

# THE Farming World

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PAPER FOR FARMERS AND STOCKMEN

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**LOT 3.—Queen May—2815.**—White and Brown, calved January 10 h, 1895; bred by John H. Douglas, Warkworth, Ont. Sire, Dominion Chief—1214. Dam, Fairy Queen of Danjop (Imp.)—2009, by Opposition of Danjop—660; Auchindoun (in Scotland) by Redstone (in Scotland).

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**THE FARMING WORLD,**  
TORONTO, ONTARIO.

# The Farming World

For Farmers and Stockmen

VOL. XX.

MARCH 11th, 1902.

NO. 10

## A Dairy Number.

THE issue of The Farming World for April 1st, will be devoted largely to the dairy interests. We hope to make this number of special value to all dairy men, both makers and patrons. Several leaders in dairy thought and practice in Canada have promised articles and we feel sure that the advice they will be able to give, at this season will be of distinct advantage to those engaged in dairying. The number will be handsomely illustrated. Parties wishing to have copies of this number sent to friends will kindly send in the names early. As an unusually large edition will be distributed and circulated, this number will be of special value as an advertising medium. Application for space should be made early.

## The Farmers' Seed Supply

We have reached the time of the year when farmers should begin to think seriously in regard to preparation for the spring season. There are two dominant factors always to be considered in the preparation of the seed bed. The first factor is the character of the seed to be sown, and the second the character of the soil. It is the former of these that we desire to deal with just here.

Every farmer should make sure that the grain or any other seed he puts into the soil with the expectation of securing a crop is of the right kind and is possessed of those qualities that will enable it to produce a vigorous growth in the future plant. Two seeds may look alike and still one may be of very much more value than the other as a crop producer. Not only should seed be clean and free from weeds but it should be plump and well matured. Then there is a great deal in the ancestry of seeds. A seed may have every appearance of being good and still may have come from a coarse inferior plant that one would not like to have reproduced again. This is well illustrated in some literature recently sent out by the Department of Agriculture at Ottawa. Mr. G. H. Clark, chief of the seed division, speaking of the sources of turnip seed, says:

"For instance, an ideal turnip is one having a small neck, and top growth. Such a root when planted will produce a comparatively small growth of stalks, and consequently a small amount of seed, but the seed from such a root is apt to produce a crop like the mother root which was planted. On the other hand a small turnip having several root prongs, and an excessive growth of top coming from

two or three separate neck growths will transmit its like through the seed to the next crop. Seed can be grown from such roots much more cheaply than from selected roots, because, in the first place the mother roots are culls, and are not as valuable for feeding, and secondly, they will produce a much larger quantity of seed."

Dealing further with the question of root crop seeds, Mr. Clark states that if farmers were acquainted with the sources of supply of these seeds and the avenues through which they pass before they reach them, they would be a great deal more particular before making their purchases. Practically all the seed for our root crop is grown in foreign countries and is imported by our larger seed firms. Upon the honesty of these firms depends largely the quality of the seed brought in. If they buy from the European growers, who grow seed from selected pedigreed stock all well and good, but if they buy at a lower price seed that is grown by men whose chief aim is to produce a large quantity independent of the quality of the crop it will produce, so much the worse for the farmer in Canada who buys such seed. In the former case the seed is grown from selected plants, from roots which have an ideal size and form and are known to be true to name.

Another statement of Mr. Clark's is well worth quoting here:

"During the last ten or fifteen years the seed trade has, to a great extent, been passing from the hands of seedsmen who devote all their time to a study of seeds and the seed trade, into the hands of local dealers. Unfortunately, fair competition in the seed trade, is practically impossible, since the appearance of most commercial seeds is but a slight indication of their real value. The competition has been, and is too largely confined to prices alone. Farmers continue to patronize the local dealer who is able to quote a low price for his goods. The local dealer demands a low priced seed of the wholesale firms, and in turn there has been a growing strife among wholesale seed firms in the buying of cheap goods, with which to supply local dealers."

The protest here against the buying of seeds merely because they are cheap is well taken. The buying of cheap inferior seeds is a most costly business for the farmer. He may save a dollar or two on his purchase, but he will lose perhaps a hundred times that amount in the inferior crop raised. Nothing but seed of the very best quality should be put into the soil upon

which time and labor have been expended in getting it into condition for the seed.

But it may be asked where is the remedy? How may the farmer be certain that he is getting good seed even if he does pay a high price for it? The only remedy we know of is to purchase seeds from thoroughly reliable seed firms even if the price is higher. So far as the local country dealer is concerned he buys to a large extent in the cheapest market with little regard to quality and sells accordingly. But reliable firms who have good seeds have had little difficulty in disposing of their higher priced seeds to the intelligent farmers who understand the value of good seeds. And so a little educational work along this line may lessen the market for these cheaper seeds and compel the local dealer to keep only the best and to secure his supply from reliable houses.

Dealing further with the question of legislation governing the seed trade, Mr. Clark says:

"Appeals have been made, both by seedsmen and farmers, to place such restrictions on the seed trade, as will serve to withdraw the responsibility connected therewith, from the hands of incompetent local dealers. With root crop seeds this aim may be reached by allowing only reliable seed houses or seed importers the right to place such goods on the market; by allowing them to place goods in sealed packages, each package to be properly labelled, and to bear the name and consequently the reputation of the seed house, in the hands of local dealers to be sold on commission only. Official interference in the seed trade may have objectionable features. Perhaps the most striking example of where legislation has been applied to improve the conditions under which commercial seeds are sold, is in the State of Maine, where all seeds sold must be accompanied with a statement, showing the percentage of pure and vital seeds. They have extended to their seed trade a modification of the Act which is used in Canada to regulate the quality of commercial fertilizers, and the results have clearly demonstrated that, whatever evils may accompany an enforced guarantee system in connection with the seed trade, it is an effective way to improve the quality of commercial seeds, especially of clover and grasses, of which a great deal is sold in some districts in Canada, that contains large quantities of noxious weed seeds and is a decided injury, not only to the farmer who buys it, but to the locality where it is sown."

This whole subject of seed supplies

is most important and whether it would be expedient or not to place restrictions on the trade as above we are not prepared just at the moment to say. It might be possible to limit the sale of seeds to certain reliable firms who could guarantee quality. But it is a question whether a large importing firm could guarantee seeds other than to supply the source from which the seeds were procured. Of course the percentage of vital seeds could be given and perhaps these two would be a sufficient guarantee to give. Some of the larger seed firms in Canada are adopting the package system and if the firms are reliable the farmer is more likely to procure good seed in their packages than by buying seed sold in bulk. As the question is of considerable importance we would be glad to hear from those interested.

### Prize Lists for Horses

The horse breeders at their recent meetings spent a good deal of time discussing the prize lists of our fall fairs and making suggestions for the amendment of these. For the large fairs where prizes are given for stallion and his get, it was decided to ask that this be changed to four of the get of one stallion. This will give a show of

the produce only without requiring the stallion to be fitted for the show ring. Where a horse has made his show yard record and has gone into the stud as a breeder it is not in the best interests of his produce or his owners to keep him up to exhibition form. If he is brought out in ordinary field condition he suffers by comparison with those brought out in the best bloom. In the class for mares it was suggested that a class be made for aged mares (mares not giving milk). Formerly only a brood mare with foal at foot could be shown, and this includes many good mares who may miss a year or lose a foal.

In the harness classes it was suggested that there be a prize for a single horse in harness, as well as for matched teams. Many farmers have good individual animals and cannot match them. For the heavy breeds then a prize was suggested for best cart horse and for the others for best horse in harness to a wagon or dray. In the light classes this has always been provided for at all shows. It was also suggested that at the larger shows there should be separate classes for geldings, which are such a prominent feature of British shows.

he is now secretary. This body needs a strong hand at the helm to guide its operations. Mr. Harcourt is in entire sympathy with the dairy business and will doubtless accomplish much for its advancement.

The secretaries of the various associations for 1902 are as follows:

Pure-bred Cattle Breeders—Geo. H. Greig.

Sheep and Swine Breeders—Geo. H. Greig.

Horse Breeders—Geo. H. Greig.  
Dairy Association—Geo. Harcourt.

Poultry Association—C. H. Wise.

The Legislature adjourned on Saturday last, its expiring moments being the most interesting of the session. The last half hour was employed by Mr. C. A. Young, M. P. P., in talking against time, in order that the report of the Committee on Agriculture might not come to a vote. As President of the Grain Exchange, Mr. Young naturally objected to the criticisms of the Exchange and of the methods of the grain trade in general, contained in the report. The mover and seconder of the report fidgetted in their seats, the time was short, but they could do nothing. The first gun of the royal salute announced that the Lieutenant-Governor was on his way to prorogue the House. Still Mr. Young talked on. A beatific smile spread over his countenance as the trumpets announced the Governor was at the door, but still he talked on until the black and gold uniform entered the chamber, and the report was thereby condemned to everlasting oblivion. Thus, the entire labors of the Committee on Agriculture came to naught. During the session it has examined many witnesses and taken much evidence, and its findings were a severe censure on the Grain Exchange, the grain dealers, the railway companies, and the Grain Act. There is said to be considerable dissatisfaction among the country members of the Legislature over this incident.

The Stock Breeders' Associations of the Northwest Territories were well represented at the Manitoba Breeders' conventions, by their managing director, Mr. C. W. Peterson, who took an active part in the meetings. Besides his address on judging at agricultural fairs, Mr. Peterson was on the programme of the Horse Breeders' convention for an address on horse breeding in the Territories. This gentleman has recently inaugurated a new movement among the farmers of the Territories, nothing less than a Grain Growers' Association. The object immediately in view is to combat the evils of the elevator situation in the Territories, but many other matters affecting the welfare of the farmer are to be considered in due course. The organizations are local but have a central or executive committee to ensure harmonious and united effort. We shall expect to hear more in future of this organization.

## Our Western Letter

Convention Echoes—No Live Stock Commissioner Appointed—The Legislature Adjourns—Grain Growers Organize.

Winnipeg, March 3rd, 1902.

The best laid plans of mice and men have a proverbial aptitude for working out otherwise than their promoters expect. So it happened with the movement instituted by the Breeders at their recent convention. The motion was to nominate a joint secretary, who, it was expected, would be appointed Stock Commissioner and Superintendent of Farmers' Institutes by the Government. It was expected that there would be considerable competition for this anticipated prize, and there was no room for disappointment on this score. The rival factions were in evidence at each step, but the battle royal came off on Friday, the last session of the convention, when the executive committees of all the associations met to report the action of their various bodies and take joint action thereon. Five associations were represented, of whom three placed in nomination Mr. G. H. Greig, editor of the *Farmers' Advocate* (Western edition), and two nominated Mr. Geo. Harcourt, editor *Northwest Farmer*. Both sides were determined not to yield. Finally, after a very tumultuous meeting, during which personalities are said to have been freely employed, it was decided to submit both names to the Minister of Agriculture, who might take his choice.

Now the humor of the situation

comes in. Both nominations were rejected by the Hon. Minister. He refused to appoint either of the gentlemen named. Result—The associations say they were deceived by their officers, who claimed to have the Minister's promise to accept their nominee; the officers claim to have been misled by Mr. Andrew Graham, who seems to have been chief engineer of the scheme. Mr. Graham claims he had the Minister's promise, which the Minister, in turn, denies. The gentlemen chiefly concerned will spend some time trying to solve the great question, "Where are we at?"

The convention of the Horse Breeders' Association probably attracted less attention than any of the others on the week's programme. Nevertheless, the convention was in every way a notable one. The programme of addresses and the practical demonstrations in examining horses for soundness, etc., were of exceptional merit. This association has made most remarkable growth during the past three years, under the secretaryship of Mr. Geo. Harcourt, who indeed rescued it from oblivion and placed it on a footing equal to the other breeders' associations.

The success which Mr. Harcourt has had in organizing the above association on a working basis leads to the expectation that he will accomplish the same results for the Dairy Association of which





Dr. Andrew Smith, President, Industrial Fair Association

## The Industrial Fair Association

There was a large attendance of members at the annual meeting of the Industrial Exhibition Association held on Wednesday of last week. Representatives to the Association were present from a number of outside points and the greatest interest was shown in the proceedings. The position of Director on the Industrial Fair Board is one eagerly sought for and the interest in the meeting centered nearly altogether around the election of officers. This part of the business was, however, proceeded with with more dispatch than usual, and all the business of the meeting was concluded early in the afternoon in sharp contrast to former years when darkness or an evening session brought the proceedings to a close.

There has been a lot of discussion in the press of this city in recent years in regard to the electoral district society and the position it occupies in relation to the Exhibition Association. The larger portion of the discussions at the annual meeting this year was given up to this question. But as this is only of local interest it will not be necessary to go into the matter here. It is of little concern to the average exhibitor or visitor from the country or from a distance, who the Directors of the Exhibition are or who elects them, so long as they are competent men interested in the welfare of the Exhibition and in maintaining it as one of the best all round annual agricultural fairs in America.

The directors have acted wisely in the past in interesting the various breeding and other agricultural organizations in the work

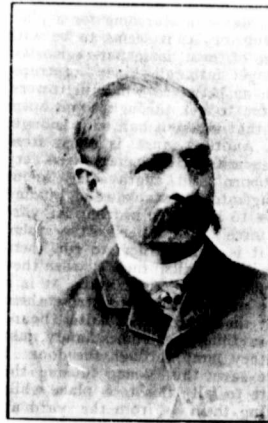
and management of the Exhibition. So long as this is done we believe the great agricultural interests of the country will stand by them and aid materially in making each annual Fair a greater success than the previous one. There is a growing feeling in Toronto that the management of the Exhibition should be more directly under the control of the citizens and the city councils. While in some respects this might be of advantage, we can see in it an element that might lead to the estrangement of the agricultural and kindred interests from the Exhibition. The more the Exhibition Association, and we speak advisedly on this matter, can increase the representation to the Association and also on the Board of Directors from such organizations as the Canadian Manufacturers, the Live Stock and Dairy Associations and kindred societies of Provincial and Dominion wide influence the greater power, will the Fair wield throughout the country. We are pleased to note a tendency in this direction during the past year or two in so far as the agricultural interests are concerned. Last year two new directors, Mr. A. F. MacLaren, M. P., representing the dairy interests, and John A. McGillivray, representing the Dominion Cattle Breeders' Association, were elected. At the meeting last week another new director was elected, Mr. Robert Miller, representing the Dominion Shorthorn Breeders' Association. These are representative men who will, as they have done in the past, render valuable services both to the Exhibition and to the important interests they represent.

The annual report of the directors referred to the splendid Exhibition of 1901. Though falling behind those of recent years from a financial point of view the Exhibition itself was, so far as the exhibits were concerned, the best ever held. The amount paid out in prize money exceeded that of 1900 by \$2,197. Gratification was expressed that the citizens of Toronto had voted sufficient funds to erect new manufacturers and dairy buildings and a new art gallery. Favorable comment was made regarding the butter-making competition and the exhibit and lectures on sugar beets, two educational features that last year created considerable interest.

The financial statement showed that the total receipts were \$80,701.55, and the expenditures \$96,895.26, leaving a deficit of \$16,193.71. Of the expenditures \$31,886 were for prizes. The deficit was owing to the large falling off in attendance, due largely to bad weather and to the close proximity of the Pan-American and to some additional expenditure not incurred in previous years.

At the meeting the Aberdeen-Angus Association and the Harness, Hunter and Saddle Society were given representation to the Association.

The directors elected for 1902 are: S. E. Briggs, Toronto; Ex-Ald. E. Strachan Cox, Toronto; H. N. Crossley, Toronto; Hon. John Dryden, Minister of Agricul-



H. J. Hill,

Manager, Industrial Fair, Toronto.

ture; R. Y. Ellis, Toronto; John K. Leslie, Toronto; Ald. Adam Lynd, Toronto; A. F. MacLaren, M. P., Stratford; John A. McGillivray, Toronto; Ald. Geo. McMurrich, Toronto; W. K. McNaught, Toronto; Ald. Jos. Oliver, Toronto; Dr. J. O. Orr, Toronto; B. Saunders, Toronto; R. J. Score, Toronto; Ald. O. B. Sheppard, Toronto; Dr. Andrew Smith, Toronto; Ald. J. J. Ward, Toronto; W. E. Wellington, Toronto; Robert Miller, Stouffville.

## Management of Brood Mares

In a paper read by J. P. Foster, V. S., before the Minnesota State Veterinary Association, upon the above subject, there is a great deal of information that is of inestimable value to those having in charge brood mares, and we commend its careful perusal to our readers:

On the stock farm where the only revenue derived from the mare consists in the production of a foal it is necessary for the owner to use his best effort toward getting every one of his mares in foal each year; then, after getting them in foal, the risk of accidents tending to produce abortion should be carefully considered, and all the seemingly minor details of everyday management and feeding should be attended to with the utmost care and attention. As regards the ordinary causes of abortion (exclusive of contagious abortion and those that are a sequel to debilitating diseases, such as influenza, pneumonia, etc.), I have noticed cases that I am sure were produced by the following causes, as the abortion took place in a few hours after the apparent mishap had occurred:—

1. Slipping on icy spots and either falling or producing a strain.

2. Fighting with other horses and getting kicked in the abdomen.

3. Getting pinched in box-stall doors while entering stall (this is where the doors swing out).

4. Getting into deep snowdrifts or muck holes, thereby producing strains.

5. Mares in searching for a place to rub, or, as it seems to be with some of them, from pure curiosity, will get into all kinds of traps, such as between windmill towers, or try to get through some opening that is about half wide enough.

6. Another cause is abuse from attendants. Some mares are very stubborn and aggravating about going into the stable at night, and have to be driven in from the yard by force; then, after getting them in, it is still harder to run them into their stalls; finally, when they do go into the right stalls, it is a very natural thing to strike them over the rump with a halter, board or anything that comes handy, just as they jump through the door. I once saw this done, causing the mare to fall; this took place while letting them in from the yard at evening, and the mare lost her foal that night. Of course, there are many other causes that produce abortion, and the foregoing are simply examples of the few of the minor accidents that might happen at almost any time.

The remedy for this class of accidents is prevention. If there is ice in the yard, and there is too much of it to be chopped up, ashes or manure may be spread over it and then wet down so that it will adhere and freeze to the ice underneath.

The approaches to the stable door should be arranged so there will be no sill to step over, as a mare will sometimes get just a

slight toe-hold with one hind foot in going over a sill and slip off just when the most weight comes on the foot, thereby either causing her to knuckle at the fetlock or causing abnormal extension of the hock and general concussion. As regards diet, we should be careful to see that the food is of the best, and that no smutty corn or rusty oats is fed.

In warm weather the best place for a mare to foal is out of doors on a good grass plot, but in the early spring arrangements must be made for foaling inside in a good-sized box-stall, in which there should be plenty of bedding. Mares that foal inside should be watched both night and day, so that in case of nonrupture of the foetal membranes during labor they can be opened by the attendant before the foal suffocates (this also applies to mares foaling out of doors). Another reason for requiring an attendant is to prevent the mare from lying with her hind parts against the sides of the stall, thus interfering with the delivery of the foal. These are the principal difficulties met with by the attendant, exclusive, of course, of the many different phases of difficult parturition. Immediately after foaling the foal should be carefully placed in one corner of the stall, where the bedding is usually comparatively dry; the stall should then be thoroughly cleaned out, removing the afterbirth and all of the wet straw and drying off the floor beneath as well as possible. The stall should be rebedded with dry straw at once, before the foal attempts to stand, as it is bad policy to allow a young foal to slip and sprawl about on a slippery floor. This should be done regardless of the time of night or how sleepy the attendant may be, and it will be found that small attentions of this kind will go a long way toward making the business a success.

### American Bronchos.

The deputation appointed by the annual meeting of the Dominion Horse Breeders' Association, Robert Beith, M.P., and Lt.-Col. D. McCrae, recently met the Finance and Customs officials regarding the undervaluation of broncos which have been imported in large numbers from the United States and sold by auction in many places in Ontario, Manitoba and the North West. In some cases these animals have been driven across the border in the West and shipped to Ontario as Canadian bred. They have been the culls of the Western horse ranches. Many of them small, ill-made and sometimes quite vicious animals—a very undesirable class of animals for Canada.—In several cases these have been entered at a customs valuation of \$12, paying \$2.40 per head duty and have then been sold from \$25 to \$120 by auction. The wonder is that farmers and breeders of Canada could be

found to give such prices for stock of such breeding. In many cases accidents have followed from the vicious nature of the broncos. The deputation asked the Minister of Customs to look into the matter of valuation and requested that the law be made more stringent as to undervaluation and suggested that a minimum valuation of \$100 would be in the best interests of farmers, breeders and users of horses in Canada. Those animals not worth that amount were not fitted to improve the horses of the country and should therefore be excluded. The U. S. make a valuation of \$150, all animals under that value paying a duty of \$30 per head. Over that value 25 p.c. is charged. At present the Canadian duty is 20 p.c. and the deputation did not ask any change in this regard, but asked for a valuation of \$100 for duty being put upon these animals, which are so undesirable as to be unsaleable elsewhere. The deputation had the promise that the matter would be carefully considered and in the mean time the undervaluation would be at once attended to.

### Supt. Creelman in Michigan.

Supt. G. C. Creelman attended the round up of the Michigan Farmers' Institutes a week ago. The M. A. C. Record, summarizes Mr. Creelman's address on "Canada, what she has done for the farmer by organization," as follows:

"Canada is strong in her farmer organizations. The live stock, dairy, and various other associations have helped to put the farmer on an independent basis." The speaker illustrated this in the following way: "Ontario has for its area a larger per cent. of pure bred stock than any other portion of North America. When hard times came several years ago, farmers to save themselves financially desired to ship their stock to the western provinces. This could not be done profitably because of the excessive freight rates. The live stock association was formed which, because of its strength, obtained through the Ottawa parliament the desired end. As a result of all the various organizations, bulletins are sent free into every village and community in the province."

### More Money for Agriculture.

In the supplementary estimates brought down last week in the Legislature there is \$16,350 for agriculture, including \$5,000 to enlarge the Winter Fair buildings at Guelph; \$3,000 for a Winter Fair in Eastern Ontario; \$4,000 for special dairy instruction, \$200 for the Ontario Sugar Beet Association, \$1,500 for the Agricultural College Library, and \$1,000 for sugar beet experiments. In addition there is an appropriation of \$7,500 for site for the new Macdonald building at the college and \$2,500 for a pavilion for live stock judging and \$1,400 for laboratory apparatus at the O. A. C., Guelph.

## The Late James I. Davidson

In writing to the Breeders' Gazette of February 26th last, the Hon. Mr. Dryden pays the following well-deserved tribute to the late James I. Davidson's services to the live stock industry of Canada and the United States:

"Born and brought up in early years among the hills of Scotland, it is not strange that when he decided to establish a herd of Short-horns his mind turned to the land of his birth for the foundation stock. He knew personally of the work of the late Amos Cruickshank and of its merits. Hence a relative was commissioned to make the first purchases and bring them across the sea. They were brought over about 1870, on a sailing vessel, and landed in splendid condition. From that time forward his herd steadily improved, until in later years he became at Mr. Cruickshank's request the sole medium for the sale of the surplus stock from Sittyton. America thus received the great benefit of an infusion of blood which saved our Shorthorns from a threatened destruction by following a mere pedigree craze while forgetting the useful qualities of the animal. Our gain, through the presence of these cattle and their descendants in America, is now felt by the breeders in Scotland to be a distinct loss for that country.

"In the earlier days of his breeding operations Mr. Davidson, influenced no doubt by the then prevailing sentiment, was impressed by the belief that a Bates cross on Cruickshank cows would be the wisest policy. The writer well remembers a trip made together to the great sale of Bates cattle at New York Mills, where the final decision was to be made. Together we looked over the offerings, but the individual excellence of most of the male animals was so disappointing and the prices so far beyond us that the matter was dropped. Later when the Cruickshank bull Royal Barmpton was imported and his stock began to develop, the best being Barmpton Hero (purchased from the writer by the Messrs. Watt), Mr. Davidson became, I think, too strong an advocate of keeping the Cruickshank cattle pure and entirely separate from the crosses of other families, so that henceforth bulls of other breeding found little favor with him.

"He was always a liberal feeder and was able to bring out the best in any of his animals. He had the canny ways of a well-bred Scotchman in dealing with his customers, and was always considered among those of us who knew him best to be a good salesman; but when a bargain was made his word was always as good as his bond. His judgment of a beast was always sound, and even in his later years, after his eyesight had partially failed, if his hands could be allowed to run over a few animals on which his

judgment was desired, he seldom failed to select the best.

"His name will always be connected with the history of Short-horns in America, and every member of his family and the wide circle of friends he leaves behind him may well be proud of that history. We have all too few of such men, for he was in the highest and best sense a good citizen, and the remembrance of his worthy life will still linger with us and will always continue as an inspiring influence."

### Drainage Across Railways.

About a year ago we discussed somewhat fully in these columns the question of drainage across railways and published some correspondence regarding the matter. The question has been a vexed one for sometime and farmers in many parts of the country have experienced many disadvantages in not being able to drain their lands properly owing to the railways refusing to allow drains to be put through or across their property.

Mr. M. K. Cowan, M.P., for Essex, has introduced into the House of Commons some important legislation dealing with this question and with the ultimate object of compelling the railway companies under reasonable safeguards to allow of drains being placed across their property, where the necessities of the case demands it. In speaking to the second reading of his bill last week, Mr. Cowan explained that its object was to adopt the legislation of the various provinces with respect to drainage across the lands of private owners and make it applicable also to drainage across the lands of a railway company. Provision is made for a conference between the engineers of the railway and the officials of the municipality to determine the point at which the railway should be crossed and other matters of detail. Objection was raised to the bill on the ground that the Dominion parliament had no power to pass such a bill, but the Minister of Justice stated that the measure was quite within the power of the Dominion parliament to enact and it was accordingly referred to the railway committee.

The bill is a most important one, affecting as it does the interests of many farmers very materially and it is to be hoped that it will pass through the committee unscathed and finally become embodied in the statutes of the country. Members of parliament, interested in the welfare of our farmers should give this measure their hearty support.

### Dairy Instructors to Meet at Ottawa

Arrangements are being made for an important meeting of dairy instructors and teachers to be held at Ottawa sometime in April. It is proposed to have at this meeting every instructor in dairying in Canada present, not only those in the

employ of the Dominion Dairy department, but those employed in the dairy school work and in instructing the makers in the provinces. If they all turn out it will mean a convention of from forty to fifty men who are devoting their energies especially to improving the quality of Canadian dairy products.

The importance of such a conference as this cannot be over-estimated. It should result in a distinctly forward movement in connection with the work of dairy instruction in Canada.

By rubbing up against each other and by a closer study of the methods of instruction followed in the different provinces some more uniform and definite plan might be evolved that will result in better and more lasting work being done in improving the quality of the dairy products in the different provinces of the Dominion.

Mr. J. A. Ruddick, Chief of the Dairy Division, is looking after the details of the gathering. Prof. Robertson is also interesting himself in the matter and an important conference of dairy workers may be looked forward to. Fuller particulars will be given later.

### Central Curing Stations

A well attended meeting of the dairymen in Oxford County was held at Woodstock on March 1st, to consider the proposal to operate a central curing station at that point. Woodstock has been selected as one of the four points where the Dominion Department of Agriculture will establish a model curing room operated on the most approved plan for the purpose of demonstrating the advantages of curing cheese at proper temperatures. The other stations will probably be located at Brockville, and at St. Hyacinthe and Cowansville, Que.

The meeting was addressed by Prof. Robertson, Agricultural and Dairy Commissioner; J. A. Ruddick, Chief of the Dairy Division, Ottawa, and the Hon. Thos. Balantyne, Stratford.

These curing rooms will be solely under the control of the Department of Agriculture, and cheese will be collected daily from a number of factories in the vicinity of each curing station. The Department will provide the boxes and the factorymen will be expected to pay for them. The cheese will remain the property of the patron, and will be sold in the usual way by the salesman. All four stations will be fitted up with plants for mechanical refrigeration.

We understand that the dairymen in the vicinity of Woodstock are enthusiastic regarding the proposal. The difficulty will be to limit the number of factories who desire to supply cheese. As the station will be largely of an experimental character and operated with a view to inducing factorymen to take up the Central Curing Station idea themselves, it will be only possible to accommodate a limited number of factories.

### A Big Milk Record.

The late Mr. E. D. Tillson gave the matter of milk production in connection with his dairy herd the closest attention. After years of the closest study he was able to show a record for milk production in his herd ahead of any similar record in Canada, and probably in the United States. During the past ten years he spared neither pains nor worry to raise the standard, first by careful selection of sires having ancestors with large milk records, then by renewing his herd with heifers from the best milkers in the herd and by careful feeding. The returns from his herd of 65 cows (six of them two-year-old heifers) for 1901 were as follows:

The average number of pounds of milk per cow was 9,353. Five of his best cows averaged 13,017 lbs. of milk in 11½ months, and his best cow produced 17,731 lbs. of milk in ten months.

This is a wonderful record and we can best comprehend what it means by making a comparison. At the Eastern Dairymen's Convention at Whitby in January Mr. Joseph Gould, Uxbridge, Ont., stated that six of his best cows in a herd of 30 produced quantities varying from 5,168 lbs. to 9,359 lbs. of milk in 12 months. The average yield per cow for the Dominion is about 3,000 lbs. per annum.

The Annandale stock farm herds are Holsteins and Holstein grades. According to the above they gave three times as much milk as the average cow for the Dominion. Such stock as this is worth having.

### Gold Medal for Live Stock Report

At the recent International Exposition at Chicago one of the most exciting contests was for the Grand Sweepstakes Gold Medal offered by the Zenner Disinfectant Company, Detroit, Michigan, to the student from any American Agricultural College preparing the best written report of the live stock exhibits. The contest was keen and the work of the students was passed upon by the most competent agricultural journalists in the country.

The results of the contest have just been made known, and D. A. Wallace, of the Iowa Agricultural College is the winner of this excellent prize. Earl Kincade and De Witt C. Wing, of Illinois, standing second and third, with H. O. Teller, also of the Iowa College, fourth.

### Pointers for Maple Sugar Makers.

The Vermont Agricultural Station gives the following points as being important to observe in making maple syrup or sugar:

1. Only a sharp bit should be used,—one that will make a clean-cut hole.

2. The hole need not be more than three inches deep. The investigations of the Vermont Experi-

ment Station have shown that hardly any sap comes from a greater depth.

3. The hole should be carefully cleaned of chips, because even a very small quantity of waste matter will clog the spout, obstruct the flow of sap, and seriously reduce the yield of sugar.

4. A spout should be chosen of such a pattern as will allow the freest flow of sap. It should interfere with the wood tissue of the tree as little as possible. The bark rather than the wood, should play an important part in holding the spout firm.

5. The spout should be strong enough, and its hold on the tree firm enough, so that it will safely support the sap bucket. Moreover the spout should be easy to insert and easy to remove. The various spouts sold differ materially in their merits when judged by the foregoing tests. The sugar maker will do well to examine them all carefully before buying his supply for the coming season.

The same care should be used in the selection and use of the other utensils used in the work, including the evaporator.

## Correspondence

### Farming in Quebec.

Editor THE FARMING WORLD

In reply to the letter of a "Reader in Scotland" in *The Farming World* of Feb. 11th, asking about Canadian farming, I would say that it is a profitable business when properly managed, and it stands a lot of mismanagement. A farm here consists of about two hundred acres, more or less, and costs about from two to three thousand dollars, which would include fairly good buildings. Of course prices vary with the situation. There are also lots of wild land which could be purchased for a trifle after they are lumbered, which process is rapidly going on now. These are solid blocks of woods and may be a little back of a good road, but one could clear them and sell the wood in cordwood at a fair price, but I would advise anyone to buy a cleared farm, which can generally be bought for very little more than it cost to build the buildings and it saves a lot of hard work.

The chief crops grown here are hay (principally clover and timothy), oats and barley, and may be roots or corn. There is very little wheat grown here now. A fair crop would be about two ton of hay, seventy bushels of oats, or fifty of barley to the acre. Roots and corn vary greatly. These crops are all fed to the cattle in the winter (which are principally grade Shorthorns) as none are grown for sale. In fact, most farmers buy considerable meat every winter, which is brought in from the West.

Beef raising is what is generally followed, although dairying seems to be the coming occupation, and for which the country is excellently adapted, as it has splendid pasture lands, which are covered with grass from the middle of May till on in October, the rain fall being abundant and the grasses grow very fast all summer. The surface of the land may be said to be rolling, some parts of which are stony and some with no stones. Then again some of the soil is sandy and some places heavy clay, others of light clay or muck. There is an abundance of natural water springs so that nearly every farmer has water running in both house and

barns. Every farm has one or more, and some half a dozen. Besides, we have brooks and rivers galore, so that it may be said that we are well watered, which cannot be said of all Canada. I do not ever remember of more than three weeks without rain. Generally we have a shower every week, so do not be afraid of drouth. A few hundred miles east or west would greatly vary these conditions, so that they apply but to this locality, which is south of the St. Lawrence, twenty miles from the city of Sherbrooke, C. E.

As to the chances of getting a good farm for a hundred pound as partial payment, it could be done, but you would have to give a mortgage for the balance, which, however, need not deter you if you are not afraid of work. I might say right here that everybody in Canada has to work for a living, as many young farmers start with less, but it is rather uphill work for a few years. Then one can always find work at about twenty dollars a month at the farms of others, and lumbermen are giving thirty dollars a month with board and lodging for axemen this winter and cannot get men enough at that. But twenty dollars a month with board, lodging and washing is about an average. Again many farmers want domestic help, which they cannot get (some travelling for weeks in search of it) at about two dollars a week. You need not be afraid of not getting work as there is plenty of it and to spare at present.

As to hiring tools to work the farm with, I think it would be more satisfactory to buy them outright as everybody would be using their own when you would want them. Sometimes a couple of farmers, by helping each other, get along with one set of tools, a convenient plan when there is only one man on the farm, but generally speaking, every farm has a more or less complete set, which, when well housed and cared for, last a long time. Our yearly routine is something like this: Cropping begins and generally ends in May, haying in June and July, harvest in August, and our first frost about the middle of September. In November snow is occasionally seen, and in



December snow comes to stay, and goes away in March and April. The winter months are as busy as any, as most farmers are at work lumbering, hauling wood or any heavy teaming that can wait till then. In fact some make more money in winter than in summer.

The snow varies in depth from none at all up to four feet deep, while the thermometer runs from ninety-five degrees above in the shade in summer down to twenty-five below zero in winter, but nobody minds that, as they take it as a matter of course, and one very seldom gets frostbitten. The inhabitants here are rather mixed, the majority probably being French-Canadians, the rest mostly English, Irish and Scotch, the latter forming some distinct settlements and speak their own language, but generally everybody speaks English. A Quebecer, Sawyerville, Que., Feb. 21st, 1902.

**Paying for Milk for Cheese Making.**

Editor THE FARMING WORLD

Sir:—Re the "Influence of fat on cheese yield," as exemplified by the copy of report of the Department of Agriculture for the United States, furnished by Mr. J. J. Macdonald, of P.E.I., in your issue of Feb. 4th.

The figures in that "report" are more than "suggestive" and whether the same exact results would be obtained from the natural milk, as from milk artificially enriched, or artificially impoverished as in that case, the conclusion is the same. That patrons who send good average milk, or milk rich in butter fat, to the cheese factory, are being robbed for the benefit of those who send poor milk or milk under the average, if they are paid simply for the number of lbs. they furnish, without regard to the quality.

Our desire, however, is to find the fairest means of paying patrons for the milk they furnish and at the same time encourage the production of milk rich in butter-fat.

If cheese, when sold, were tested by the Babcock tester, and sold and paid for in proportion to the butter-fat it contained, it would then be right to pay patrons simply for the butter-fat furnished, and in that case that Chicagoan should have paid 11c per lb. for "No. 4" cheese instead of 10c as per U. S. "report."

But under present methods, and since the amount of cheese made from samples of milk of different degrees of richness is not in proportion to the butter-fat contained in the samples. We believe that to pay patrons for butter fat only is neither fair nor commercially honest.

Since writing you last, I have been favored with a bulletin on the subject from our own Agricultural College at Guelph, which I think furnishes the fairest answer to the question so far, and I know you will confer a favor on your many readers if you will kindly give it space in *The Farming World*:

"Cheese is made largely from two constituents in the milk, viz., fat and casein; therefore, the method of dividing proceeds among the patrons of cheese factories is more complicated than for creameries. Three systems are now in use among factorymen:

1. Paying according to the weight of milk delivered regardless of its quality.

The principle of this plan is that all milk is of equal value per 100 pounds for cheese-making. It rests on a false assumption, is unjust, and it tends to promote dishonesty. Factorymen and honest patrons who complain that some of the milk is skimmed and watered by dishonest patrons, deserve little sympathy, because a remedy is within the reach of all at a very small cost. The milk of all patrons should be tested regularly, and be paid for according to its value for cheesemaking.

2. Paying according to the weight of fat delivered in the milk, the same as at creameries.

The principle of this system is that all milk is valuable for cheesemaking in proportion to the fat which it contains. The system is manifestly more just and equitable than the first named, and is to be commended in preference to "pooling" by weight of milk. The chief weakness of the plan is that the yield of cheese is not in direct proportion to the fat contained in the milk; therefore, it gives an undue advantage to the patrons sending milk containing a high percentage of fat.

3. Paying according to the fat and casein in the milk, the casein being represented by the factor 2, added to the percentage of fat.

The principle of this system is that milk is valuable for cheesemaking in proportion to the fat and casein contained in it, and it further assumes that the percentage of fat plus 2 represents the

available fat and curdy compounds in milk for cheese-making.

The application of the third system is very simple. To illustrate: The tests for fat of patrons' milk are 3.0, 3.5, 3.8 and 4.0. The percentage of fat and casein are 3 plus 2 equals 5.0; 3.5 plus 2 equals 5.5; 3.8 plus 2 equal 5.8; and 4 plus 2 equals 6.0. The pounds of fat and casein are calculated by multiplying the pounds of milk delivered by the percentage of fat and casein. Thus, if the first patron had 1,500 lbs. milk, he would be credited with 1500 x 5 divide by 100 equals 75 pounds of fat and casein. If the second delivered 2000 pounds milk he would be credited with 2000 x 5.5 divide by 100, or 110 lbs. fat and casein, and so on with all the others. The value of one pound of fat and casein is ascertained by dividing the net proceeds of the sale of cheese by the total pounds of fat and casein delivered.

The table No. 1 gives a summary of the results obtained during five years experiments, in which 250 experiments were made with nearly 200,000 lbs. of milk, which contained percentages of fat varying from 2.7 to 5.5.

Amounts of money (cheese 8c per lb.) credited by three systems and also value of cheese is given in table No. 1.

"Our five years' experiments prove that this third system comes nearest to the actual value of the cheese produced, though it still places a slight premium on the milk-fat. It encourages the production of good milk, and at the same time does not discourage the majority of patrons who have average milk, and who are apt to envy those whose cows give a small amount of rich milk, and who draw a large share of the proceeds of cheese-sales, when the money is divided on the basis of the fat only."

A. E. Kennedy, Little Lake Farm, Selwyn P. O.,

**TABLE No. 1.**

Av. p.c. fat in milk.	Lbs. cheese made per 100 lbs. milk.	Lbs. cheese made per (lb. fat in milk.	Lbs. cheese made per lb. fat and casein or p.c. fat x 2.	Lbs. loss of fat and casein in whey.		Per cent lost in curing in four weeks.	Average score.	
				Per 1,000 lbs. milk.	Per 100 lbs. cured cheese.		Flavor max. 35	Total max. 100.
2.87	8.75	3.04	1.79	2.71	3.09	4.26	30.4	89.9
3.22	9.03	2.80	1.72	2.75	3.15	4.43	30.2	89.4
3.83	10.02	2.61	1.71	3.34	3.21	4.10	30.8	90.3
4.23	10.67	2.53	1.71	3.21	3.02	4.05	31.0	90.4
4.74	11.44	2.41	1.69	3.64*	3.18*	3.07	31.0	89.8
5.21	12.13	2.32	1.68	3.40*	2.80*	3.53	31.5	91.6

\* Fat only. Casein not determined.

**TABLE No. 2.**

Average p.c. fat in milk.	Weight of milk—1000 lbs. milk.	Weight fat in 1000 lbs. milk.	Weight of fat and casein in 1000 lbs. milk, or fat plus 2.	Value cheese made from 1000 lbs. milk.
2.87	\$ c.	\$ c.	\$ c.	\$ c.
3.22	8 27	5 91	6 69	7 00
3.83	8 27	6 63	7 18	7 22
4.23	8 27	7 89	8 02	8 02
4.74	8 27	8 71	8 56	8 54
5.21	8 27	9 76	9 27	9 15
		10 73	9 91	9 70

# The Sugar Beet World

Devoted to Sugar Beet Culture in Canada and Allied Industries. Specially Representing the Farmers' Interests

Edited by JAMES FOWLER

## Sugar Beetlets.

The average length of day from sunrise to sunset has a direct relation to the content of sugar in the beet.

The shorter the day the lower the content of sugar, and the longer the day the higher the content of sugar.

Much of the valuable portion of the elements contained in the sugar beet which the soil requires for recuperation is in the top and leaves.

It is a wise provision to allow the tops and leaves to remain on the ground rather than feed them.

Much of the expense of raising sugar beets in foreign countries is the costly fertilizers. In this country good beets are grown from the natural fertility of the soil.

Around most of the factories large feeding centres are being established.

A large amount of fertilizer accumulates around a factory and farmers can put in their time profitably in hauling it home and spreading it on their land. As a rule it is given away to the customers of the factory.

## Wiarton

Work will be resumed on the sugar factory at this place as soon as weather permits. Nearly all the stone required has been quarried and ready for delivery. The main building will be of stone and steel construction and the drawings show a very handsome and substantial structure. The Colonial Construction Co., of Detroit, Mich., are the contractors. Mr. J.C. Dumont the engineer in charge.

## Galt

Negotiations for the sugar factory are still going on. Some unexpected hitches have occurred, that may throw the project over until 1903, but the factory will be built, of that you may be assured is what the parties interested say. Ordinarily it takes two years to get a sugar factory under way, and the people of Galt are to be congratulated in getting along so far as they have in the short space of time they have been at it. The delay has not been caused by the local people.

## Baden

The sugar factory has been "laid by" for this year, but the work of interesting the farmers will be continued during the spring and sum-

mer, so that the full acreage can be contracted for and the land prepared in the fall for the season of 1903. The cause of the delay is attributed to the lack of sufficient acreage to warrant the building of the factory this year, and the condition of the beet sugar market in the U. S. and Germany has made the capitalists rather timid of investing their money.

## Dunnville

The people of this enterprising town have not gone to sleep on the sugar question. An advertisement appearing in every sugar beet journal in the United States is directing the attention of people all over that country to this locality, and numerous enquiries are being made as to its advantages and inducements. Several parties have signified their intention of taking up the proposition during this season and Dunnville will have a sugar factory for next year.

## Cargill

The Cargill Sugar Co., of Cargill, report that they have given up the idea of a factory this year. The late date at which the project was taken up prevented the necessary work being done in time to get a factory built and it has been thought best to put the matter over, take plenty of time and do the thing right. The large amount of capital invested in a plant of this nature will not warrant any one in taking chances in the success of a factory not properly constructed, if a company should be delayed in starting when the beets were ready, the loss would be enormous.

## Walkerton

Like other places, Walkerton has been obliged to defer their factory another year. There is nothing gained by overhaste and delay only assures the success when the factory is started. This season will see some factories in operation and will be a guide and object lesson to us.

## Berlin

The contract for the erection of a 600 ton beet sugar factory for the Ontario Sugar Co., has been awarded to Messrs. E. H. Dyer & Co., of Cleveland, Ohio. The factory will be a model one in every respect, Messrs. Dyer & Co., staking their reputation as builders upon this plant. The contract calls for completion Oct. 1st, and work will commence at once.

The first thing to be done is to

build the railway sidings. As soon as they are completed the material will begin to arrive and the work will be well under way by May 1st.

Prof. Shuttleworth the company's agriculturist, has been instructed to increase his acreage contracts to 6,000 acres, so as to have a full campaign. Something over 5,000 acres are now under contract. Berlin is the only projected factory in this country that has a full supply of beets contracted for at the present time.

## Dresden

Work on the factory at this point is proceeding rapidly. A large quantity of the machinery is contracted for delivery this month, and the first day of April will see all the foreign machinery on the ground. Some portions of the plant are being manufactured in this country. The Booth Copper Co., of Toronto, are supplying the vacuum pans and some other work to the extent of \$12,000.

## Michigan

The total daily capacity of the 13 Michigan factories is 6,600 tons of beets, the total investment is \$7,700,000. 64,400 acres of beets were harvested and the crop weighed 597,600 tons. The value of the average ton was \$5.20, making the amount paid to farmers \$3,197,520. The average cost of a ton of beets to the farmer is \$3.70, and making all proper reductions, including land rental, the net profit to the farmer per acre is \$6.30. Freight must be deducted from this profit.

The average output of sugar per ton of beets at the Michigan factories is 210 pounds, which for the present season amounts to 125,496,000 pounds, or 62,748 tons, or 4,183 carloads of 15 tons each. This amount would make a solid train-load of sugar 31.6 miles long.

This amount is 75 per cent. of Michigan's yearly consumption of sugar. Its value at 4½ cents per pound is \$5,647,320.

The consumption of sugar in the United States in 1900 was 2,486,228 tons and the average annual increase in consumption for 19 years has been 6.34 per cent. At this rate the consumption in 1910 will be something over 4,000,000 tons. The cane area is able to produce about 1,000,000 tons, which will leave 3,000,000 for beet sugar producers, which can be produced in this country, and, judging from the growth of the beet sugar industry, it is thought will produce here within the next ten years. The authors of the pamphlet then say:

To produce 3,000,000 tons beet sugar annually would require 600

plants, each having a daily capacity of 500 tons of beets. These plants would represent the following investment and annual business:

- \$300,000,000, investment in plants.
- \$50,000,000, working capital.
- 3,000,000 acres of beets.
- \$150,000,000, valuation of land growing the crop.
- 27,000,000 tons of beets.
- 3,000,000 tons of sugar.
- \$135,000,000, value of beets.
- \$42,000,000 annual pay roll for labor in factories.
- 5,500,000, tons coal used annually.

- 1,890,000, tons limerock used annually.
- 208,000 tons coke used annually.
- \$27,000,000, freight paid railroads annually.
- \$6,000,000 annual payment for bags and barrels.
- 750,000, farmers' families raising beets.
- 125,000, men employed in factories.
- 1,200,000 men employed raising beets during season.

**Germany.**

While we have resigned ourselves to the grim necessity of raising fewer sugar beets next season, and curtailing the amount of beet sugar produced by Germany, still are we all the more anxious to secure as much as possible from those beets which we will raise. In order to do this, our capital prizes for practical beet lifters and toppers is going to be continued another year by the German beet sugar industry. At their recent meeting in this city, the association also decided to offer another prize of 10,000 marks, equalling \$2,500, for the most practical machine to dry beet topplings and beet leaves for cattle feed. There is some great objection to all the present methods of doing this work, the principal one being the large cost of machines and labor. Cattle feed to be useful, must be cheaper or at least as cheap, as our present feed, from other field staples. General impracticability is the main obstacle to adopting for general use, the methods of drying leaves at present in vogue. The question hinges to a large extent on the same technical difficulties, as that of securing a practical beet topper and lifter. The mere fact of offering so large a prize in cash demonstrates how urgent the need of such a drying process is being felt, and also demonstrates the continued faith of our beet growers and manufacturers in our sugar beet crop, despite the unfortunate conditions of our beet sugar market at this time. At this very session of the beet growers and manufacturers association, the leading spirits in Germany's beet sugar industry of to-day spoke most encouragingly of the future of our favorite farm and factory industry. They predicted in glowing terms that the settling conditions of far off Asia, particularly of China, would mean a new and

OTTO WEINSHAUSEN, Pres., Treas. & Mgr.

Authorized Capital \$250,000.

**American Copper, Brass and Iron Works**

MANUFACTURERS OF COMPLETE EQUIPMENTS FOR

**Brewers, Distillers, Beet Sugar Factories, Refineries, Glucose Works, Etc.**

WILL CONTRACT FOR COMPLETE PLANTS IN ANY PART OF THE WORLD

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large field for Germany's surplus sugar. For a season or two Germany would have to curtail their beet crop, in order to stem the total demoralization of sugar prices and of the beet sugar industry. But the efforts being made by our beet sugar manufacturers to find new markets for their surplus stock were bound to be crowned with success ere long, and then Germany would again grow all the beets the empire was capable of producing with present factory conveniences. In time they even predicted there would be many more beet sugar factories in Germany than there are at present, and when the meeting adjourned there was a brighter feeling current in beet sugar circles.—Ressnag.

**Money in It**

In Bay City, Mich., up to January 1, 1902, the farmers delivered beets for which they received nearly \$1,000,000, the exact amount being \$852,363. The pay roll for the campaign is expected to exceed \$1,000,000. This vast amount exceeds by nearly \$250,000 the amount paid last year for the same month's deliveries. The campaign is not yet ended and beets are still being delivered, the pay day for this month's deliveries not coming until February, however. The factories expect to run longer this year than last, as more acreage was contracted for and the output up to date has been larger.

For the first four months of the campaign the pay rolls have been as follows:

BEETS DELIVERED PRIOR TO OCT. 1ST.  
Bay City Sugar Co.....\$ 12,000

Michigan Sugar Co..... 20,000  
West Bay City Sugar Co. 27,000

Total.....\$ 59,000

BEETS DELIVERED DURING OCTOBER

Bay City Sugar Co.....\$118,460  
Michigan Sugar Co..... 79,767  
West Bay City Sugar Co. 122,500  
German-American S. Co., 18,000

Total.....\$338,727

BEETS DELIVERED DURING NOVEMBER

Bay City Sugar Co.....\$122,677  
Michigan Sugar Co..... 79,131  
West Bay City Sugar Co. 56,968

Total.....\$249,776

BEETS DELIVERED DURING DECEMBER

Bay City Sugar Co.....\$ 94,000  
Michigan Sugar Co..... 59,860  
West Bay City Sugar Co. 51,000

Total.....\$204,860  
Grand total to Jan. 1, '02. \$852,373

**Sugar for Horses.**

In that excellent medical publication, The Sanitarian, we find that good results have been obtained by military surgeons from the use of large doses of sugar in relieving the great fatigue of army horses on forced marches, many of them in miserable condition having recovered their normal strength by the regular use of sugar mixed with their food.—Dumb Animals.

On the average farm it should not cost over fifty cents a year to keep a flock of hens.

**The Kilby Manufacturing Co.**

FOUNDERS AND MACHINISTS

Corner Lake and  
Kirland Streets,

**Cleveland, Ohio**

New York Office:  
220 Broadway.

**Builders of Complete Machinery for Beet, Cane and  
Glucose Sugar Houses and Refineries.**

# The Agricultural Gazette

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

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

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

### BENEFITS OF MEMBERSHIP.

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

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

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

The name and address of each member, and the stock he has for sale are published once a month. Over 10,000 copies of this directory are mailed monthly. Copies are sent to each Agricultural College and each Experiment Station in Canada and the United States, also to prominent breeders and probable buyers resident in Canada, the United States and elsewhere.

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

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

A. P. WESTERVELT, Secy. ary.  
Parliament Buildings, Toronto, Ont.

### FARM HELP EXCHANGE.

The Farm Help Exchange has been started with the object of bringing together employers of farm and domestic labor and the employees. 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 Associations. In the case of persons wishing to employ help, the following should be given: particulars as to the kind of work to be done, probable length of engagement, wages, etc. In the case of persons wishing 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 names when received together with particulars 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 suitable workers, male or female, may be obtained. Every unemployed person wishing to engage in farm or dairy work is invited to take advantage of this opportunity.

### Help Wanted.

Wanted a married man for a position as herdsman. House and lot furnished, stable conveniently situated. Good wages and permanent job to a good man. No. 915. a.

Wanted a good man capable of taking full charge of farm, must be a good teamster and milker. Good wages to suitable man. No. 916 a.

Wanted a good reliable young man on a well regulated farm in Manitoba. Must understand general farm work and be sober, active and good tempered. If satisfactory will give management of farm. Will hire for 8 months. No. 917. a.

Wanted a single man to work on a 280 acre farm. Must understand the care of stock and be a good milker. Wages \$200 a year and board. No. 918. a.

Wanted a young man to work in a cheese factory. Must be active and good moral character, using neither liquor or tobacco. One having some experience on a farm preferred. Apply Box 76, Ripley.

Wanted a young man or middle aged man and wife, to take charge of stock. Must be willing and com-

petent. Wages \$28.00 a month and board. Permanent employment if satisfactory. No. 920. a.

Wanted an experienced farmer and wife, without children, to take charge of a small farm (60 acres) on or before the 1st of April. Man to take charge of the stock and cultivate a portion of the farm. Wages \$25 per month, with house, fuel, etc., provided. Wife to do general house work and cooking for family also milk three or four cows. Wages \$10 a month. No. 921. a.

Wanted a good strong boy or young man to do general farm work. Must be able to milk and drive a team. First class situation for one that is trustworthy. Will engage by the year. State wages expected. No. 922.

Wanted at once a good single farm hand for 8, 10 or 12 months. Must be handy with a team and good ploughman. Three men kept on the farm. Apply stating wages and length of term. No. 923. a.

Wanted, single man to assist in care of stock and dairy cattle and milk. A steady place for reliable man. Reference required. State wages by the year. Also a single man for general farm work and teaming and assist some with milking. State wages. Board included in each case. No. 925. a.

Wanted.—A good man to work on a farm near Brantford for about nine months of the year, say from March 15th to December 15th. Must be steady, trustworthy and used to general farm work. No. 927. b.

Wanted.—A young man to work on a farm ten miles from Toronto, with experience in farm work and kind to stock. Wages \$180 a year and board. No. 928. b.

Wanted, an unmarried man to take charge of 50 sheep in the back country; must have experience and be sober and industrious. Wages \$18.00 a month. A comfortable little shanty with bedding,

cooking utensils, stove and furniture provided. No. 909. b.

Wanted.—A man to work on a farm near London, who is experienced in general farm work. Must be sober, reliable and a good worker, and have good references. Will engage for eight months with the opportunity of engaging by the year afterwards. Highest wages to good man. No. 910. b.

Wanted.—By April first, two reliable men accustomed to dairying and market gardening, must be strictly sober and reliable. If married, a comfortable house, wood and other privileges. Liberal wages. No. 911. b.

Wanted.—A strong boy for general farm work, must be able to plough and milk. Liberal wages by month or year. No. 912. b.

### Domestic Help Wanted.

Wanted competent woman for farm near Brandon, Man. Comfortable house and permanent situation for suitable person. Wages \$12 a month. No. 924. a.

Wanted.—A good girl for farm house near Georgetown. No outside work and four of family. Good wages. No. 913. b.

Wanted.—On a farm, a good strong woman to assist with house work where a chore boy is kept, four cows, and a separator used. No. 914. b.

### Situations Wanted.

Wanted a position on an Ontario farm, by a young Englishman, 19 years of age, total abstainer. Has had some experience in farming in England and also a short time in Quebec. No. 980. a.

Wanted a position on a farm which would be let out on shares, by a competent man who thoroughly understands farm work. No. 981. a.

Wanted.—A position by a man 50 years of age, taking care of stock; who has had a great deal of experience in feeding and caring for prize stock; or a position with a private family, where a few horses and cows are kept, and would take charge of the garden, lawn, etc. No. 978. b.

Wanted.—A position on a dairy farm or creamery as butter maker, by a young man who has had a great deal of experience and is competent of taking full charge of a dairy farm, having taken the full course at the Dairy School. No. 979. b.

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 his head the Superintendent of Farmers' Institutes will each week publish matter relating to Institute work. This will include instruction to secretaries and other officers, general information about Institutes and Institute work, suggestions to delegates, etc. He will also from time to time review some of the published results of experiments conducted at the various Agricultural Colleges and Experiment Stations of Canada and the United States. 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 further information along any of the lines discussed, by applying to the Superintendent he will be put in direct communication with the Institution that has carried on the work.

G. C. CREELMAN,  
Superintendent Farmers' Institutes

## Farmers' Institute Notes.

BY SUPT. G. C. CREELMAN.

### EAST HASTINGS.

"Pronounced by old Institute goes to be the best meetings ever held in Hastings." This is the report sent in by the secretary in speaking of the meeting held at Bogart on January 16th. Mr. Andrew Elliott, Mr. F. M. Lewis and Mrs. Elizabeth Torrance were the delegates, and the officers are most extravagant in their praises of the good work accomplished. The dairy cow and the bacon hog came up for discussion at almost every meeting.

### AMHERST ISLAND

The same deputation visited this district and the secretary writes:—"We had splendid meetings. The interest in Institute work is growing rapidly, thanks to the excellent deputations which you have sent us from time to time."

While this is a small Institute comprising only one township, yet large meetings are held twice a year, at Stella and Emerald, and a larger per cent. of the farmers in this township attend the meetings than in any other place in the province.

The report goes on to say that the lectures of Mrs. Torrance revealed many facts which were new and of interest to the ladies and gentlemen alike. In this eastern country where it was predicted that Women's Institutes would not succeed, we have this winter held some of our very best ladies' gatherings. The women of the farm are realizing as they never did before the necessity of meeting together and discussing their difficulties and by exchange of practical ideas they are taking renewed interest in what, in many instances, has been a monotonous existence.

### MUSKOKA

Up in this district where the farmers are used more or less to hardship they think nothing of driving ten or fifteen miles to a meeting. They also appreciate very much the instruction received from our delegates and frequently correspond with them long after they return to their homes. One man in writing of the meeting at Bracebridge, says, "it would have been a great saving of money to me if I had known earlier some of the things stated about fruit trees by Mr. F. A. Sheppard, and it is not yet too late to put in practice many of the things I learned to-day."

### WEST MIDDLESEX.

The secretary writes:—"We had good meetings, good crowds, good discussions and enthusiastic audiences. Interest has revived all through the district and places us in a much better position than we ever were before. Our directors are working well, and if our supplementary meetings do not prove a success it will not be the fault of those in charge. Of course we still have a good deal of apathy to overcome and even prejudice. There are still some of our farmers who are conceited enough to think they know it all and do not propose to attend meetings and have other fellows come and tell them how things should be done. We are gradually breaking down this prejudice, however, and we feel pleased with ourselves and the progress we are making."

### PRINCE EDWARD COUNTY.

We have never felt that this county made the most of its opportunities in Institute matters. There are, however, some of the finest farms and finest farmers in Ontario in this district, and yet it is hard work to get them to take an active interest in the work. Probably no stock county buys so much stock feed from outside, and probably no county with the same dairy facilities has so few silos. We are pleased to know that this year the efforts of the officers have been rewarded to a greater extent than ever before. The secretary writes: "You will see by reports that our meetings were fairly attended and I am safe in saying that they were the most profitable series we have ever held. The membership already enrolled is ahead of the total for last year."

## Septic Tanks for the Disposal of Sewage.

In answer to several questions asked by Mr. Wm. McLaughlin, of Victoria, B. C., respecting an article appearing in the issue of Dec. 10th last, I beg to say, (1) that pipe "D" with its branches should be perfectly level, as stated, for the reason that if one portion of the system is lower than the rest it will naturally remain full, or partially full of water longer than the rest, and consequently the earth surrounding such low portion will have to perform more than its share of work.

(2) The apparatus is not liable to choke for the reason that any portion of the sewage not rendered soluble is prevented by the plank partition and the shape of overflow "F" from passing into chamber No. 2.

(3) The tank is usually covered with planks upon which a few inches of earth is thrown. It is a good idea to leave all the planks loose that they may all be removed if necessary.

(4 and 5) The statement that the "fresh air" passes up soil pipe to roof" is correct, pipe "E" is carried from tank, through outer wall of house, to basement, and thence

to and through the roof, the fixtures, such as closet, sink, bath, etc., being tapped into it, this construction ensures a good draft, as the warm gases from the tank are made warmer by the heat of the house, while they would be chilled if the ventilator was in the outer air as suggested, and the circulation of air in the tank would be very sluggish in consequence.

6. Respecting the difficulty experienced with "waste from sink, bath, etc.," it is hard to express an opinion without an intimate knowledge of the circumstances, the trouble may be due to the stoppage of a free circulation of fresh air by a trap or other obstruction, or the drain may be far too large, and in consequence is never properly flushed, then again the sewage may be all deposited in one spot instead of being distributed over a considerable area, or disinfectants may be used which will prevent the growth of Bacteria. A total absence of chemicals or other elements which would destroy the life of bacteria, and a plentiful supply of fresh air being essential to the success of this method of disposing of sewage.

7. In answer to the question "Why would not a continuous flow from chamber 2 suit rendering a flush valve unnecessary?" I may say that in a continuous flow, the stream during most of the time would be extremely small and hence would soak through the tiles nearest the tank, giving the earth surrounding them all the work to do, the tiles farthest away receiving none of the sewage at all. Whereas with the valve mentioned in the original article (Dec. 10th), no liquid is allowed to escape until a sufficient quantity is obtained in the tank to fill all parts of the tile system, when it is discharged suddenly, ensuring the proper distribution of the sewage over an area of soil large enough to properly purify it.

M. J. Quinn.

## A Dairy Institute.

In the issue of February 11th appears the report of a Dairy Institute at Strathroy. The following is a part of the discussion that took place:

In answer to the question, "how much green feed is it necessary to plant?" Mr. Drummond said, "Allow half a square rod per cow per day of peas and oats, when they are not getting grass. This would give you 320 feeds per acre or enough to last 32 cows for ten days, and" concluded the speaker, "I do not know any pasture field that will do that even when at its best." Mr. Drummond went on to say that peas and oats when fed in this manner made an almost balanced ration, but some prefer to add a little clover hay, and others a little bran. "Green feed," said Mr. Drummond, "should be fed in the stable, every cow in its own place. We have seen the evils resulting from feeding in the lot. The timid cows are driven off and do not get their share and a lot of the food is trampled under foot. Much

better results are gotten every time by feeding inside. In feeding green corn it pays to run it through the cutting box. The cows then eat all of it and it is in better shape for mixing with the grain ration."

"Why is it that soiling has not kept pace with ensilage?" some one asked. "Because" said Mr. Drummond, "implement manufacturers in advertising their wares advertise the advantages of ensilage and more farmers have on that account taken it up."

"Would you advise feeding ensilage in summer?" some one asked. "Certainly," said Mr. Drummond. "It is a good food at any time, but it must be remembered that it is not a complete food and some concentrated grain or other food must be mixed with it to balance up the ration."

"Is the labor not very great in soiling?" was the next question. "One man can attend to 30 cows," said Mr. Drummond, "He cuts the feed, hauls it in, and on returning to the field takes a load of manure with him."

"Have you ever fed gluten meal?" asked some one. "Yes," said Mr. Drummond, "it is a by-product of corn starch, and I find it worth about 25 p.c. more than bran. It has the advantage over other chopped food in that being kiln-dried it keeps flavor and does not get musty in summer. We feed it dry in summer time."

"Would you advocate soiling for young stock?" was next asked. "If I had not any rough land on which to turn them. On the other hand, if all was arable land and all being worked it would certainly pay to feed the young dairy stock in the same manner as I have described for the cows."

"What about cotton seed meal?" was asked. "It is all right," said Mr. Drummond, "and our dairymen in Canada are feeding more of it than they ever did before. It must not be fed in large quantities however, not more than 2 lbs. per day per cow. Some complain that it makes the butter a bit tallowy in winter, but where less than two pounds are fed I have never heard any complaints from the consumers."

"Do you advocate the growing of clover?" "I certainly do. I grow it only one year. I sow ten pounds per acre, with a mixture of wheat, barley and oats, equal parts by weight, making in all two bushels. We use generally the large pea-vine clover. It is later than the red and matures about the same time as Timothy, and for this reason makes better hay when planted with this grass."

"Will pea-vine clover grow on clay land?" "Yes, if the clay is not too close a texture. It will grow wherever red clover grows."

#### Requirements of the Beef Market.

At the annual meeting of the Farmers' and Dairymen's Association of New Brunswick, held at Fredericton, N. B., on Jan. 30th,

#### A FEW PROOFS OF THE EXCELLENCE OF

# BIBBY'S CREAM EQUIVALENT

## FOR CALF REARING

It has the largest sale of any article of its kind.

Its sale is steadily increasing.

It is superseding other articles which had previously been used for the same purpose.

Price. 50-lb. bag, \$2.00; 100-lb. bag, \$3.50, freight prepaid to nearest railroad station. To be obtained from local dealers or direct from

### J. BIBBY & SONS

10 BAY STREET, TORONTO

1902, Prof. Grisdale, Agriculturist, Dominion Experimental Farms, addressed the meeting at length on this very important subject. His remarks may be summarized as follows:—

The demand for good beef is increasing. The demand will continue to increase, and not merely at the same rate as in the past, but at a rapidly increasing rate. The reasons are obvious. The old country is bound to continue importing in increasing quantities. The United States, whence is shipped a very large part of the beef imported by the British Isles, is approaching the limit of production under present feeding conditions. The United States' home consumption is increasing much more rapidly than the supply. The exports must naturally decrease, and we are the natural heirs to their trade.

We must prepare for it. How? First, by learning what is wanted in quality, size, and finish. Second, by learning how to feed economically. In quality, the British market demands an animal strong in loin, broad in the back right up to the shoulder, and well filled in the ham, with a medium length of quarter. The rib must be well covered with meat, and the whole carcass as free from unevenness and irregularities as possible. The bone must be fine, and the belly light. Coarseness, paunchiness, legginess and, generally speaking, any roughness are very objectionable. These characteristics in a steer indicate that the weight of meat from the animal will bear a rather low proportion to its live weight. In addition, any coarseness or roughness means a class of beef not relished by the consumer, as it contains too much bone and gristle. In brief, the market demands the very highest proportion of good eatable meat on the very best cuts—the loin, the rib, the sirloin, and the quarter.

The only way to get such quality is by breeding from good beef stock. The product of the dairy bull or

dairy cow can never be of much value for the export or any other beef trade. The product of a Shorthorn, Aberdeen Angus, Hereford, or Galloway bull on common or even well graded dairy cows is sure to develop, under fair conditions, into good beef, and may be expected, in many cases, to grow into most excellent beef. The use of such a sire as mentioned above on half-bred cows of any of the beef breeds guarantees a good frame for beef and, generally speaking, an aptitude for the laying on the right sort of meat in the right places. The size of animal required for the best trade is from 12 to 15 hundred pounds. A nice weight is 1350 pounds. Such a weight suits the very best home market and the top British market. Steers may weigh this at 2 years old; they should weigh it at 3 years old without fail. Too many never reach such proportions till 4 years old, and in some sections never get near such weights. The cost of transportation will always keep the size up to the above mentioned proportions, because the freight is charged so much per animal, not per ton. The finish or condition of the beef sent is a most important consideration. Owing to much of our exported beef in the past having been unripe or unfinished; that is, not sufficiently fattened, we have won for ourselves the honour of naming a certain class of beef. Any shipment or part thereof that does not come up to the standard for quality and finish is called "Canadian" whether it hails from our shores or not. Such beef sells from 1c to 3c per pound less than is paid for good American beef. Thus we labour under a disadvantage from the very beginning. The last month is what puts the finish on our animals and raises their value per pound. If we are to take a higher stand in the British markets we must send a better article, and so overcome the bad name we have won. That we are gradually doing so I am most happy to say.

## The Farm Home

### The Winter Camp.

The walls of log are thick and stout;  
The rugged hearth is wide and gray;  
The roof will keep the thin winds out—  
The fire will chase the frosts away:  
While we take comfort merrilee,  
And spin brave yarns above the tea.

Lacobie tells of caribou  
And long, gray wolves in Labrador;  
And Stanley sings the red canoe;  
And Dick expounds his Micmac lore;  
While I talk glibly as I can  
With one eye on the frying pan.

We talk of deeds in field and wood,  
Of fir-clad hills and miles of spruce—  
The alder swamp's gray solitude—  
The trampled shelter of the moose:  
And when the bacon is fried brown  
We let the conversation down.

Our snowshoes stand against the wall—  
They need good rest, for they have gone  
Down forest trails, where shy beasts call—  
A giant journey since the dawn.  
I wonder if they ever tire  
And want to lounge about the fire?

What matters it tho' winds blow chill  
And heap the drifts about our door,  
When we have fire-light, and good will,  
And bear skins strewn upon the floor,  
And bacon and a pot of tea  
Do make the time go merrilee?  
—Theodore Roberts in Outing.

### Cooking Lessons at the O. A. C. Dairy School.

#### NO. VIII.

Before demonstrating, Mrs. Joy gave a brief, useful talk on Diet—food in relation to age, condition, climate, etc. Age or life may be divided into three periods—in-  
fancy, maturity, decline. Infancy may be subdivided into babyhood, childhood and adolescence. Many infants are artificially fed and ignorance in so doing causes much sickness and many deaths. Many babies without the sign of a tooth are fed potatoes, cornstarch pudding, etc. Until the teeth come there is no saliva in the mouth, and without saliva the starch cells cannot be acted upon and trouble in the stomach follows. In France feeding infants starchy foods and using long tubed nursing bottles is prohibited by law.

Cow's milk needs to be modified for feeding to young babies. It differs from mother's milk in that it forms into larger clots, is not so sweet nor does not contain so much fat.

Modified milk may be prepared as follows: Take 2-3 pint of evening's milk, set and next morning skim and add the cream to 1-3 pint of new milk. Add a few drops of rennet to 2-3 pint of new milk and after it has coagulated for a little while, drain off the whey. Scald the whey and add it to the cream and new milk. Sweeten with two teaspoonfuls of milk sugar. This makes one pint.

Most babies are overfed. A baby's stomach is about the size of a hen's egg and holds less than two ounces. Consequently babies should be fed small quantities often. Milk is not a beverage. It is a food, and when it reaches the stomach becomes solid. A child should be given a great deal of water. Meat should be fed sparingly. Proteid should be supplied by the use of milk and eggs rather than meats. The adolescence period requires more food than any time in life. What enormous appetites college boys have. Food has to be taken to supply the energy expended on football and hockey, and to build the bone and muscle of their fast developing bodies. At this period they should have a full diet of plain, easily digested food and no condiments should be necessary to create an appetite.

When the age of maturity is reached then the individual taste, digestive powers, occupation, etc., have to be taken into consideration.

The average waste thrown off daily by the body is 300 grains nitrogen and 4,500 grains carbon. To supply this waste it is necessary to take 23 ounces of water-free food a day. Our food contains from 50 to 60 per cent. water. This 23 ounces of dry material we may proportion as follows: 5 oz. proteid, 3 oz. fat, 1 oz. salts, and 14 or 15 oz. carbohydrates, giving a ratio of one to four or four and a half. This means one ounce of muscle forming material to four ounces of heat and fat forming material.

Decline or old age resembles childhood. It is serious for old people to eat too much. In childhood the overloaded stomach relieves itself, or a bilious attack rights the wrong, but with the old rheumatism, neuralgia and nervous troubles frequently come from eating too heartily. A spare old age is better than corpulence. Excessive fat indicates food not properly assimilated.

What might be food in health, may prove a poison in sickness. In fevers the substance of the body is being burnt up. Do not add fuel to the flames by feeding the patient on carbonaceous food. The diet should furnish nutriment without

heat. In typhoid ulcerations appear in the intestines. Food with very little waste matter in it should be fed, and such as would be largely taken up in the stomach. Even the curd from milk may be irritating. Milk should be rendered bland by being diluted with an alkaline, such as a little soda or salt. Plenty of water should be given the patient as it helps to reduce and keep down the fever and also carries off waste material. For ulcer or cancer of the stomach coarse, gritty food or that which would distend the stomach should not be given, neither should milk be taken in its natural state. Dyspepsia is due to an inflammatory state of the stomach. Aropy mucus covers up the glands in the stomach and prevents the secretions from their acting on the food. A cup of hot water half an hour before meals washes the stomach and makes it in a better condition to receive food. Dilution of the stomach is quite different from dyspepsia, although the two are often confounded.

The stomach when empty lies in folds. Frequently in elderly people the stomach has difficulty in folding. It has lost its elasticity and remains distended, causing distress. This is known as dilation and hot water, especially before retiring is not good for it. People troubled with liver complaints should avoid fats and starches and should eat plenty of green vegetables.

The following dishes were prepared before the class:

#### OATMEAL GRUEL

Soak  $\frac{1}{2}$  cupful oatmeal in 1 pint cold water for one hour. Strain to remove the cellulose. Boil for an hour or more at a high temperature. If it thickens too much more water may be necessary. A little salt, sugar and cream may be added when gruel is served. A change is made by boiling a stick of cinnamon and some lemon rind with the gruel and strain hot over the beaten yolk of an egg and add sugar to suit taste. Serve hot.

Oatmeal jelly is made by boiling the gruel a little longer. Serve when cold and set.

#### BEEF TEA

Put 2 tablespoonfuls of finely chopped meat in a gem jar, add one pint of cold water and a little salt. Allow it to stand until the water is quite red, then place the jar in a pan of water on the stove and cook slowly. Remove from the stove while the liquid is still red. Beef tea that has brown flecks through it is much harder to digest and is not so nutritious.

#### HAMBURG STEAK

Scrape with a knife a lean piece of beef. Salt slightly the scraped meat, form in a flat cake and broil over the coals or in a hot pan.

**Brains on the Farm**



As much needed there as anywhere to be successful. Don't plod; learn to farm intelligently through our home study course in **MODERN AGRICULTURE.**

Treats of soils, tillage, drainage, fertilizers, crop rotation, stock feeding, dairying, etc.

Wm. F. Brooks, Ph. D. (Mass. Agr. College), Head of Dept. Text-books free to our students. Send for 36-page booklet telling all about it.

THE HOME CORRESPONDENCE SCHOOL, TEMPLE BUILDING, TORONTO

**LEMON GELATINE PUDDING**

One-half oz. gelatine soaked in 1 pint of water. Cut off the thin yellow rind of two lemons, add it with 2 inches of stick cinnamon and six cloves to the gelatine and bring to the boil. Strain and add the juice of the lemon and  $\frac{1}{2}$  cup of sugar (more if preferred). Let cool to the consistency of honey, then beat until white and add the well beaten whites of two eggs or one cup of good cream whipped stiff. Pour into a mould and serve with a boiled custard made by heating 1 cup of milk in which is put a few cloves and a little cinnamon. Strain the hot milk over the beaten yolks of two eggs and one tablespoonful of sugar. Put into a double boiler and cook until it coats the spoon.

Laura Rose,

O. A. C., March 4th.

**Eggs in Therapeutics.**

A mustard plaster made with the white of an egg will not leave a blister.

The white skin that lines the shell of an egg is a useful application for a boil.

White of an egg beaten with loaf sugar and lemon relieves hoarseness—a teaspoonful taken once every hour.

An egg added to the morning cup of coffee makes a good tonic.

A raw egg with the yolk unbroken, taken in a glass of wine, is beneficial for convalescents.

It is said that a raw egg swallowed at once when a fishbone is caught in the throat beyond the reach of the finger will dislodge the bone and carry it down.

The white of a raw egg turned over a burn or scald is most soothing. In bowel trouble a partly beaten raw egg relieves the feeling of distress.—The Public Health Journal.

**Keeping the Teeth in Good Condition.**

Use a brush with bristles which are neither too stiff nor too soft, and brush the teeth on all sides.

The teeth should be examined at least twice a year by a competent dentist. They should be washed with lukewarm water before break-

fast, after each meal, and before retiring.

An extremely important item in the care of the teeth is the use of dental floss always after eating. This, together with a soft orange-wood toothpick, will remove every particle of food from the teeth.

There are so many excellent dentifrices that it is hard to decide which one is best. Precipitated chalk is always good, and may be rubbed about the gums after eating anything acid and also before retiring.

Avoid exposing the teeth to extremes of temperature. Very hot and very cold substances have a tendency to crack the enamel. Never use a metal instrument of any kind in the mouth, and neither bite thread nor crack nuts with them.—February Ladies' Home Journal.

**Hints by May Manton.**

BOY'S RAGLAN OVERCOAT, NO. 4038.

The raglan overcoat is eminently well suited to boy's wear and is in the height of style, for them as well as for grown men. This stylish model includes all the essential features and can be made with or without the applied yoke. As shown the material is Oxford grey cloth with velvet collar, but melton and kersey cloths are both correct both in plain colors and mixtures.

The coat is made with loose sacke fronts and a box back. When the yoke is used it is applied over



4038 BOY'S RAGLAN OVERCOAT. 6 TO 12 YRS.

the cloth. The fronts are self faced and joined to the collar which rolls back with them to form the notched lapels. The closing is effected invisibly by means of a fly. The sleeves are in coat style with roll-over cuffs and an upright pocket is inserted in each front.

To cut this coat for a boy of 8 years of age,  $1\frac{3}{4}$  yards of materials 54 inches wide will be required, with  $\frac{1}{8}$  yard of velvet for collar.

The pattern 4038 is cut in sizes for boys of 6, 8, 10 and 12 years

The price of above pattern post-paid is only 10 cents. Send orders to The Farming World, Confederation Life Building, Toronto, giving size wanted.

Only vegetable oils—and no coarse animal fats—are used in making

**"Baby's Own Soap"**

PURE, FRAGRANT, CLEANSING.

Doctors recommend it for Nursery and Toilet use

Beware of Imitations.

Albert Toilet Soap Mfrs., Montreal

**The Proper Way to Introduce People.**

In making an introduction the man is always taken to the lady to be presented, and the formula is, "Miss A, may I present Mr. B?" Where two women or two men are presented the elder is addressed where the difference is marked. A girl presents her friends to her mother, but the mother says, "Allow me to present my daughter, Mrs. Blank." A woman should rise when another woman is presented to her, unless she is much younger than herself. If a man is presented she retains her seat and bows and smiles cordially. Men always shake hands when introduced to each other. Women do so when desiring to show especial friendliness.—February Ladies' Home Journal.

**A New Game for Winter Evenings.**

Here is a novel and amusing way of entertaining young people and older folks at parties or family gatherings. Let the hostess act as a fortune-teller, who will give each man present the name of his future wife, according to his occupation. Then have those present guess what these names should be. To make the subject clear tell them that a civil engineer's wife will be "Bridget." Here's a list of some others: A chemist's, "Ann Eliza"; a gambler's, "Betty"; a humorist's, "Sally"; a clergyman's, "Marie"; a shoemaker's, "Peggy"; a sexton's, "Belle"; porter's, "Carrie"; dancing-master's, "Grace"; milliner's, "Hattie"; gardener's, "Flora"; er's, "Caroline"; upholsterer's, "Sophy"; astronomer's, "Stella"; doctor's, "Patience"; fisherman's, "Netty"; gasman's, "Meta"; marksman's, "Navy."—February Ladies' Home Journal.

—It's funny about bridal pairs. They're not like other pairs at all. "Why not?" "They're softest when they're green."



# The Farming World.

A PAPER FOR FARMERS AND STOCKMEN.

Publisher, . . . . . D. T. McAINSH.  
Editor, . . . . . J. W. WHEATON, B.A.

The Farming World is a paper for farmers and stockmen, published weekly, with illustration. The subscription price is one dollar a year, payable in advance.

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THE FARMING WORLD,  
CONFEDERATION LIFE BUILDING,  
TORONTO.

## QUESTIONS AND ANSWERS

### Permanent Pastures: Lucerne

A. F. Bradford, Ont., writes: "Would you or some of your subscribers answer the following questions: What would be the best seed to sow for a permanent pasture on a rolling field with loamy soil, some parts sand and gravel? How would lucerne do? When and how should it be sown?"

The mixture for a permanent pasture recommended by the Central Experimental Farm, Ottawa is as follows: Timothy 6 lbs., common red and mammoth red clovers 2 lbs. each, meadow fescue 4 lbs., orchard grass 2 lbs., Kentucky blue grass or Canada June grass 1 lb., lucerne 2 lbs., alsike 2 lbs.

In this department last week we gave some information as to the value of lucerne for pasture. From what we know of the plant and its habits of growth it would hardly be suitable for a permanent pasture sown by itself. A mixture such as that recommended above would suit better. No mixture for permanent pasture will be altogether successful without there is a certain proportion of June grass in it.

Alfalfa or lucerne can be grown best in a warm climate with a moderate rainfall and a deep alluvial soil of calcareous or lime origin. Alfalfa succeeds in a variety of soils, but reaches its greatest perfection on the deep alluvial sandy soils of river or creek valleys or "bottoms". It does better on a light than on a heavy soil, but in many cases has been grown on heavy soils with good results. Lime is the favorite mineral element of alfalfa, while iron is injurious to it. Hence localities

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NON-POISONOUS. PREVENTS BLIGHT.

## Insure Your Crop

Against destruction by bugs or worms by using

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# EIGHTH Canadian HORSE SHOW

Toronto Armouries: THURSDAY, FRIDAY and SATURDAY  
April 10th, 11th and 12th

Entries close Monday, March 31st.  
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REDUCED RATES ON ALL RAILWAYS  
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## BIG BANK ACCOUNTS

from little savings grow. It is due to the daily savings MADE BY USING THE U.S. SEPARATOR that it is so popular and that its sales are increasing so rapidly. Some of the ways it saves are

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- By wearing longer and requiring less expense for repairs.

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where "hard" water predominates is more favorable for its growth than where "soft" water prevails. It is seldom however, that iron is found in sufficient quantities in soils to be injurious to the growth of alfalfa, but where iron is known to be in the soil in abundance it is useless to sow this clover. A soil of decaying limestone is the ideal one for alfalfa. Alfalfa will not grow on swampy land, though it has been grown on damp lands that have been well drained. The alfalfa plant is a nitrogen gathered directly from the air by means of the tubercles on its roots. As the seeds of the alfalfa plant are small they require a most carefully prepared seed bed. The soil should

be made so fine that it can come in direct contact with the seed and it should be firmed either by rolling or otherwise so that there may be less danger from drying out before the tender plants have established themselves. The seed should be sown at a time so as to give the young plants the longest and most favorable season in which to grow, so that they may be able to withstand any unfavorable conditions that follow. The alfalfa plant is one of the very weakest during its early life. Spring sowing should not be done until the season is well advanced and there is no danger of a cold, wet period or of frosts. Fall seeding is advisable where

grass and weeds are likely to badly choke the young plants. Fall seeding should be done after the rains have come and the ground is in good condition.

### The Angus Breeders Meet.

A number of the Angus breeders meeting together at the Provincial Sale at Guelph, discussed the merits of the breed, their success in the past and the great possibilities of the future. All were of the opinion that something should be done to enhance the interest of the breed in Canada. It was therefore decided to meet at the Commercial Hotel at 1.30 o'clock on the 26th of Feb.

After some discussion it was thought best to form a Canadian Association not in opposition to the A. A. A. Breeders' Association of America, as all were thoroughly satisfied with the workings of that organization, but to give a stimulus to the business in Canada. The following officers were accordingly elected. President, James Bowman, Guelph; Vice-pres., John Varcoe, Goderich; sec.-treas., J. W. Burt, Coningsby.

The executive committee will comprise the president, vice-pres., secretary, and the following members:—William Stewart, Lucasville; Walter Hall, Washington; Alexander McKinnon, Hillsburg; James Sharp, Rockside; James McLeod, Plainville.

The name chosen for the association was the Canadian branch of the A.A.A. Breeders' Association. The fees to be charged for membership will be \$1.00.

All who are interested in the breeding of Angus cattle should help on this good work as the aim of the association is the promotion of the breed in general in Canada.

All correspondence with the secretary will be promptly attended to.—Com.

### Canada's Live Stock Commissioner Appreciated.

The following appeared in a recent issue of the London, England, Rural World:

"Mr. F. W. Hodson, the Dominion Live Stock Commissioner, has recently returned home from a visit to Great Britain, the object of which was to inspect the farms and live stock, and especially the homes and herds of some of our leading breeders, as also to study the conditions and management of the agricultural exhibitions over here.

"Mr. Hodson has contributed a highly interesting article to a recent number of The Farming World (Toronto), entitled 'Live Stock Conditions in Great Britain,' in the course of which he pays the following graceful tribute to the helpful characteristics of British women and their interest in agriculture—more particularly in stock. Referring to the attendance at our agricultural shows, he says, 'A pleasing feature is the large number of ladies who are present. They do

not come alone to be seen, but to see and study conditions. British women, whether English, Scotch, or Irish, are frequently very good judges of live stock, and are fond of animals. Most of them know a horse and a dog very well, and many of them are expert judges of cattle, sheep, and swine. About the stock pens and the judging rings, may be seen at all times, both young, middle-aged, and old ladies, who freely criticise the qualities and merits of each animal as it comes before them. While it is true that the British women love animals, and spend a certain portion of their time examining them, and making themselves acquainted with them, they do not in any way lose their lady-like demeanor. There are no more accomplished, lady-like, or domestic women in the world than are to be found among the British people; in fact, the rank and file are not only well educated, but cultured."

"We notice with pleasure that this discriminating Canadian gentleman includes the fair daughters of Erin among 'British' women."

### An Excellent Statement.

The statement presented at the annual meeting of the Federal Life Assurance Company of Canada, held at the head office, Hamilton, Ont., which appears in this issue, is of a most satisfactory character. While the income shows a gratifying increase, the assets of the company now total \$1,449,925.58, exclusive of guarantee capital, or \$178,584.66 in excess of 1900. The security to policyholders amounts to \$2,319,925.58, while the liabilities are placed at \$1,290,849.94, leaving a surplus of \$1,029,075.64. Exclusive of uncalled guarantee capital the surplus to policyholders amounts to \$159,075.64. There was paid to policyholders \$182,925.67. Mr. David Dexter, who for the past twenty years has been the efficient managing director of the company, was unanimously elected president at the meeting of the Board of Directors.

### Good Roads Convention.

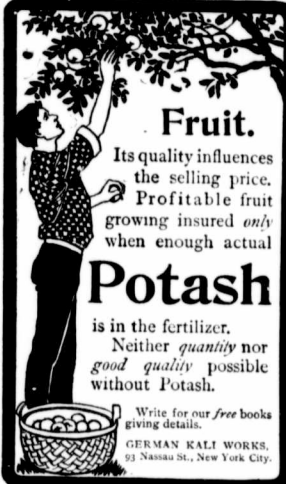
An important meeting of good roads workers will be held at Ottawa, on Friday and Saturday of this week. The meeting is being held under the auspices of the Eastern Ontario Good Roads Association, and will be addressed by Mr. A. Pattullo, M.P.P., A. W. Campbell, Deputy Minister of Public Works, Toronto and others.

A girl's training is the icing on the cake; sometimes it's a mighty different flavor from the rest of it.

## Wanted

SITUATION as first man in cheese factory for coming season. References furnished. Address

THE FARMING WORLD



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Largest growers of seed potatoes in America. 30 best varieties. Northern Crown always best. Highest proof of enormous yields, highest quality. Lowest price for 10, 100, or carload. Elegant 100-page Bargain Seed Catalogue FREE. Write for it today.

## Poultry and Eggs.

Advertisements under this head one cent a word. Cash must accompany all orders under \$2.00. No display type or cuts allowed. Each initial and number counts as one word.

**BROWN Leghorns, Prolific early layers:** Strain won at Pan-American. Stock for sale—Minorcas, Barred Rocks, Chieftest Strains, Eggs in season.  
**JOHN B. PETTIT, Fruitland, Ont.**

**FOR SALE**—Mammoth Bronze Turkeys, sired by 10 lb. imported yearling tom.  
**R. G. ROSE, Glanworth, Ont.**

**EGGS.**—\$1.25 a setting; two settings, \$2. Pens headed by Industrial winners. White Rocks, S.G. Dorkings, Indian Games, Black Minorcas.  
Box 102, Paris, Ont.

**PIGEONS FOR SALE,** cheap, if sold at once Blue, Silver and White Fantails, Swallows, Short-Tail Tumblers, Homers, Nuns and Antwerps.  
**NORMAN MCPHIE, Hamilton, Ont.**

### BELGIAN HARES

Twelve surplus Does, six months, and three Bucks, for \$1 each.  
**M. A. WHITE, Paris, Ont.**

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We want a reliable man with a horse and rig in every township to take subscriptions for THE FARMING WORLD in connection with our New Cabinet Sewing Machine at half price. If you are in a position to work hard for two or three weeks, write us today, name the township you wish reserved for you, and at the same time give us the names of two good men as references. We will name terms that will surprise you.

See advertisement of machine on another page. Write to-day. Address

THE FARMING WORLD,  
Confederation Life Building, TORONTO



# PURE-BRED STOCK

## NOTES AND NEWS FROM THE BREEDERS

*These columns are set apart exclusively for the use of breeders of pure-bred stock and poultry, any information as to importations made, the sale and purchase of stock and the condition of herds and flocks that is not in the nature of an advertisement will be welcomed. Our desire is to make this the medium for conveying information as to the transfer of pure-bred animals and the condition of live stock throughout the country. The co-operation of all breeders is earnestly solicited in making this department as useful and as interesting as possible. The editor reserves the right to eliminate any matter that he may consider better suited to our advertising columns.*

**Horses**

The North British Agriculturist, of February 12th says: Last week Messrs. Dalgetty Brothers shipped nine further stallions to Canada. They were purchased mainly from Mr. John Marr, Cairnbrogie; Mr. Peter Crawford, Dumfries; Mr. Walter S. Park, Hatton; Mr. Alex. McIntosh, Greenhill, Houston; and Mr. Matthew Marshall, Stranraer, and were useful, well-colored horses, by such sires as Prince of Gallo-way, 8019; Prince of Carruchan, 8151; Ethiopia, 5750; Prince Cedric, Gallant Poteath, William the Conqueror, and Hiawatha, 10076. Mr. A. K. Tegart, Tottenham, Co. Simcoe, Ontario, Canada, has just bought from Mr. George Bean, West Ballochy, Montrose, a specially well-bred Clydesdale in the rising three-year old entire colt Royal North, 11174. This horse was bred by Mr. Alexander Lyon, Stonieley, Alvah, Banff, and was got by Royal Alexander, 9997; dam Castle Gowan, 11727, by Lord Hopetoun, 2965; granddam Castle Lily, 7061, by Top-Gallant, 1850; g. granddam Nelly, 3410, by Surprise, 845; g. g. granddam Dandy, 1502, by Young Garibaldi, 972; g. g. g. granddam by Sovereign (Milloy's). Royal North is a beautiful dark brown horse, very thick and blocky; has the best of sound blue feet, well set pasterns, good bone, and nice hair; and is very closely bred on both sides from the noted breeding and show horses Darnley, 222, and Prince of Wales, 673, having three crosses of the former and two of the latter. Both in color and shape, he greatly resembles the great Darnley, but has straighter and more springy action than he had, which he inherits from Prince of Wales. From his choice breeding, great quality, and thorough soundness, he is the very ideal of a Canadian horse, and should prove a good breeder, and be a profitable investment to Mr. Tegart, who shipped him yesterday per Huronian.—North British Agriculturist.

**Cattle.**

Special attention is directed to the dispersion sale announcement of Mr. John H. Douglass, M.P.P., on the outside front cover of this issue. For many years, Mr. Douglass has been one of the leaders in the breeding of Ayrshire cattle in Canada. Though he has not exhibited of late years his record in the show ring in years gone by placed him in the front rank as a breeder of this fine dairy breed of cattle. Being directly engaged in the dairy business Mr. Douglas bent his energies towards securing a herd of Ayrshires specially noted for their milk producing qualities. In this he succeeded admirably and has today a herd of milk producing Ayrshires second to none in Canada. They are of the modern type with large udders and good sized teats. Fairy Queen (Imp.) formerly of Mr. Douglass' herd gave 60 lbs. of milk per day on grass alone, a pretty good record. As to the individual animals to be offered we will deal more particularly with them in a later issue. We might mention, however, that the noted bull, Blair Athol, is catalogue for the sale. He is out of an imported dam and sired by Glencairn (Imp.) Bonnie Doon a noted cow out of Amy, the sweepstakes heifer at the Toronto Industrial in 1893, is among those to be offered. Another good cow is May Queen, a daughter of Fairy Queen, already mentioned.

Three bulls, twenty-five cows and a number of yearling heifers and young calves making over forty in all will be sold and offer a splendid opportunity to parties desiring to procure the very best kind of dairy stock. As Mr. Douglass is giving up the breeding of Ayrshires everything will be sold without reserve.

A fresh egg has a lime like surface to its shell.  
Never give young fowls water before giving them their breakfast.

# BELL .. PIANOS . . . AND BELL .. ORGANS.



Built to last a lifetime  
By the Largest Makers  
in Canada



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Catalogue No. 41 Free

**HORSEMEN! THE ONLY GENUINE IS**

# GOMBAULT'S CAUSTIC BALSAM.

*Use genuine without the expense of  
The Sawney-Williams Co.  
Sole Agents for the Province for the  
U.S. & CANADA. CLEVELAND, O.*

The Safest, Best BLISTER ever used. Takes the place of all liniments for mild or severe action. Removes all Bunches or Blemishes from Horses and Cattle. SUPERSEDES ALL CATHERY or FRIKING. Impossible to produce scar or blemish. Every bottle is warranted to give satisfaction. Price \$1.50 per bottle. Sold by Druggists, or sent by Express, charges paid, with full directions for its use. Send for free descriptive circulars.  
THE LAWRENCE-WILLIAMS CO., Toronto, Ont.



ROCK SALT for horses and cattle, in ton and car lots. TORONTO SALT WORKS, Toronto

Purest  
and  
Best

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TAKE NO OTHER.

Awarded Silver and Bronze Medals,  
Paris Exposition, 1900.

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Limited  
Windsor, Ont.

WOOD ENGRAVING,  
PHOTO ENGRAVING,  
HALF TONES  
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J.L. JONES ENG. CO  
TORONTO  
please mention THE FARMING  
WORLD

# CONSTIPATION INDIGESTION TORPID LIVER

These are the great curses which afflict three-quarters of the present generation. Sufferers from either one or all of them must always feel miserable, and sooner or later become chronic invalids, useless to themselves and a burden and nuisance to friends and family. There is one sure, safe and absolute cure which you can test without any expense. Our remedy is Egyptian Regulator Tea, a trial package of which we will send you free and prepaid on request. Unless you find our claims are true, we must be the losers by this liberal act. Shall we send you the trial package, and lead you to perfect health and happiness? Address:  
THE EGYPTIAN DRUG CO., New York.



# Market Review and Forecast

Office of The Farming World,  
Confederation Life Bldg.

Toronto, March 10th, 1902.

The outlook for spring trade continues bright. The bad state of the country roads during the week injured trade somewhat, but mail orders have been good. Stocks continue active with Canadian issues firmer. Money seems ample for all legitimate needs and quite a number of call loans are reported at 4½ to 5 per cent, mostly at the outside figure. Discounts continue at from 6 to 7 per cent.

## Wheat.

We have reached the "thawing" and "freezing" season in connection with the growing wheat crop and speculators are hard at work trying to find something in the reports that will enable them to manipulate the market to their own advantage. The commercial estimate of the United States wheat crops for 1901 is 715,000,000 bushels, yet some claim that this is considerably under what it should be. Some reports regarding Western Ontario winter wheat seem to show that it is not as sturdy and hardy as it should be. It is yet a little early to estimate results in this province.

As to the market things are rather quiet locally, though a firmer feeling is reported in Western wheat. At Fort William No. 1 Northern is quoted at 69½c to 70c and No. 2 at 66½c to 67c. Here the market is quiet at from 72c to 73c for red and white middle freight, goose at 68c to 69c and spring at 71c to 73c east. On Toronto farmers' market red and white being 73c to 79c, goose 67c to 67½c and spring file 70c per bushel.

## Oats and Barley

Oats rule steady though the English market is lower with a brisk demand. Oats are quoted here at 41c to 41½c at outside points, and 43½c for No. 2 mixed on track Toronto. On the farmers' market oats bring 47½c to 48c per bushel.

The barley market is quieter. Quotations here are 50c to 56½c as to quality and point of shipment. On Toronto farmers' market, malt barley brings 54c to 63c per bushel.

## Peas and Corn

Peas rule steady with car lots selling at points West of here at 79½c to 81c per bushel. The market here is firmer at 80c to 82c in car lots. On the farmers' market peas bring 85c per bushel.

Canadian yellow corn is quoted at Montreal at 65½c to 66½c per bushel in car lots. Here the market is easier at 56c to 56½c for No. 2 yellow west.

"THE D. & L." EMULSION OF COD LIVER OIL taken in cases of general debility and loss of appetite, is sure to give the best results. It restores health and renews vitality. Davis & Lawrence Co., Ltd., manufacturers.

## NO RESPONSIBILITY

Executors and Trustees are relieved from all responsibility in the investment of the funds committed to their charge if they purchase our

### FOUR PER CENT DEBENTURES

An order of the Lieutenant Governor-in-Council has authorized the investment of trust funds in these debentures.

## The CANADA PERMANENT and WESTERN CANADA MORTGAGE CORPORATION

Head Office, Toronto Street, TORONTO.

## Brn and Shorts

Ontario bran in car lots is quoted at Montreal at \$19.00 to \$19.50, and shorts at \$21.00. The latter being reported scarce. City mills here sell bran at \$18.00 and shorts at \$20.00 in car lots l. o. b. Toronto.

## Potatoes and Beans.

Car lots of Ontario potatoes are selling at Montreal at 70c to 78c as to quality. Cars on track, which are not too plentiful are selling here at 62c to 65c per bag. On the farmers' market potatoes bring 75c to 80c per bag.

There is a decided slump in the bean market reported from Montreal due to the forcing of the market by some dealers loaded up with high priced stocks. Car lots have sold there at from \$1.05 to \$1.12 per bushel. And Ontario dealers are reported to be offering car lots at Halifax and St. John at \$1.15 to \$1.20 per bushel.

## Hay and Straw.

The Government is still buying hay for South Africa. Owing to the shortage of cars and the generally bad state of the country roads hay orders have been difficult to fill. Owing to light receipts there is a better tone in the English market for Canadian baled hay. At country points east baled hay has been selling during the week at \$7.50 to \$8.00 for No. 2 timothy in car lots, l. o. b., on track.

The hay market here rules steady at about last week's quotations or \$10.25 per cwt. for No. 1 timothy and \$9.50 for No. 2 in car lots on track, Toronto. On the farmers' market timothy brings \$13 to \$14, clover \$8.00 to \$10.00 and sheaf straw \$9.00 to \$10.00 per ton.

## Eggs and Poultry.

Receipts of new laid eggs have been more liberal and prices have taken a decided drop. At Montreal, new laid sold at from 20c to 23c per dozen, in case lots. Here prices for new laid in case lots have fallen to about a 15c basis. At the end of the week sales were made at 15c with a further drop expected. On Toronto farmers' market, new laid bring 15c to 17c a dozen.

At Montreal dressed poultry is very firm, choice unfrozen turkeys selling in jobbing lots at 12½c to 13c, chickens 10c to 11c, geese 7c to 8c and ducks 9c to 10c per lb. There is but little demand here and prices rule steady. On Toronto farmers' market chickens bring 45c to 70c and ducks \$1.00 to \$1.25 per pair and geese 8c to 9c and turkeys 11c to 13c per lb.

Live poultry like dressed are scarce. The Canadian Produce Co., Ltd., 36 and 38 Esplanade St. E., Toronto, will pay, until further notice for live chickens, 8c, for ducks and turkeys 11c, for geese 6c per lb. All must be young birds. For hens 5c per lb. Dressed poultry, dry picked (except hens), ½c lb higher. These prices are for weight on arrival. Crates for live poultry supplied free, and express paid up to 50c per 100 lbs. of chickens. No thin birds will be taken.

## Seeds

Wholesale selling prices at Montreal for seeds are: Alsike, firm, at \$14 to \$17; red clover, \$9.00 to \$10.50, and timothy, \$6.50 to \$8

**WANTED**—A married man, will hire for nine months, \$20 a month and free house. Single man, \$18 per month. No milking. GEO. MANNING, Norway, Ont., Kingston Road.

## Trees! Trees!! Trees!!!

We have a full line of Fruit and Ornamental Trees for Spring, 1902, at lowest possible prices. Headquarters for packing dealers' orders.

Farmers wishing to buy first-class stock absolutely first hand and without paying commission to agents, should write to us at once for a Catalogue and Price list.

Don't wait until the last minute, as you will be disappointed. Place orders early and secure the varieties you want.

Correspondence solicited.

**WINONA NURSERY CO., Winona, Ont.**



**WANTED—BUTTER, POULTRY, EGGS**

We have a large outlet, having Twenty-one Retail Stores in Toronto and suburbs. Payments weekly. Established 1851.

**The WM. DAVIES CO., Limited**

Head Office—Retail Dept.

Correspondence invited. 24 Queen St. West  
TORONTO

per cwt. On Toronto farmers' market alsike sells at \$6.50 to \$8.00; red clover \$4.50 to \$4.60, and timothy \$2.50 to \$3.25 per bushel.

**Cheese**

The cheese market continues to advance under an improved English demand and holders are now asking 11c for finest westerns though 10½c is the highest sale reported. There is a reported corner of the market for finest Westerns, but this is only a rumor. Some fodder cheese are reported as being made west of Toronto. Our dairymen have surely learned by this time that to make this stuff and ship it to Great Britain, will injure the prospects for summer goods. The buyers, however, who protested last spring so strongly against the manufacture of this early cheese, will no doubt be consistent this season and refrain from buying.

**Butter**

The market is firm for choice creamery but dull for other grades. The Trade Bulletin says of last week's trade at Montreal:

"For choice fresh new milk creamery 22½c to 23c is obtainable; but this class is of so small a proportion of the offerings that it should not really be quoted as it is apt to give a misleading idea of the market as a whole. Finest fall and winter made creamery is selling at 21½c to 22c, and commission houses inform us that it is hard to get the latter figure from grocers. And for anything below finest there is a dull dragging market. Dairy butter is very difficult to dispose of."

The demand here for choice creamery is good and it sells readily at 22c to 23c for prints and 21c to 21½c for solids. Choice dairy sells well at 16c to 18c for pound rolls and 16c to 17½c for large rolls. On Toronto farmers' market pound rolls bring 16c to 19c, and crocks 15c to 17c per lb.

**Cattle.**

American cattle markets ruled generally easier towards the end of last week. Though fairly steady, prices were obtained. On Friday, cables were lower. For the past two or three days receipts have been light on Toronto market, comprising on Friday 675 cattle, 790 hogs, 213 sheep and lambs and about 45 calves. This light delivery caused trade to be brisk

**THE MATERIALS USED IN "THE D & L" EMULSION are the finest the market affords regardless of expense. Taken in cases of wasting diseases, loss of weight, or loss of appetite, with great benefit. Davis & Lawrence Co., Ltd., manufacturers.**

**THE FARMING WORLD****Frost Wire Fence is a Strong Fence.**

The 10 wires and 6 stay fence has heavy uprights. There is not a weak spot in its construction. It will last three times as long as other fences. Place your order for **Frost Fence**, satisfaction guaranteed.

Write for Catalogue. THE FROST WIRE FENCE CO. LTD., WELLAND, Ont.

with a good demand at firmer prices, more particularly for butchers' cattle. The best load of shipping cattle offered on Friday sold for \$5.50 per cwt., and the best picked lot of exporters, 12 in number, at \$5.60 per cwt. The best picked lot of heavy butchers' cattle, 1100 to 1200 lbs. each, sold at \$4.60 to \$5.00. The best picked lot of butchers', 900 to 1050 lbs. each, sold at \$4.60 to \$4.90 per cwt. and were scarce at these prices. Had there been a fairly large run it is doubtful if prices would have been as strong. The stiffness in prices was caused by the scarcity of good cattle. Light feeders, 900 to 1000 lbs. each, are more plentiful than those of heavier weights, but they bring good prices. One load of feeders, weighing 970 lbs. each sold at \$4.35 per cwt. Milch cows and springers are not in as good demand. Calves are more plentiful, but prices remain steady at about \$2.00 for scrubs, \$4.00 to \$6.00 for common to medium and \$8.00 to \$10 each for good to choice.

**Export Cattle.**—Choice loads of these are worth from \$5.40 to \$5.50 per cwt., medium exporters \$4.80 to \$5.15, and light ones \$4.25 to \$4.60 per cwt. Heavy export bulls sold at \$4.00 to \$4.40 and light ones at \$3.60 to \$3.90 per cwt., choice export cows sold at \$3.50 to \$4.00 per cwt.

**Butchers' Cattle.**—Choice picked lots of these, equal in quality to the best exporters, weighing 1,000 to 1,050 lbs. each, sold at \$4.40 to \$4.65 per cwt., good cattle at \$4.00 to \$4.25, medium at \$3.75 to \$4.00, and inferior to common at \$3.00 to \$3.50 per cwt.

**Feeders**—Heavy, well-bred steers from 1,100 to 1,200 lbs. each, sold at \$4.50 to \$4.75, and other quality at \$3.50 to \$4.00 per cwt. Light steers, 900 to 1,050 lbs. each sold at \$3.75 to \$4.40 per cwt.

**Stockers**—Yearling steers weighing 500 to 800 lbs. each sold at \$3.30 to \$3.75, and off colors and those of inferior quality at \$2.75 to \$3.15 per cwt.

**Calves**—These are in steady demand at Buffalo. Good to choice veals bring \$7.75 to \$8.25 per cwt. At Toronto market good to choice

calves bring \$4.50 to \$5.00 per cwt.

Milch cows and springers sold at \$27 to \$48 each.

**Sheep and Lambs.**

There was a light run of sheep and lambs, and consequently prices were firm at quotations. Sheep sold at \$3.50 to \$3.75 per cwt. for ewes and \$2.50 to \$3.00 for bucks. Lambs sold at \$3.75 to \$4.25 each and \$4.50 to \$5.25 per cwt.

**Hogs**

There is no change to report in the quotations for hogs, only that a weaker market is looked for this week. Best select bacon hogs sold on Friday at \$6.00, and lights and fats at \$5.75 per cwt. Unculled car lots sold at about \$5.87½ per cwt.

For the week ending March 15th, the Wm. Davies Co., Toronto, will pay \$6.00 per cwt. for select bacon hogs, \$5.75 for lights, and \$5.75 for fats.

The Trade Bulletin's London cable of March 6th, re Canadian bacon reads thus:

"The market is dull at a decline of 3s per cwt. on large receipts from Denmark."

**Horses**

Only a few horses were sold at auction at Grand's last week and they were nearly all of the livery type. Quite a few high-class horses were sold by private sale, mostly good quick, general purpose and active heavy delivery horses. These sold at good figures. The general outlook for trade is good and the sales this week are expected to be among the best ever held.

**A LONG RECORD OF SUCCESS** in curing cuts, burns, and bruises, as well as all bowel complaints, is held by Pain-Killer—over 60 years. Avoid substitutes, there is but one Pain-Killer, Perry Davis' 25c. and 50c.

**Butter Wrappers.**—We are the largest imported agents of Genuine Vegetable Parchment in Canada. Cur stock is always A1. Write for samples and prices. SENTERL REEVES Co., Box 724 Woodstock, Ont.

**Catarrh and Consumption**

I have spent nearly 20 years in the treatment of the above named troubles and believe I have effected more permanent cures than any specialist in the history of medicine. As I must soon retire from active life, I will, from this time on, send the means of treatment and cure as used in my practice. Free and post-paid to every reader of this paper who suffers from these loathsome, dangerous and disgusting diseases. My treatment will positively give prompt relief and cure in the worst cases. This is a sincere offer which anyone is free to accept. Address, PROFESSOR J. A. Lawrence, 114 West 33d St., New York.

**YOU MAY NEED Pain-Killer** at any time in case of accident. Cures cuts, bruises and sprains, as well as all bowel complaints. Avoid Substitutes, there's only one Pain-Killer, Perry Davis' 25c and 50c.

# THE CABINET SEWING MACHINE

Is one of the very best in the world. It is strictly first-class and carries with it an absolute guarantee.  
**WE PLEDGE OURSELVES TO SATISFY EVERY CUSTOMER.**

If your husband could buy a thoroughly up-to-date binder at half price, how long would he put up with the old worn out one? If you think you can secure us one or two new subscribers for the **FARMING WORLD** write us. We'll make you a tempting offer.



**Cabinet No. 1**

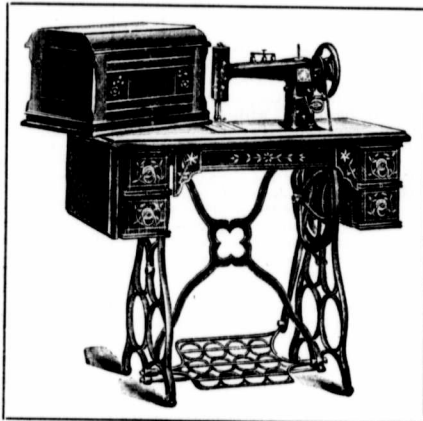
Handsome Oak Finish, with drop head and folding leaf. When the machine is not in use the head is out of sight and secure from dust. The stand forms a handy and ornamental table.

**REGULAR PRICE - - - \$50.00**

(See Special Offer below).

## Cabinet Strong Points

1. Light running.
2. Great durability.
3. High arm.
4. Self-threading Shuttle.
5. Full set attachments free.
6. Instruction Book free.
7. Handsome Oak finish.
8. Guaranteed for five years.
9. Money back if not as represented.



**Cabinet No. 2**

Same as No. 1, without drop head, but with neat protecting hood.

**REGULAR PRICE - - - \$45.00**

(See Special Offer below).

## What it Will Do

Hemming, Felling, Tucking,  
 Binding, Ruffling, Hemstitching,  
 Puffing, Shirring, Quilting,  
 Under Braiding, &c., &c., &c.

## Special Offer

**Cabinet No. 1, regular price \$50.00, Special to Farming World paid-up subscribers \$25.00.**

**Cabinet No. 2, regular price \$45.00, special to Farming World subscribers \$22.50.**

— ADDRESS —

**THE FARMING WORLD,**

*Confederation Life Building, Toronto*

**GET OUR TERMS TO  
 CLUB RAISERS AND  
 EARN A MACHINE  
 WITHOUT CASH.**

# The Federal Life Assurance Co.

ONTARIO AGRICULTURAL COLLEGE, CANADA.

The twentieth annual meeting of the shareholders of this company was held at the head office in Hamilton, Tuesday, the 4th inst. Lieut.-Col. Kerns, vice-president, was appointed chairman, and David Dexter, secretary.

## REPORT OF DIRECTORS.

The Directors presented their annual report, as follows:—

Your directors have the honor to present the report and financial statement of the company for the year which closed on December 31, 1901, duly vouched for by the auditors.

The new business of the year consisted of 1,793 applications for insurance, aggregating \$2,479,500, of which 1,704 applications, for \$2,388,768.50, were accepted; applications for \$93,731.50 were rejected or held for further information.

As in previous years, the income of the company shows a gratifying increase, and the assets of the company have been increased by \$178,884.66, and have now reached \$1,449,925.58, exclusive of guarantee capital.

The security for policy-holders, including guarantee capital, amounted, at the close of the year, to \$2,319,925.58, and the liabilities for reserves and all outstanding claims, \$1,290,849.94, showing a surplus of \$1,029,075.64. Exclusive of uncalled guarantee capital, the surplus to policy-holders was \$159,075.64.

Policies on 56 lives became claims through death, to the amount of \$126,745, of which \$5,000 was reinsured in other companies, a rate of mortality considerably under that provided for.

Including cash dividends and dividends applied to the reduction of premiums, \$30,638.70, with annuities, the total payments to policy-holders amounted to \$182,925.67.

Careful attention has been given to the investment of the company's funds in first-class bonds, mortgage securities, and loans on the company's policies amply secured by reserves. Our investments have yielded results better than the average results of insurance companies doing business in Canada.

Expenses have been confined to a reasonable limit, consistent with due efforts for new business.

The field officers and agents of the company are intelligent and loyal, and are entitled to much credit for their able representation of the company's interests. The members of the office staff have also proved faithful in the company's service.

The assurances carried by the company now amount to \$13,058,777.61, upon which the company holds reserves to the full amount required by law, and, in addition thereto, a considerable surplus, as shown above.

The work of the current year, now well under way, has produced results even better than for the same period last year, leading to the belief that a

like advantage may be maintained throughout the year.

DAVID DEXTER,  
Managing Director.  
WM. KERNS,  
Vice-President.

## 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, 1901, 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 of your company, as on Dec. 31, is indicated by the accompanying statement.

Respectfully submitted,

H. S. STEPHENS,  
J. J. MASON,

Auditors.

Hamilton, March 1, 1902.

## FINANCIAL STATEMENT FOR 1901.

Premium income .....	\$ 439,504 05
Interest .....	57,854 64
Capital stock .....	7,715 00
	\$ 504,773 69

Paid to policy-holders for death claims, endowments, surrender values, and profits .....	\$ 182,925 67
All other payments .....	158,310 16
Balance .....	163,537 86
	\$ 504,773 69

Assets, Dec. 31, 1901:—	
Debitures and bonds .....	\$ 321,172 84
Mortgages .....	619,691 65
Loans secured by policy reserves .....	235,530 59
Cash in bank and other assets .....	273,530 50
	\$ 1,449,925 58

Liabilities:—	
Reserve fund .....	\$ 1,255,056 31
Death losses awaiting proofs .....	20,400 00
Other liabilities .....	15,393 63
Surplus on policy-holders' account .....	159,075 64
	\$ 1,449,925 58

Guarantee capital .....	\$ 870,000 00
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Total security .....	\$ 2,319,925 58
Policies were issued asuring .....	\$ 2,388,768 50
Total assurance in force \$13,058,777 61	
On motion of Lieut.-Col. Kerns, seconded by Mr. Macpherson, the report was adopted.	

The medical director presented a statistical report showing a favorable mortality experience.

The retiring directors were re-elected, and, at a subsequent meeting, David Dexter was elected President and Managing Director; Lieut.-Col. Kerns and Mr. Macpherson, Vice-Presidents.

## CANADIAN PACIFIC RY.

### SETTLERS' One-Way EXCURSIONS

To Manitoba and Canadian North-West will leave Toronto every TUESDAY during MARCH and APRIL, 1902.

Passengers travelling without Live Stock should take the train leaving Toronto at 1:45 p.m.

Passengers travelling with Live Stock should take the train leaving Toronto at 9:00 p.m. Colonist Sleeper will be attached to each train.

For full particulars and copy of "Settlers' Guide" apply to your nearest Canadian Pacific Agent, or to

A. H. NOTMAN, Asst. Genl. Pass. Agent.  
1 King Street East, Toronto.

## CHAMPION EVAPORATOR

Not a single feature of the "Champion" Evaporator could be dispensed with and leave a perfect Evaporator. Durable, rapid, and high quality of product, with saving of fuel, are its features. Our sectional pan system makes it easy to handle, and everlasting. Write for catalogue, state number of trees you tap, and an estimate of your requirements will follow.



The GRIMM MFG. CO.,  
84 Wellington St.,  
Montreal, Que.

## BRITISH COLUMBIA FARMS

If you are thinking of going out to the Pacific coast, try British Columbia. A delightful climate, no extremes of temperature, fertile land, ample rainfall, heavy crops, rapid growth, and splendid market for everything you raise at good prices. The celebrated valley of the Lower Fraser River is the garden of the province. Write for farm pamphlet telling you all about it and containing a descriptive list of farms for sale. The Settlers' Association of B.C., Box 510, Vancouver, B.C.

About that Sewing Machine ad. of ours on another page, we just wish to say that this machine has been selected by us for the particular purpose of holding our present subscribers and getting new ones. If it were not thoroughly first-class in every respect would it not be folly for us to handle it. Yes, the machine is certainly all right and the price is cut down to the quick. Read our ad. and then write The Farming World, Confederation Life Building, Toronto, for further particulars. Write to-day.

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THE FARMING WORLD.