Hamilton, March 1, 1900.

HERMAN E. TOWNSEND,
Auditors. statement. Respectfully submitted, Hamilton, March 1, 1900.

FINANCIAL STATEMENT, 1899.

| FINANCIAL STATEMENT, 1899.   |                        |                    |              |
|--|------------------------|--------------------|--------------|
| Premium income   | \$ 398,;<br>41,        | 366<br>9 <b>22</b> | 55<br>59     |
| Paid to policyholders for death claims, endowments, surrender values and profits  Expenses, taxes, dividends and re-insurance premiums | 133,                   | 154<br>574         | 89<br>14     |
| ASSETS 31st DECEMBER, 1899.  | \$ 440,                | 289,               | ,14          |
| Debentures and bonds   |                        | 213<br>541         | 62<br>69     |
|  | \$1.060,0              | 56o                | 80           |
| Reserve fund   | 924,2<br>22,1<br>114,2 | 140                | oo           |
|  | \$1,060,0              |                    |              |
| Guarantee capital  | 609.0                  | 000                | တ            |
| Surplus security   | \$1,669,6              | 660                | 80           |
| Policies were issued assuring  | 2,497,9                | <del></del>        | <del>~</del> |
| Total assurance in force   |                        |                    |              |

The medical director, Dr. A. Woolverton, presented an interesting report, of which one of the most gratifying features to shareholders and policyholders alike was the item showing the death rate for the year to have been the lowest experienced by the company in the past ten years.

An excellent oil portrait of the president, James H. Beatty, by the well known artist, J. W. L. Forster, was placed on the wall of the board room, as a token of the esteem in which Mr. Beatty is held by the directors and shareholders.

The retiring directors were re-elected, and at a subsequent meeting of the board Mr. Beatty was re-elected president, Lieut-Col. Kerns and T. H. Macpherson, M.P., vice-

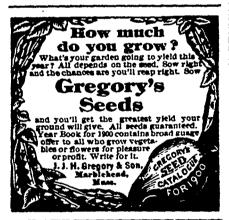
presidents.

WO hundred bushels of Potatoes remove eighty pounds of "actual" Potash from the soil. One thousand pounds of a fertilizer containing 8% "actual" Potash will supply just the amount needed. If there is a deficiency of Potash, there will be a falling-off in the crop.

We have some valuable books telling about composition, use and value of fertilizers for various crops. They are

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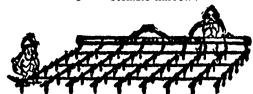
# Buttermakers, A Word

Impure Salt spoils good Butter; WINDSOR SALT makes good butter better -makes it, keeps it sweet; puts a higher price on it. Try it.

THR WINDSOR SALT CO.

LIMITED WINDSOR, ONT.

In these times of keen com-petition, is there such a great demand for this Ail Steel Flexible Harrow?



BECAUSE The Flexibility of the Harrow enables it to adapt itself as readily to rough and uneven ground as to smooth, and the oscillating motion produced by its flexibility pulvetizes the ground, and leaves it in a loose and more porous condition than any other Harrow, and it is made of the very best meterial money can buy for the purpose. The bars are made of Hard Spring Steel very stiff and strong, the birges and teeth being of solid steel, all of which are of a higher grade than is possible to use in any other make of Harrows.

ore than double the strength and wear in this Harrow than there is in any other make.

OUR MOTTU: "Not how Cheap but how Good."

TOLTON BROS Parties wishing a first-class Harrow will do well to write us direct or apply to the local agent.

BROS., GUELPH, Ont.

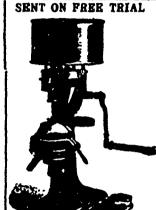
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We ask all intending buyers of Cream Separators to study the merits of the "Melotte," if they want to get the best results. The "Melotte" has beaten all competitors in public working trials. Takes one-third less power. Sent

For full particulars apply to

R. A. LISTER & CO.,

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SATISFACTION GUARANTEED



CONVENIENT and ACCURATE

As well as handsome. The entire Scale nickel-plated. White enamelled ware dish. Capacity, 12 lbs. No loose weights. Requires no table room. Always ready for use. Easily kept clean. For sale by all hardware dealers. Prices moderate. Made by

> THE GURNEY SCALE CO., HAMILTON, Out , Canada

# Persiatic Sheep Dip and Animal

#### POSITIVELY NON-POISONOUS

Kills Ticks, Kills Lice, Heals Wounds, Heals Ulcers,

Cures Scab and **Greatly Improves** Quality of Wool. Removes all Insects,

Removes Scurf and Prevents Rubbing. Thoroughly Cleanses the Skin, leaving Coat Soft and Glossy.

Leading Stockmen endorse it as the cheapest and most effective "Dip" on the market. Sold by Druggists, 50c. per qt. can. Special terms to Breeders requiring large quantities. Made only by

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STOUFFVILLE, Ont.

#### **ULRICH'S** Ensilage Corn

NAMMOTH WHITE YELLOW DENT

E. R. ULRICH & SONS,

SPRINGFIELD, ILL.

Ask your dealer for samples and testimonials.

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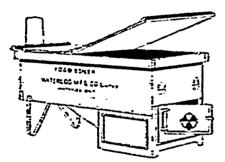
# Settlers' One-Way

To Manitcha and Canadian North-West will leave Toronto every TUESDAY during March and April,
Passengers travelling without Live Ftock should take the train leaving Toronto at 2 p.m.
Passengerstravelling with Live Stockshould take the train leaving Toronto at 9 p.m.
Colonist Sleeper will be attached to each train

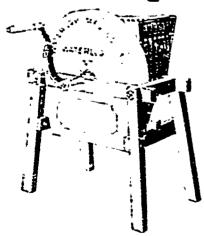
Colonist Sleeper will be attached to each train
For 'ull particulars and copy of "Settlera"
Guide "apply to any Canadian Pacific Agent, or to

A. H. NOTMAN
Ant Gen. Pass. Agent
King St. East, To-onto.

# Food Boiler



# Root Pulper



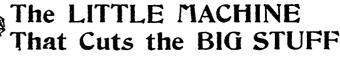
Side Wheel or Cylinder-Steel Shafts fitted with reller bearings Reversible Knives. Can be used as Slicer or Pulcer.

Write for circulars.

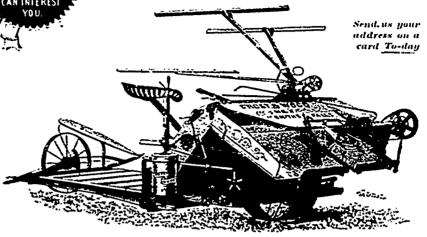
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