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# The Farming World



AND CANADIAN FARM & HOME

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### The Editor's Treasure House

The greatly improved position of The Farming World makes it possible for the Editor to provide a lot of good things for his readers. Let us glance within his treasure-house and see what he has in store. There are so many good things that we shall have to deal with them separately.

We find that he has regular correspondents in each of the provinces whose duty it will be to keep Farming World readers informed as to what is being done to advance higher agriculture in all parts of the Dominion and to send items of interest and value by ring directly upon the farmer's calling.

He has two regular correspondents in Great Britain. One of these is Mr. James Biggar, Dalbeattie, Scotland, who in the few brief addresses he gave, made such a favorable impression at the Provincial Winter Fair, in December last. Mr. Biggar will write over the pseudonym of "Thistle-down," and will keep Farming World readers in touch with live stock and agricultural affairs in the old land. His letter in this issue on "Horse Breeding in Scotland" is of value to every reader. The other is H. W. Stanton of London, Eng., a leading market expert, who will write regularly upon the position and prices for Canadian produce in England. These two features alone will be worth the subscription price to any Canadian farmer.

Preparations have been made for a series of articles on practical farm topics written especially for the Farming World by the best authorities. These will begin shortly and will be of immense value to every reader.

The market review with additional features will be given prominence. It will be comprehensive, and as far as possible made of value to farmers in all parts of the Dominion.

A supply of good things is in store for the home department. The household and children's corner will be given prominence. A new serial story will begin shortly. Everything contributing to the comfort and happiness of the farm home will be given attention.

Special facilities have been provided for securing photographs of live stock, farm and other scenes for illustration purposes. These will be engraved especially for The Farming World. This issue furnishes a good example of what can be done in this direction.

Is there need to search further? What we have brought to light should be sufficient to gladden the heart of every reader and make him seek his neighbor's subscription in order that he too may get a share of these good things from the Editor's treasure house. A continuous supply has been provided and there is no danger of it running short. Let every reader join hands with the Editor in making The Farming World a paper of which every Canadian farmer may feel proud.

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# The Farming World

## And Canadian Farm and Home

VOL. V. ALL.

TORONTO, FEBRUARY 2, 1903

No. 1

### A Dominion Exhibition for 1903

**A** FEW faint-hearted individuals are advising the postponement of a Dominion exhibition for Toronto until 1904. They however, advance no valid reason for so doing. On the other hand there are the very strongest reasons, if we are going to hold a Dominion exhibition at all, why it should be held in 1903.

The strongest argument in its favor is that the people want it. The Manufacturers' Association at Halifax last summer expressed themselves very strongly in favor of a Dominion exhibition for 1903. Since then the Montreal branch of that organization has strongly favored the scheme and selected Toronto as the place for holding it. More than this, at all the annual meetings of farmers' associations, held up to the present time, resolutions have been passed strongly urging a Dominion exhibition for 1903. Why, then, postpone? Take the matter up energetically and a splendid all-round Canadian exhibition can be held this year. To put it off till 1904 would be to conflict with the World's Fair at St. Louis where Canada, no doubt, will be largely represented.

Some say there is not sufficient time. But this is merely an excuse. The promoters of a Dominion exhibition do not contemplate an exhibition on the splendid scale of the Pan-American or the World's Fair, but merely an enlargement of Toronto's splendid annual fair into one drawing more exhibits from all the provinces. The new buildings will be ready and plans are underway for important changes in the layout of the grounds with a view to their greater convenience and attractiveness. The new manufacturers' building, covering two acres, will afford ample accommodation for a splendid exhibit of Canada's manufactures. True, enlarged accommodation in the dairy building and an amphitheatre for stock judging are needed. Ways may be devised to get these. But even if they cannot be

secured for 1903, there is accommodation for making an attractive display of the live stock and dairy products of the Dominion.

We recognize that to finance a larger exhibition than they now have, the Industrial Association should have some outside assistance. Considering the object in view, we believe such assistance could very well be given by the Provincial and Dominion governments. It has been suggested that the Ontario government erect buildings on the grounds for educational purposes. We quite fall in with this view. For instance the local

grounds would serve an excellent purpose in displaying the agricultural, mineral and forest wealth of the newer portions of the province. With Ontario leading the other provinces would follow.

As to assistance from the Dominion Government, it should be expended chiefly towards increasing the prize list and equalizing freight rates on exhibits from the outlying provinces. An appropriation, say of \$50,000, could very well be expended in this way and in advertising the exhibition in Canada and outside of it.

It is hardly necessary to enlarge much upon the reasons why government aid should be given a project of this kind. A precedent was established in 1887, when \$10,000 was granted to Toronto by the government at Ottawa towards a Dominion exhibition. Since that time there has been great advancement in manufactures, in the development of Canada's national resources and in progress along agricultural lines. The time is now opportune for showing, by means of a great "All Canada" exhibition, the advancement made during these years of progress and development.

This is an age of concentration. People like to see things done on a large scale. It attracts the buyer as well as the seller, and if the governments, both Dominion and Provincial, will grant liberal assistance towards a "All Canada" exhibition for Toronto in 1903, we are sure the people of the country will back them up. Speaking more particularly for the farmer, we feel sure he will give such action his hearty support. And more than that, he will back it up by one of the best exhibits of live stock and agricultural products ever seen in Canada.

### Read This Issue

Every article in this issue is well worth reading and many of them are worth preserving for future reference. The articles by "Thistle-

### "MADE IN CANADA"

For more than twenty years The Farming World has stood for all that has been best in Canadian agriculture. It has witnessed the development and marvellous growth of our great agricultural and stock-raising enterprises, and has advocated and promoted many changes in Canadian husbandry, and has itself changed with changing conditions.

In November last the entire Canadian circulation of that old and well-known journal, The Farm and Home, was acquired and added to that of The Farming World, making a paid-up list of 40,000 readers. To successfully combine two papers so different in many respects required a little time. Some concessions had to be made to the tastes of different classes of readers and provision had to be made for the manufacture of the paper with its greatly increased circulation. Our plans for the future are now, however, beginning to take shape. We are sure that the thousands of our old Farm and Home readers will be greatly pleased with the new, bright, up-to-date, three-column form in which The Farming World is now presented, and will hereafter appear. To our old Farming World readers we apologize for the temporary change we were compelled to make.

To all friends, old and new, we are glad to say that we have now every facility for making the best agricultural paper on the continent. The Farming World is an out and out Canadian product; Canadian capital, Canadian editorial skill, Canadian enterprise, employing Canadian labor and using Canadian materials, all combine in producing a strictly "Made in Canada" paper.

government could very well provide for an annex to the dairy building, in which lectures and demonstrations, not only on dairy topics, but on horticulture, live stock, etc., could be given. Some assistance from the same source might well be given towards a judging pavilion, which could be used for practical demonstrations as well. The trend of exhibitions, at the present time, is along educational lines, and every possible encouragement, both financially and otherwise, should be given fair managers in developing this feature. Moreover, a provincial building on the

down," our regular British correspondent, C. H. Hadwin and F. W. Hodson, are of special value to horse, cattle and swine breeders. Our horse-breeding industry must be placed on a more permanent footing. The stocker trade with the West is of prime importance, and the prospects for a larger supply of hogs in 1903 makes it all the more necessary that the quality should be kept at the top notch. There is something in this issue for everybody. Read and apply what you read and you will be helped.

#### Farm Help Getting Scarcer

The farm help problem, though its effect on economical farm management is not so noticeable during the more or less leisure season of winter, is still with us. At present it is no nearer to being solved than it was five years ago. Instead of improving it seems to be getting more acute. We know of several cases when re-engaging came at the end of the year, where from 25 to 50 per cent. more wages were asked by the farm help. How long is this to continue? When is the farmer to get relief? Is it not about time that some concerted, definite action on the part of some body were taken to remedy matters.

The farmers in some sections of Manitoba have taken the matter up and despatched a special agent to Great Britain to secure help for next season's work. The result of this effort will be watched with interest by farmers in all parts of Canada. The Department of Colonization for Ontario has established a labor bureau, which it is to be hoped, will help to relieve the situation in this province. Through this bureau it is intended to supply farmers as far as possible with good reliable help brought in from other countries, chiefly Great Britain.

But the farmer is not the only sufferer in this respect. Cheese and butter manufacturers are finding the greatest difficulty in getting help for the factories. Where \$10 a month and board was all that it was necessary to pay five or ten years ago for good inexperienced help, none can be had to-day at less than \$20 a month and board. This increase in price of help has come without any corresponding increase in the price of making. Other industries connected with agriculture are in a similar position. About the only calling that has more than enough to supply its present needs is that of teaching, and even here there are fewer applicants for vacancies than has been the case for some years back.

The scarcity of help is having a gradual effect upon the kind of farming followed in the older provinces. Specialties requiring a large amount of manual labor are giving way to those that can be handled without it. This may elicit such changes in a few years as may greatly modify the agriculture of Canada.

#### Want Rural Delivery

At a meeting of the South Oxford Farmers' Institute, held Jan. 6th, at Norwich, Ont., the members unanimously decided to petition the Dominion Government for rural free mail delivery. It was shown by several speakers that the system had been a splendid success where introduced in the United States.

We are very glad to see the people making a bid for rural delivery. There could be no better district in Canada for a trial than Oxford Co. Let other sections take action and send a report of what they have done to the Farming World.

#### Foot and Mouth Disease

Dr. J. G. Rutherford, chief veterinary inspector for Canada, has issued a timely bulletin, dealing with the foot and mouth disease. It is dealt with under four heads: historical, symptoms, treatment and preventive measures. The only real safety from this dreaded disease is to adopt preventive measures.

Though not the slightest trace of the disease has been found in Canada since the outbreak in the New England States, cattle raisers of all kinds should be on the watch. Send to Dr. Rutherford, at Ottawa, for a copy of his bulletin and keep informed as to the nature of this disease and the remedies.

#### Saltfleet May Have One

At a meeting of the South Westworth Farmers' Institute, held at Stoney Creek recently, Public School Inspector Smith gave an address on "Consolidated Rural Schools." The members were so favorably impressed with the scheme that steps will likely be taken in Saltfleet Township to act upon some of the suggestions made.

We would like to see some township, independently of outside aid, take this matter up and convert their schools into one consolidated rural school fully equipped for doing the work of any graded school in the towns or cities. When once established we do not think any rural community would go back to the old plan.

#### Want Embargo Removed

A deputation, consisting of Mr. Wm. Henderson, Perthshire, Scotland, Mr. McPee, President of the Montreal Board of Trade, and Mr. Reford, Jr., representing Montreal shipping interests, waited upon the Hon. Mr. Fisher, at Ottawa, on Jan. 17th, and suggested that he should renew his former protest to the British authorities regarding the embargo on Canadian cattle. While making no positive statement one way or the other, Mr. Fisher reminded his visitors that Canada had been emphatically told that its request could not be agreed to and it was a question whether it would

not be better for Canada not to interfere at present and allow English people of influence, to persuade the Imperial Parliament.

#### Going to Japan

The Hon. Mr. Fisher and his private secretary, Mr. T. K. Doherty, will leave in February on a ten weeks' trip to Japan. Mr. Fisher will visit the exposition at Osaka, where Canada has arranged for a fine exhibit. The chief object of his visit, however, is to extend our trade with Japan. There is a fine market in some parts of the country for cereals, flour, timber, fish, etc., which Canada can supply better than any other country.

#### Cattle Guard Tests

A series of tests have been recently conducted at Ottawa before the cattle guards commission, of various inventions to prevent loss from defective cattle guards. So far the tests have not been very successful and the big white steer "Texas" has made his way across most of them with little difficulty. What is desired is a guard that will prevent cattle from getting onto the track at all.

#### Renovated Butter

The authorities at Ottawa have under consideration the advisability of taking action in regard to the business of renovating butter. This business has been carried on in Canada for several years back and the product exported not as renovated butter, but simply as "butter." In view of our endeavors to establish a reputation in Britain for butter of fancy quality, it may be wise to have this renovated butter branded for just what it is, so that people may know what they are buying. So far no complaints have been made regarding renovated butter.

#### Canadian Produce in England

The letter from our regular English correspondent in this issue dealing with Canadian produce in the British market, is the most encouraging thing, from a Canadian point of view, we have published for some time. Market prospects generally have improved, there is more money to buy and very low values are likely to be a thing of the past. But more than this, Canada is mentioned as steadily gaining ground along several lines, notably in bacon and apples. To such an extent has the Fruit Marks Act improved matters that the French consul at Liverpool has taken alarm and specially warned his countrymen to look out for strong Canadian competition in the future.

All these things are most encouraging and should inspire Canadian producers to still greater efforts in improving the quality of their exports of food stuffs.





Prize-Winning Six Horse Clydesdale Team, Chicago, 1902. Owned by Nelson, Morris & Co.

## Clydesdale Horse Breeding in Scotland

Stallion Clubs—How They Are Formed and How They Benefit the Breeder

The Clydesdale horse has been so prominent as a draft animal for many years, and so distinctly a Scotch breed, that the system of hiring stallions in Scotland will doubtless be of interest to Canadian breeders. A Clydesdale mare is not generally used for breeding only. She is expected, except when suckling her foal, to do a fair share of the work on the farm, and during the autumn, winter and early spring the pregnant mare is regularly worked until nearly the time that her foal is due. This system, when due care is taken, has always proved satisfactory, and it is only in very exceptional circumstances that strong, healthy brood mares are not put to regular farm work.

Since mares are so worked, it becomes almost a necessity for stallions to travel over the district where their services are required.

### STALLION CLUBS

It is obvious that the indiscriminate competition of a number of horses in a limited district must involve considerable overlapping and extra travel, and, therefore, many districts have formed themselves into clubs for the purpose of engaging a horse to travel in that district. For at least fifty years, this has been more or less general in Scotland, and quite a considerable proportion of Clydesdale horse breeders are connected with such clubs.

The Glasgow district has for many years been one of the foremost of such societies. The members were so numerous that they required two horses, and the terms they offered were so liberal that they were always in a position to get the choice of the best animals.

They usually held a show in Glasgow in February, offering prizes of considerable value, and a committee or bench of judges was appointed to select the best animals possible. In this way,

what was called the Glasgow premium, became the blue ribbon of the year, and the owners of the best horses eagerly competed for the honor. As, however, many horses competed that did not secure the Glasgow prizes, many other clubs took the opportunity of attending Glasgow Show and engaging horses that did not secure the Glasgow prize. As the numbers of such clubs increased, the number of horses increased, till finally some 25 years ago Glasgow became the great rendezvous for such business; as many as 200 horses would be shown, and quite a large number of engagements were transacted.

### LARGE PREMIUMS

The terms for service varied, but in many cases a premium of \$200 to \$500 was given by the society, a further sum of \$2.50 to \$5.00 per mare was paid by the owner, for each mare covered, and a further sum of \$5.00 to \$10.00 was paid for each foal produced. In most cases a guarantee of 70 to 90 mares was given, and if the horse had travelled previously, a certificate of his being a sure sire was required of the owner. In course of time as the breeding of horses became more popular, stimulated by the demand for pure Clydes for export, the terms offered by outside clubs were so increased that they became competitors with the Glasgow club, and occasionally outbid them on their own market. As soon as this took place there was, of course, some temptation to forestall the Glasgow Show by making engagements privately and prior to it, and this, of course, was popular with stallion owners, who were saved the expense of sending their horses to the Glasgow Show.

This anticipation of the market has of late years become so general that now quite a large number of stallions are engaged during

winter, and the numbers shown at Glasgow have greatly diminished.

How far this has been for the farmers' benefit seems to be somewhat doubtful.

### SHOW SYSTEM BEST

There is, perhaps, one advantage in these early hirings, viz., that horses do not require to be kept in high condition for competition, and therefore enter upon their season in a good, healthy state, and are not overloaded with fat. On the other hand, the committees appointed to select horses have to do more travelling if they have to inspect horses at the owner's stables. They have not the advantage of having animals together for comparison as they would have had at Glasgow, and in a great many cases they only see such horses as the stallion owner puts before them, and often they are not shown the best animals in a stud.

It has frequently appeared, too, that quite second-rate animals have been selected privately, to which a committee would hardly have looked at twice, had they been in a show with better animals besides them for comparison.

They have further probably had to pay higher terms, for an owner is more likely to stand out for higher rates at his home stable, than he would do in an open market where his customers had plenty of competitors to choose from.

On the whole, therefore, we have come to the conclusion that while the system of forming clubs for the hiring of good sires is a good and advantageous one, the practice of private hiring does not afford the clubs either as good a choice or as favorable terms as they could secure at some central show, where many good sires would compete. The results have, on the whole, been favorable to the men who can hire their stallions in this way, but the horse breeder has suffered.

## SELECTING HORSES

Committees appointed to select horses should never exceed three in number, and if two good, skilled men can be secured it is quite enough. In order to maintain a sound interest in the club, it is not desirable to continue the same committee from year to year. At least one member should retire annually, and not be eligible for re-election. The practice of putting 4, 5 or 6 members upon a selection committee is a great mistake, and does not work well. The committee is unwieldy—responsibility is too much divided and the business is not so well done. The first qualities required in a committee man are first, sound judgment of the merits of a horse, and second, an unswerving desire to do the best possible, in the interests of the club that he represents. The influences that are brought to bear upon the members of a horse selection committee are often subtle and peculiar, and only men of entire independence should be asked to undertake a duty in which it is so difficult to please all parties.

## THE FEES PAID

to horses have, in many cases, touched high figures. Thirty years ago terms equal to \$10 at service and \$10 more when the mare proved in foal, were considered good terms for club horses. Gradually terms rose, till many clubs paid more than these figures, a few giving double these rates, and a very few as much as \$100 for a foal. With some falling off in the export trade, the general run of terms have come down to about \$10 at service and \$10 for a foal, but quite a large number of horses have had to cater for customers on such terms; as they could command, and many would not earn more than \$10 per foal—perhaps, \$6 for each mare covered. On the other hand, a few horses, whose produce has been successful in the show-ring, have been able to command quite exceptional terms. Such sires as Prince of Wales, Darnley, Lord Erskine, Macgregor and Baron's Pride, have made good seasons at such figures as \$50, \$75, \$100 per mare, and had to do little or no travelling.

The payment of such high fees is largely speculative. If a good colt is obtained, the result is profit, but there are so many casualties connected with horse breeding that losses on such terms rapidly amount to a good round sum, and the breeder for commercial purposes cannot afford to take such risks.

Horse breeding and horse showing is quite an attractive hobby, and many men of wealth and leisure have taken it up. Success in such lines brings more or less eclat, and there has been perhaps too much tendency to puff the successful exhibitor. It all, of course, tends to the circulation of money and many show animals change hands at fancy figures. But we repeat our conviction that the rank and file of

horse breeders should content themselves with a good sire at a sound commercial fee, and take their profit at the fair commercial values of draft stock.

"Thistledown."

## The Horse Breeders Rally

The Spring Stallion Show, which takes place the first week in February, at Grand's Repository, Toronto, is likely to prove most successful. The entries have been large and a number of buyers will likely be present from the Northwest and other provinces.

A number of meetings will be held as follows:—Harness, Hunter and Saddle Horse Society, Feb. 2, at 8 p.m.; Canadian Hackney Horse Society, Feb. 3, at 3 p.m.; Canadian Clyde-dale Horse Association, Feb. 3, at 8 p.m.; Canadian Shire Horse Association, Feb. 5, at 11 a.m., and the Canadian Horse Breeders' Association, Feb. 5 at 8 p.m. On Wednesday evening, Feb. 4, at 8 o'clock, an educational meeting, with practical addresses on horse-breeding and other subjects relating to horses, will be held at Grand's, to which all horsemen are invited. Hon. Sydney Fisher, Hon. John Dryden, Lieut.-Col. McCrae, Guelph; W. Smith, Columbus, will speak.

## Cheap Rates to Stallion Show

The following transportation regulations on horses for the Toronto Stallion Show on Feb. 4-6, will be granted: Stallions to Toronto, whether in carloads or less than carloads, to be charged at the full tariff rate; one man in charge of each car to be passed free. If the ownership remains unchanged the animals may be returned to the original point of shipment free of freight charges, the man in charge to pay one cent per mile passenger fare. A certificate should be secured from the secretary of the show to the effect that the ownership has not changed, in order that the return shipment may be properly protected. In case the animals are sold and the ownership changes, full tariff rates will be charged in both directions.

As regards passenger rates, arrangements have been made whereby if fifty or more persons attend the convention of Horse Breeders on the above mentioned dates, the fare will be one and one-third for the round trip, and if less than fifty, one and two-thirds will be charged for the round trip. This applies to lines east of Port Arthur.

## Begin With the Colt

To meet with best success in training and management of the horse, begin with the colt. I would begin to handle him when a week old. The first time he is taken hold of there will be a struggle. It is necessary to hold onto him until

he gives up, and will stand still, to be stroked and rubbed.

It is a good plan to handle the colt every time there is an opportunity. It is a good plan to begin with a headstall halter, when about three or four weeks old, and fasten him alongside of his mother.

## WHEN EXERCISING THE MOTHER

take the colt out with her, and that will teach the colt to lead by the halter. When the mother is hitched to the wagon to drive on the road, tie the colt alongside of the mother. Care should be taken when first working the mother, not to overheat or get her too hot, as that would have a bad effect on the colt. I have known cases of scours produced by getting the mother overheated.

There should be great care not to overfeed the mother while the colt is young. And to use gentleness and judgment at all times when handling both mother and colt.

## PUTTING THE COLT TO WORK

Make the colt thoroughly familiar with the bridle, saddle and harness by the time he is three years old. Then put him to work, alongside of his mother, or any true pulling horse. Begin with the empty wagon and get him used to the wagon, and wagon-tongue. Then begin to load with care, and when pulling, give plenty of time, especially when going up a hill.

Always stop him by the word whoa. Do not carry a whip; the whip has produced more balky horses than any other thing used about a horse.

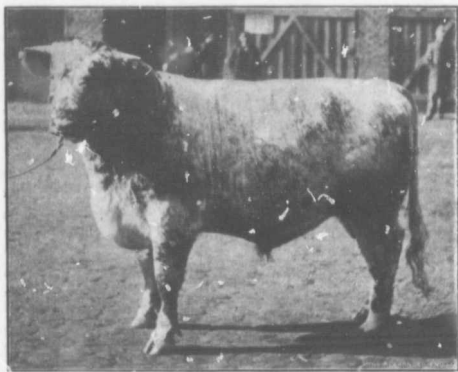
Always teach the horse to go by word of mouth, and the words how to come to left hand, gee to the right. The horse knows as well as a man does, after having been taught, the simple words with which he should be worked.

## ABOUT THE LOAD

Never whip a horse when the wagon has been loaded too heavy for him to draw. Better take the load off and make two of it. The horse will not forget that load. If a horse has to be whipped for a misdemeanor, use a whip or strap, and when the whipping has been done, treat him as usual. He will soon learn to distinguish between good and bad treatment.

## POINTS ON FEED AND CARE

When a long, hard drive is to be made, the horse should not have an increase of feed. Water before being fed. Always drive slow when starting out. Fast driving is inclined to force the food from the stomach before digestion takes place, and sometimes produces colic or other evil effects. When at the end of the journey give the team rest before watering or feeding.—W. H. H. Doane, Stanstead Co., Quebec.



Ceremonious Archer, the 1st prize yearling bull amongst the Shorthorns and the junior champion at Chicago, 1922, is one of the best young bulls in America. He has already won many prizes for his owners, Geo. Harding & Son, Waukesha, Wis.

## The Stocker Trade for Western Ranges

A Comprehensive Review of Conditions Governing It—Practical Pointers for Cattle Raisers

By C. H. Hadwin, British Columbia

The annual trade in stockers purchased in Ontario and Manitoba for the western ranges, is one which should be carefully looked into by the Ontario, Manitoba and Dominion Agricultural Departments, the Farmers' Institute and by the breeders generally.

Anyone who has purchased this class of stock knows the difficulty there is to obtain suitable animals and these in fair condition to travel. On the other hand there are great numbers of unsuitable stock.

In the first place the eastern farmers may be assured of a good demand at fair prices if they raise suitable beef grade stockers and keep them in growing condition. If a whole district can attract buyers by having any considerable number of this class of stock it will experience no difficulty in making sales.

### WHAT THE RANGES DEMAND

The stock should be strong constitutionally, vigorous, wide through the heart, have good big bones and frame, and level back, with well sprung ribs and a good hind quarter. They should be in good growing condition. In color they should be red, red and white and roan or solid black.

This class can be secured with any of the beef breeds—Shorthorns, Hereford or black cattle.

In discussing this, one of the main standbys of the easterner must be considered, that is dairying, so that we have to consider to a certain extent stockers as a side issue, and try and make it profitable from both points of view.

### JERSEYS AND HOLSTEIN.

are essentially dairy cattle, and I consider that it is of little use trying to do anything with this class and would not buy any stock sired by a bull of either of these breeds for the ranges. If, however, a Shorthorn bull were used on good large Holstein grade cows, fairly good steers might be expected, but they would, in all probability, be slab-sided, and their color would be against their selling.

### THE AYRSHIRE GRADE

is better although small, has a fuller quarter and is a better feeder. When a Shorthorn bull is used on fair sized Ayrshire grade cows (and this is a cross recommended for obtaining good large milk cows) the steers will be very fair. This practice could be followed to advantage in the eastern part of Ontario and Quebec. The color of the cross would be satisfactory and better than the Holstein cross by long odds.

### RANCHERS PARTICULAR ABOUT COLOR

In regard to color, the ranchers are particular, as it is a good guide as to the breeding of the cattle. They do not want Jersey colors such as fawn, brindles or black as indicating Jersey stock, black and white as indicating Holstein. They know too well the difficulty in fattening this kind of stock and do not want it at any time.

White is also unpopular. This is in a measure wrong, as a white with a yellow skin is often an ex-

ceptional animal, but a white with a blue skin is generally a bad one and being noticeable will be remembered.

### WHO SHOULD RAISE STOCKERS

Apart from the dairying districts in Ontario, which are more particularly breeding grounds where this trade should be developed, a great deal of North and Northwestern Ontario, where the clearing of the woods has left large tracts of grass and where the land is unsuited for the plow, is eminently suitable for the rearing of cattle to be sold and finished elsewhere. Herefords, Shorthorns and black cattle should be kept and the young stock shipped as calves or yearlings to the west or could be sold as two's for feeding in Western Ontario. The great difficulty experienced by buyers is lack of condition. Stockers are generally wanted in the spring and the calves appear to have just come through a hard winter and are barely able to walk about let alone take a trying railway journey.

A smaller inatter, but one which certainly affects the selling value, is the prevalent ring worm which is easily cured by an application of coal oil.

A little more attention and either the addition of ensilage or roots to the usual dry ration given to the young stock will pay the farmer and keep his stock in saleable condition. I believe that the majority of stockers sold as such do not weigh as much in the spring as they did the fall before.

### TRADE LIMITED IN 1902

The trade in stockers last year has been limited, owing to high prices and abundant crops in Ontario and a demand for feeders in most sections of the western countries, but it may be relied on to continue when conditions are more favorable.

There will always be ranchers in the Northwest Territories and British Columbia ready to increase their stock by hundreds, when prices will allow, and in some cases will rely on so doing instead of breeding.

### THE LONG RAILWAY JOURNEY

to the west is a very trying one, and owing to poor facilities along the line much more so than it should be. Many shipments have been unprofitable through heavy losses on the road owing to bad handling and insufficient feeding. It is reported that the C.P.R. intend to improve their yards and if so it is good news to shippers, as the condition of all the yards with the exception of Winnipeg, are generally in a disgraceful condition and responsible for much suffering and heavy losses.

The cattle trade should be a profitable one to the company and it is not fair to expect shippers to turn stock needing rest into yards six inches to one foot deep in liquid filth, so that instead of resting they have to tramp round in the slush or stand and shiver all

night. Feeding facilities are often poor and very high prices asked for hay. Eighteen dollars per ton is exacted at many of the points. Water is allowed to freeze up, so that 'I have known cases where stock have had to be driven three miles to water. Much more might be said on this question, but it

may be well to caution shippers in charge of stockers for the first time not to spare themselves in attending to stock, especially when watering, to see that all get their share and not too much. When the alkal water is reached it is best to empty the troughs when they have all had a little.

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## Western Breeders' Meetings

Agricultural College Commission—Ontario and British Columbia Apples Compared

By our Western Correspondent

The dates for the annual conventions of the Stockbreeders' Associations have been fixed for February 17-27. These dates include a week of lectures and demonstrations in stockjudging. Commencing on February 17th, the mornings will be occupied with business meetings, and the afternoons and evenings with lectures on subjects relating to the industries represented and introductory to the judging. The dates have been assigned as follows: February 17th, sheep and swine breeders; February 18th, pure bred cattle breeders; February 19th, horse breeders. The dates from the 20th to 27th will be devoted to lectures and demonstrations in judging, morning and afternoon, with evening lectures on related subjects. Horses, light and heavy, February 20th and 21st; sheep and swine, February 23rd and 24th; dairy cattle, February 25th; beef cattle, February 26th and 27th.

The arrangements for lecturers are not yet complete, but Prof. J. H. Grisdale, of the Central Experimental Farm, and Duncan Anderson, of Rugby, Ont., have been secured.

### THE DAIRY ASSOCIATION

The Dairy Association will meet on February 19th to 20th, at the Provincial Dairy School. The business meeting on the evening of the 19th and the 20th will be devoted to lectures and judging and scoring butter. Prizes will be awarded for dairy butter in bricks and in tubs. The services of Professor Haecker, of the Minnesota State Dairy School, have been secured for this occasion.

### BETTER THAN EVER

Last year's conventions marked a first successful step in the effort to make these gatherings what they should be, representative and useful gatherings of the rank and file as well as the leaders in the breeding industry. This year sees another long stride attempted. As to the improvement in their practical utility, there can be no question. The movement to make the programme of the Dairy Association more directly appeal to the mass of the farmers and farmers' wives is the direct outcome of the gradually decreasing interest shown by the creamery and cheese fac-

tory interests in that organization.

Copies of the programmes of these conventions may be secured by addressing George H. Greig, Secretary Stock Breeders' Association, Winnipeg, or Geo. Harcourt, Secretary Dairy Association, Winnipeg.

### A WESTERN AGRICULTURAL COLLEGE

After a prolonged rest, the Agricultural College commissioners held two meetings during the past week. This looks like an effort on their part to get in out of the rain, as the government has definitely announced their intention of establishing a college, and there is every likelihood that an appropriation will be voted for the purpose at the forth-coming session of the Legislature. This recalls the fact that the sum of \$50,000 for the purchase of a college site was voted in 1892, but never expended. All things considered, we are glad that the government has shown a certain independence of the commission. There is a suspicion abroad that there will be more University than Agriculture in the commission's report.

### ONTARIO APPLES A BAD LOT

We have been asked to say a few words about the apples that are reaching us from Eastern Canada—mostly from Ontario. This is a difficult question. We are very jealous of the reputation of our products and know that our friends in Eastern Canada are equally so. But if our No. 1 hard wheat were as inferior an article as the XXX apples we are offered, we should expect to have our customers call us bad names—very bad names, indeed.

When the Act respecting grading and marking apples came into force, we felt that our troubles with apples were at an end. We flattered ourselves, that we should henceforth know what we were buying; that XXX would represent the finest quality of apples, since it is the highest grade recognized by law, and that if we bought poor apples, the blame would be our own. But we are disappointed to learn, from sad experience during the present winter, that XXX frequently means, "Not quite good enough for cider." What depths of meanness X apples can descend to we do not, and wish not, to know.

### B. C. AND U. S. APPLES BETTER

From British Columbia and the State of Washington we are receiving apples packed in forty-pound boxes, which have completely captured the market (or as much of it as they can cover), for fancy apples. They are even in size, free from bruises, scabs and wormholes, and they are true to name. While XXX Ontario Spies are retailing at \$3.50 per barrel, these British Columbia Spies are wholesaling at \$1.75 per box! The former is more or less of a drug on the market, the latter is sought for by both consumer and dealer. It is not worth the while of the Ontario orchardist to pack his scabby culls in boxes and label them, "Choice Dessert Apples." Culls do not sell so well that way as in barrels. But if he has any good apples (there used to be lots of them twenty years ago), and will pack them so that his customers can see that they are the real thing, he will make more by sending them to Western Canada than any system of cold storage will enable him to get in Great Britain.

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### A Dairy Shorthorn

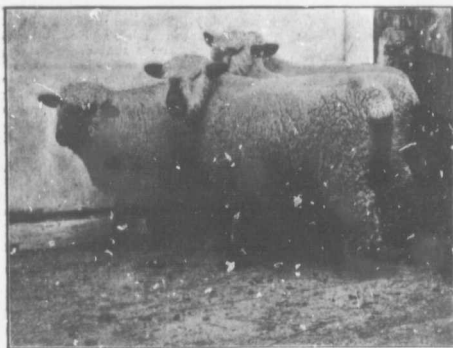
The accompanying engraving is that of Winno, Vol. 18, winner of fourth prize in the Shorthorn class, in the dairy test, Provincial Winter Fair, 1902. In our report of the winners, published recently, a mistake was made in placing this cow fifth. Taking pounds of butter into consideration she stood third in the list and taking the percentage of fat in milk she stood first among the Shorthorns in the test and fifth



among other classes. As will be seen from the engraving she is a good representative of the Shorthorn breed, leaving out all her dairy qualities.

The owner of this cow is Mr. H. C. Graham, Ailsa Craig, Ont., who writes us as follows:

"We are quite satisfied with her rightful place in the prize list, as she was the only cow we had milking when the show came off. Though not exceptional, she is nearing our ideal of the farmer's cow or the dual purpose cow, giving a fairly good quantity (74.125 lbs. of milk in the two days of the test) of good quality (4.3 per cent. fat). She raises calves that are extra good from the butchers' and drovers' standpoint and she will, when past her usefulness as a breeder or in the dairy, bring a fairly high price for beef."



Group of Home-grown Hampshire Down Sheep, winners at Chicago. Owned by Hon. H. M. Cochrane, Hillhurst, Que.

## Marketing the Bacon Hog

Canada's Market; Farmer and Drover Both at Fault—  
How Packers Fix Prices

By F. W. Hodson, Dominion Live Stock Commissioner

In recent years much has been said and written concerning the home and foreign markets for pork and pork products. The desirable pig has been described as a long, lean singer; this definition has led many into error, people supposing from the description that the old razor-back pig was most to be desired. Even some clever American professors have fallen into this error and have gone so far as to select some of these South Western "razor-back pigs" and fatten them for exhibition at Chicago, claiming that they were the type of hogs demanded for the English markets. When these animals were killed it was found that they did not possess desirable carcasses; the lean meat was not of the best quality, and the fat was too abundant in proportion to the lean. The pig required for the English and the best Canadian markets may be described as a long, deep, fleshy singer; that is an animal whose carcass abounds in lean, juicy meat of the best quality, and in which the proportion of fat and lean is properly balanced; a carcass possessing, if possible, a much greater proportion of lean meat than fat.

### THICK FAT PIG

Many discerning men quite properly ask, "Why is it that the thick fat pigs bring higher prices in Chicago and the other American markets than the lean singer, and why is it that there is a greater demand for this type of pig in the American markets than for the lean singer?" It is partly because of the large foreign population in the United States; most of these people prefer the thick, fat pork to that of any other quality. This population, as well as the native

Americans, consume a great deal of lard. Then again it must be remembered that pork in the United States is a by-product, not of the cheese factories and dairy farms, but of the great corn fields of the middle west and southern states. In these portions of the United States large numbers of pigs are reared on the blue grass and clover. They receive little additional feed, which is usually corn, until they are of suitable age to follow the fattening cattle in the corn fields, in the proportion of four pigs to one bullock; the pigs pick up what the cattle break down, and otherwise consume the waste. By this method pork can be sold at a profit of three cents per pound. It is said by some feeders that the cost of production in this way does not exceed two cents per pound, but by this method the thick, fat type of pig is produced, not the pig yielding the finer classes of bacon. Very great quantities of pork and pork products are annually grown in this way.

Careful experiments at the Ontario Agricultural College and elsewhere have shown that with the feeds available in Canada, the bacon type of pigs can be produced by our farmers just as cheaply as the thick, fat type. When we consider these facts we must conclude that Canadians cannot compete in the production of this thick fat pig; neither can the American feeders produce the finer classes of bacon. Even if they could, it is doubtful whether they would be willing to do the necessary work required to produce the Wiltshire and other fine grades. It is more profitable for them and much less laborious to produce the thicker and heavier porks.

### CANADA'S MARKET LIMITED

Therefore it was necessary for Canadian pork packers to look up a market for what Canada is best calculated to produce, and they found this in the market for the Wiltshire side. This is not an unlimited market and may be overdone. Ireland, Denmark and a portion of England cater to this trade, and may be considered as our chief competitors. Canada can only hope to maintain a foothold and perhaps a growing trade on the English markets by furnishing the choicest products. This is a point I should like to emphasize. Every time a Canadian farmer sells to the packer an undesirable hog, he injures this market, but first-class products always bring to us a steadily growing demand. In order to hold this trade our packers must be supplied with hogs of the right quality each day, hogs of uniform quality, long, deep and fleshy.

Although this is the case, buyers will go through the country and pay what is known as level prices, paying the same rate per pound for the wrong as well as the right kind of hog. This is very discouraging to the farmer who is endeavoring to produce the kind of hog the market demands; but the fault in this particular is in many cases with the seller as well as the buyer. If a buyer comes to a farm where there are sixty hogs for sale, forty of which are first class, twenty the farmer knows to be second, either too thin or too thick, too heavy or too light, he may say: "I will give you 6c per pound for the number one pigs, and 4½c for the number two"—It is ten chances to one if the seller does not say, "I must have 6c a pound for the lot or you cannot have the pigs." If the buyer leaves them, the next buyer who comes along will probably pay 5½c or 5¼c for the lot.

### HOW PACKERS DETERMINE PRICE

The farmer, by compelling the drover to buy in this way, is doing an injury to himself and to the trade. The packers overcome this difficulty by buying at a level price and they determine what the price shall be the next week by the quality of the pigs they received the previous week. For instance, when pigs grading No. 1 are selling for 5c, and lower grades for 4c per pound live weight, and 60 per cent. of the offerings rank seconds and lower, the average price paid by drovers would be \$4.40; if 60 per cent. were No. 1 and 40 per cent. No. 2, the average would be \$4.60; if 80 per cent. were No. 1 and 20 per cent. No. 2, and lower, the average price would be \$4.80; a difference between the first and last calculations of 40c per cwt.; not a large amount if calculated on the weight of a few hogs, but an enormous sum when applied to the yearly output of Canada.

Canadian farmers lose at least 20c per hundred on all hogs because of these conditions, packers fixing their buying prices according to their average receipts from sales.



The man who insists on breeding the wrong type of pig, or on feeding improperly, not only loses 20c per hundred himself, but also causes his neighbor to do so as well. Not only this, but he injures the home and foreign trade. Therefore it is to the interest of every citizen that the right sort of hogs be bred on every Canadian farm, and that they be properly fed. Hogs of the wrong type cannot be made good by any kind of feeding, yet bad feeding will spoil a good hog.

A loss of 20c. per hundred on all hogs sold to packers means a total loss to the farmers of Canada of \$300,000 to \$500,000 annually.

Many farmers still cling to the idea that it is more profitable to keep their hogs until they reach a weight of 300 or 350 pounds than to kill at 200 pounds or thereabouts. A study of the following table, compiled by Prof. Henry from a large number of trustworthy experiments, shows the utter fallacy of this idea.

RELATIVE WEIGHT, GAIN, AND FEED CONSUMED BY PIGS.

Weight of pigs in lbs.	Feed eaten daily per 100 lbs. live weight.	Feed for 100 lbs. Gain.
15 to 50 lbs.	5.95 lbs.	293 lbs.
50 to 100 lbs.	4.82 lbs.	400 lbs.
100 to 150 lbs.	3.61 lbs.	437 lbs.
150 to 200 lbs.	3.43 lbs.	482 lbs.
200 to 250 lbs.	2.91 lbs.	498 lbs.
250 to 300 lbs.	2.74 lbs.	511 lbs.
300 to 350 lbs.	2.50 lbs.	553 lbs.

#### Cattle, Sheep and Swine Breeders

As we go to press the Cattle, Sheep and Swine Breeders' Association are in session at the Palmer House, Toronto. There is a good attendance of members, and the reports show these organizations to be in a prosperous condition. The important business brought before the association was a scheme for the extension of trade in the western provinces, and as presented in the report of Secretary Westervelt. This in brief is to advertise and develop a market in the west and elsewhere for Ontario stock. The scheme was accepted by the members and we shall look forward to a great expansion in interprovincial trade in live stock the coming season. Fuller reports of these gatherings will appear next issue.

#### Will Wool be Higher?

This is the question many are asking. While nothing is absolutely certain as to markets all indications point to higher prices next season. Whether Canadian coarse wools will share in this or not remains to be seen.

The factors likely to contribute to higher prices are: small supplies in England, the known shortage in Australia, the strength of the South American market, and the depleted stocks in the United States. It is also expected that the heavy weight season in the finished product will open with an advance. An era of speculation in wools is also in the air.

May the higher prices come and may Canada get a share of them is our plea.

#### The Hog a Money Maker

Twelve years ago we imported from the United States large quantities of hog products for domestic use, and at the same time we started a small export to Great Britain, amounting to \$540,000. We still imported small quantities from the United States, chiefly in British Columbia and the northwest, but our export trade had grown to about \$13,000,000. In Ontario it was of special importance because it worked in so well with the dairy industry. Of the total hog produc-

tion 75 per cent. was exported and only 25 per cent. was used at home therefore the needs of the export trade was a matter of prime importance to every hog producer in the country. The export trade was asking for a lengthy, fleshy hog of 160 to 220 pounds, but preferably from 180 to 200 pounds. Above the 200-pound point the weight usually cost all that could be got out of it. The Yorkshires, Tamworths and Berkshires were the favorite breeds, with a cross preferred.—T. H. Mason, at Experiment-Union.

## At the Ontario Agricultural College

#### Ice Making in Switzerland

By F. C. Harrison, Bacteriologist, O.A.C., Guelph.

The accompanying photograph illustrates the method of icemaking in Switzerland, and the employment of this method might be practicable on certain farms in Canada, where river or lake ice is situated at some distance from the farm or where the water is not of sufficient purity.

As may be seen from the photograph a stout framework is built upon which loose poles are laid and a three quarter inch or inch pipe is erected in the centre of the framework. This pipe should project about a foot above the top of the frame and should be coupled with a lawn sprinkler which revolves when the water is turned on. The water is thus distributed all over the area of the frame, and dripping



from the poles soon forms long icicles. When these are large enough the water is turned off, the icicles knocked down and the ice shovelled into the ice house.

This framework may be built directly over the ice house, or situated on an elevation near it, so that the ice may be shovelled on to an inclined trough placed between the bottom of the frame and the ice-house.

At the suggestion of the writer the Copenhagen Milk Supply Co. erected one of these frames, and now fill their icehouse (200 x 25 x 15 ft.) with ice obtained in the manner described. The method has given satisfaction and is very economical as very little labor is required.

#### The Special Courses.

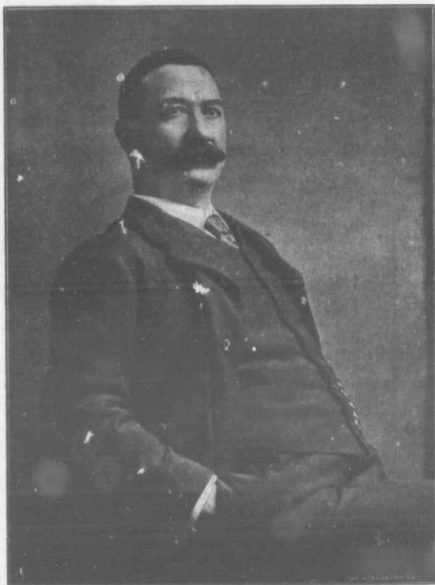
Besides the 225 regular students in attendance at the Ontario Agricultural College, there are now some 50 taking the 12 weeks' dairy course, 12 taking the 12 weeks' course in poultry raising, and about 220 in the two weeks' stock and grain judging class. This latter consists of energetic, bright-looking young farmers from all parts of the Dominion. The first course of this kind was given last winter when the immense number of applications necessitated the making of two courses of 2 weeks each, one succeeding the other, on account of lack of accommodation. However, this difficulty has been overcome by the erection of a fine judging pavilion, with a seating capacity of over 300.

The course opened on the 8th and Professors Reed, Day, Zavitz and Cumming, of the college, have kept the students interested every day since. Each morning an hour is spent in grain judging. Prof. Zavitz lectures on the quality of the different kinds of seed and how and when to sow the different crops. In stock judging they have taken up the important points about the leading breeds of the different classes of animals. Then the students are required to score and place animals of a bunch of one breed. In this way they combine knowledge with practice.

The professors have been ably assisted by many practical men, among them being J. E. Brethour, R. Gibson, Wm. Jones, A. W. Smith, Major Hood and Col. McCrae, who have taken active part throughout the course. The Hon. John Dryden also assisted. On January 13th he gave an excellent lecture on the breeding and management of cattle. He also assisted in judging Shorthorns and discussed the carcasses of three fat steers which had been judged alive on Jan. 12th.—A. J. H.

#### Words of Commendation.

The members of the live stock and grain judging class at the Ontario Agricultural College, before dispersing on Jan. 21, passed a resolution expressing their appreciation of the efforts of the staff in making the course of value and interest to them.



Jas. Connolly, Porter Hill, Ont.  
President of the Dairymen's Association of Western Ontario.

## Dairymen at Brantford

The Dairymen's Association of Western Ontario held its 36th annual convention at Brantford on Jan. 13-15. The attendance of makers was good but there was a woeful scarcity of farmers among those present. Something should certainly be done to take the gospel of good dairying to the farmer or man who supplies the raw material.

The address of the President, Mr. Aaron Wenger, dealt briefly with the work of the year. He commended the work of the Department of Agriculture in establishing a syndicate and hoped this movement would be greatly extended the coming season.

**THE DIRECTORS' REPORT**  
covered the work of the year pretty fully. The dairymen had had a successful year and the quality of cheese greatly improved. The work of instruction during the season had been successful, and especially the Lambton syndicate. The other work of the Association, including the local conventions, had been successful.

Treasurer Hatley's financial statement was a most satisfactory one. The balance from last year was \$1,022.89, and the Government grant of \$4,000, members' fees, etc., made a total receipts of \$5,875.89 for the year. The total expenditure was \$4,416.71, leaving a balance on hand of \$1,459.18.

### INSTRUCTION WORK

Three instructors were employed by the Association during 1902, Messrs. James Morrison, James Bristow and J. F. Millar. The work conducted was similar to that of other years, excepting that less attention was paid to testing milk and more attention given to the maker and the patron. The chief points brought out in these reports are: No progress is being made in the payment for milk according to its quality; factories continue to return the whey to the patrons in the milk cans; the quality of milk supplied during the season was, on the whole, better than in 1901; the quality of the cheese made showed considerable improvement; factory buildings are not being improved as much as they should be.

### PRACTICAL TALKS

A paper on "Alkaline Tests" by S. P. Brown, Birnam, brought out much discussion. This test was in keeping with the advance that is being made in dairy science and should be taken up by makers. It was most accurate and far in advance of the hot iron for testing acidity.

G. G. Publow and G. H. Barr gave two interesting talks on "Cheese Making." Mr. Publow emphasized cleanliness, the value of good buildings and good water

in cheese making. A uniform product was wanted, and the maker should exercise good judgment in all his work.

The first afternoon's session closed with an address by Prof. Harrison of the Ontario Agricultural College on "Injurious Flavors in Cheese." He dealt chiefly with fruity and rancid flavors. The former he attributed to cans of milk standing near trees, where this flavor was communicated to the milk by the spores of the fruit yeast. The rancid flavor was caused by a bacillus whose growth could be prevented by acids. He thought its presence in cheese was due to the acids being washed out of the curd.

### A MUSICAL EVENING

The evening session of January 13th was largely given up to music in the absence of one or two prominent speakers. After the formal welcome by the mayor, interesting addresses were given by D. Derbyshire, president Eastern Dairymen's Association, A. C. Weiland of Montreal, and Major Henry C. Alvord, chief of the Dairy Division, Washington. The last named commented upon the comparatively little attention given to butter-making on the program. He advised the Association to make the butter-making side of dairying more prominent and give it the same attention as is now given to cheese. Butter-making was a better business for the farmer than cheese-making, as it took only a very small amount of fertility from the land. Major Alvord's address proper dealt with the organized agencies in the United States used for the development of dairying, and closed with an interesting account of a visit to the Roquefort cheese-making districts of France.

### THE BIG DAY

Wednesday, Jan. 14th, was the big day of the convention. The sessions were well attended and the addresses and discussions were of an intensely practical character. The meeting opened with the report of the judges on the dairy exhibit, which will be found elsewhere in this issue.

### MAKING GOOD CHEESE

The chief points to be noted in making good cheese as stated by Mr. A. F. Bell of Tavistock, are: Good milk, proper ripeness and acidity, applying the rennet, cutting the curd, heating or cooking the curd, dipping and stirring the curd, milling the curd, salting the curd, putting it in the hoops, curing the cheese, and doing one's best in everything.

In the discussion which followed Mr. McKergow stated that many of the white cheese in Western Ontario are amber in color. A dead white color is better for the English trade.

Mr. J. A. Ruddick, chief of the Dairy Division, Ottawa, read a most valuable paper on the cool curing of cheese, in which he show-

ed that a large amount of money would be saved to the farmers of Canada in less shrinkage and improvement in the quality of the cheese by curing at a cool temperature (below 60 degrees). We have secured a copy of Mr. Ruddick's practical address, which we will publish later.

#### PARAFFINING CHEESE

Mr. Ruddick followed with an address on the value of paraffined and non-paraffined cheese. While there were advantages to be derived from the dipping of cheese into paraffin, he advised makers to go a little slowly till more was known about its effect on the curing of cheese. Prof. Dean coincided with Mr. Ruddick's views on this point. Mr. McKerrigow, who had shipped the cheese paraffined at the cool curing stations, stated that they gave very good satisfaction, there being only one complaint received. There was less shrinkage, one-half pound per box on the paraffined cheese as compared with one and one-half to two pounds on cheese not paraffined. The following table gives the results of Mr. Ruddick's work in paraffining cheese in 1902:

	Cool Curing Room		Uncontrolled Room	
	Waxed	Not Waxed	Waxed	Not Waxed
Date Weighed				
Lot I.				
Sept. 12th	81-0	81-12	81-6	82-0
Oct. 11th	80-12	80-4	79-0	78-12
Shrinkage	0-4	1-8	2-6	3-4
Lot II.				
Sept. 13th	86-0	83-4	83-12	86-4
Oct. 11th	85-14	82-8	82-6	79-14
Shrinkage	0-2	1-12	2-6	3-6

#### A RATHER WARM SESSION

Wednesday afternoon's session opened with an address by G. C. Creelman, superintendent of farmers' institutes. He emphasized the importance of doing something more to reach the patron and commended the syndicate system of instruction as being better adapted than any other for reaching all classes interested in the making of good cheese.

Major Alvord spoke briefly on the advantages of co-operation and emphasized the importance of securing a good raw product.

Things began to warm up considerably during Mr. R. M. Ballantyne's address on the cool curing of cheese. While commending cool curing as being of very great advantage in curing cheese, he condemned the Government's plan of establishing consolidated cool curing stations. He did not think factories would ever unite and build joint curing stations and advised the shipping of cheese a few days after they were made into cold storage warehouses.

Professor Robertson replied to Mr. Ballantyne's statements and stated that the main object of the cool curing stations was to demonstrate to the dairymen the advantages of curing cheese at a lower temperature. In this they had

been most effective, and if they did nothing more, would more than repay for the public money invested. He contended that cool curing and cold storage were two entirely different things and because cheese cured well in one it did not follow that it would do as well in the other.

#### WORK AMONG PATRONS

A most instructive talk was given by Mr. C. H. Barr on the work accomplished by the Lambton syndicate. He had had 15 factories to look after. The main defects in buildings and equipment were bad floors, leaky vats and filthy curd sinks. Cement floors were better than wooden ones. Unless kept perfectly clean he would advise doing away with curd sinks and racks entirely and using the vats for working the curd in.

There were only two well insulated curing-rooms in the lot and in these the cheese cured well. He induced the makers to agree not to take in milk rejected by a neighboring factory. This had a most wholesome effect in securing a better quality of milk. He recommended the use of the alkaline and curd tests.

He had held a number of meetings of patrons during the summer which had resulted in much good. There was a marked improvement in the finish of the cheese and of the quality, as a result of the work. Grouping the factories was the best plan for improving the quality. Patrons, because of the former work of instructors in prosecuting for tampering with milk, had a wrong impression of what his duties were. By explaining that he was there to help and not to injure them he gained their confidence and effected a very great improvement in the quality of the milk supplied.

#### MODERN TESTS IN CHEESE-MAKING

Prof. H. H. Dean of the Ontario Agricultural College, in an interesting address on this topic, referred to the research after truth in dairy matters. Work along this line had effected great advance in many ways. The rennet test measures the susceptibility of milk to rennet, but does not necessarily measure the acidity. The advantage of the acidimeter over the rennet test is that the exact condition of the acid is known from the beginning. It was quicker, took less milk and was more correct. The advantages over the hot iron test are: Exactness, less danger of getting too much acid and greater uniformity in cheese.

Prof. Robertson closed the afternoon session with a criticism of the forenoon session.

#### TRANSPORTATION OF DAIRY PRODUCTS

Wednesday evening's session was an interesting one. After short addresses by C. B. Heyd, M.P., and G. H. Preston, M.P.F., Prof. Robertson followed with an address on the transportation of dairy products. Cold storage or cool

curing will not do everything. The product must be properly boxed and handled in transit. Twenty-six out of the 250 steamers sailing from Montreal last year had cold storage facilities for carrying cheese. This number would be increased this season. Care should be taken to have all refrigerator cars on the railways properly iced. One hundred cars per week were arranged for by the Department of Agriculture. The insulated cars were the coming ones. There were ten steamers kept under 50 degrees, one half the cost of which was paid by the Department. He emphasized the need of better cold storage facilities at creameries and stated that he would the coming season ask the railways to keep all butter out of refrigerator cars if it was not down to 40 degrees when brought to the shipping point.

Referring to remarkable development of the dairy industry, he stated that in 1892 the exports of butter from Montreal were 32,000 packages, as compared with 523,000 packages in 1902. As showing how Quebec was coming to the front he stated that during the past ten years Quebec had increased the value of her dairy products by \$9,243,000 as compared with an increase in Ontario of only \$7,136,000.

#### AS BIG AS HIMSELF

An interesting feature of the evening was the presentation of the challenge trophy in the cheese competition to the fortunate winner, Mr. Frank Boyes, Kingsmill, Ont. This trophy was contributed to the Association by the cheese buyers of Western Ontario, to be competed for at the winter dairy exhibition which has now become an annual feature of the convention. It has to be won twice in succession or three times in all before becoming the property of the winner.

The session closed with a stirring address by C. C. James, Deputy Minister of Agriculture, Toronto. He emphasized the need of doing more to help the women on the farms.

#### BUTTERMAKERS' DAY

Arch. Smith, Superintendent Western Dairy School, opened Thursday morning's session with an address on the cream gathering system, and the conditions governing it. The introduction of the hand separator had worked a great improvement. He conducted some experiments at the Aytton factory last summer which showed that the quality of the product would be greatly improved by pasteurizing the sour cream and churning it when sufficiently cool. A temperature of 178 to 185 degrees gave best results. There were better results from rich than thin cream. Get pasteurizer much larger than needed, so as to keep up temperature longer.

There must be a new method of gathering the cream. Have a separate can for each patron. This would enable the maker to identify



Aaron Wenger, Ayton, Ont.  
Hon. Vice-President Western Dairymen's Assoc.

each patron's cream. The equipment at most of the creameries was not what it should be. The old style wide vats were used. Of the 60 creameries visited only 6 or 8 had storages suitable to hold butter more than one week. The makers were not as up-to-date as they should be.

A good discussion followed, turning largely upon the advantages of the cream gathering and separator creameries.

Wm. Waddell, Butter Inspector Guelph Dairy School, followed with an address on the separator creamery. Must have better milk, better storage facilities and sell often. Everything about the creamery should be so managed as to economize in the management. Patrons should co-operate in hauling milk.

The discussion on this paper turned largely on the handling of the skim milk. The aim should be to deliver the skim milk sweet to the patrons, as it had more feeding value than sour milk, especially for young calves.

#### EXPORT BUTTER

Prof. Dean took up this side of the question. The patron and the manufacturer must both be considered. For a creamery a cow giving rich milk was the most profitable cow; ensilage, lucerne and red clover were good winter feeds for dairy cows. Lucerne was the cheapest and most economical feed that could be grown for dairy cows. A little meal should be fed also, say eight pounds of meal for every pound of butter made. A good combination is three pounds of bran, four pounds of oats and one of oil cake. Roots are also valuable. There is not enough attention given to the skim milk by the average separator creamery. In the care of cream for the cream gathering creamery, it should be cooled to below 50 degrees as soon as possible after separating. Don't put warm cream with cold cream.

The manufacturer must look after the quality. Testing cream

with the Babcock test is more accurate than the oil test churn. Pasteurizing is of importance, especially in winter. Some experimental shipments of prints had been made from the College direct to the old country with fairly good results, especially for pound prints.

#### THE CLOSING

The last afternoon's session was a short one. Brief addresses were given by G. H. Barr, Wm. Wright of the British Linde Refrigeration Co., and D. Derbyshire. Resolutions were passed showing appreciation for the services of Instructor Morrison, who is leaving the Association, and strongly recommending the appointment of a railway commission.

The officers for 1903 are: Honorary President, Hon. Thos. Ballantyne; Honorary Vice-President, Aaron Wenger, Ayton; President, Jas. Connolly, Porter Hill; First Vice, J. N. Paget, Canboro; Second Vice, Robt. Johnston, St. Thomas; Third Vice, T. B. Millar, London; Districts: No. 7, John McQuaker, Owen Sound; No. 8, Harold Eagle, Attercliffe Station; No. 9, John H. Scott, Culloden; No. 10, Thos. Ballantyne, Jr., Stratford; No. 11, W. K. McLeod,



Geo. Hately, Brantford, Ont.  
Secretary Western Dairymen's Association.

Vanneck; No. 12, I. W. Steinhoff, Stratford; No. 13, A. F. McLaren, M.P., Stratford.

Mr. John Brodie, London, replaces Mr. J. R. Isaac as representative on the Western Fair Board. The other representatives are the same as last year.



## Kingston Dairy School Convention

A large and enthusiastic one-day convention was held at the Kingston Dairy School on Jan. 22nd.

During the morning session Superintendent Hart presided, and J. W. Mitchell, manager of the Clarified Milk Company, Kingston, made a stirring address in which he urged the cheese and butter makers to cordially co-operate with their patrons in furthering their mutual interests.

Mr. J. A. Ruddick spoke in regard to the cool curing of cheese along the same lines as previously reported in the proceedings of the dairymen's meetings at Ottawa and Brantford. He recommended a temperature for curing cheese between 55 and 60 degrees as the best. He recommended ice as a cooling agent and emphasized the value of cement floors in curing rooms.

A number of interesting addresses were made by prominent dairymen present.

At the afternoon session E. J. B. Pense, M.P.P., presided and asked Mr. G. G. Publowl, instructor in cheese-making at the school, to explain the changes proposed in the system of giving instruction in the factories.

D. Derbyshire spoke on the necessity of enlarging the dairy school. More accommodation

must be provided for the large classes in attendance. Patrons of factories were vitally interested in getting the most skilled men to take charge of the factories and the school should be in a position to

thoroughly drill these men in the art of making the finest cheese.

In the evening the chair was taken by D. D. Rogers, ex-M.P. E. J. B. Pense, M.P.P., spoke about the generous way in which the Government had supported the Mining School and claimed that the Dairy School, so directly connected with our great national industry, should be dealt with in a liberal manner.

Supt. Creelman gave an interesting address and showed plainly how much better the opportunities were for young and ambitious men along the different lines of agricultural work, than in the so-called learned professions.

Hon. John Dryden presented the certificates to the students of the school who last year passed all the examinations in the "Long Course," and who by their summer's work indicated that they were thoroughly skilled as cheese or butter makers. Dairying was an important branch of our agriculture, yielding \$30,000,000 a year on account of dairy products exported. When you take out the cost of producing this the balance is added wealth to the country. In agricultural investment we have reached the billion dollar mark. Skill is needed to produce the best dairy products. The students at the school require special information, then they need skill to use the information they have. The cheese-maker must be neat and the necessity of cleanliness was strongly impressed. If the dairy schools are worth any-

thing and are doing anything to enhance the value of our dairy products, the country should be willing to recognize their merits. Canadians should realize that they are natives of a great country. He believed in this Dominion with all his heart. He hoped the day would come when the foreigner on seeing the word "Canadian" on a box of apples or cheese or butter would know that the contents were the very best that could be produced.

Mr. Ruddick gave a short illustrated address on New Zealand.

The interest in the convention was sustained throughout and many prominent dairymen from Eastern

Ontario were present. A number of the patrons of the dairy school and surrounding cheese factories attended the meetings, but it was also noticed that a number who should have been present, in fact those who needed the instruction the most, were conspicuous by their absence. How to reach these indifferent patrons is a great problem and it is hoped that the change in the system of giving instruction to the patrons may afford opportunity to the instructors to visit them in their homes and get them more interested in all that pertains to the up-building of the great dairy industry throughout Canada.



## In and About Quebec

### Institute Meetings.—Too Many Dairy Boards.—Pointers for Dairy Farmers

The Institute meetings arranged by the Council of Agriculture, from January 6th to 21st, were very successful. Good attendances were the rule, and many interesting discussions arose. The speakers had quite a lot of territory to cover, and were kept busy.

The speakers were: C. W. Nash, Toronto; Robt. Thompson, St. Catharines; R. F. Holtermann, Brantford; Robt. Ness, Howick, Que, and Major James Sheppard, Queenston, Ont.

#### TOO MANY SMALL DAIRY BOARDS

The Eastern Townships Dairymen's Board held its annual meeting for the election of directors and officers for the coming season at Cowansville, on January 10th. A lively discussion arose over the starting up of small Boards in the district, but it seemed the general opinion that these would not be of a lasting nature. Mr. Boright argued that all the members of the Cowansville board had to do was to keep the good name of the board by fair dealing, doing the best they could to continue that confidence which farmers already had. This being done, all would be well and the farmers from a great deal wider area would patronize the board.

Mr. H. Foster, the president, stated that, though he had been congratulated on all sides on the splendid butter showing made by the board, which was, of course, highly gratifying, still he thought it hard that after all the work that had been done, a number of small boards should rise up in the district to the detriment of the former. Common sense must dictate that where there is concentration, there will be better prices, and he begged of the members to make a united effort to get more put on the board. He was anxious to widen the sphere of their work and he was trying to get the co-operation of the St. Francis district.

Hon. J. C. McCorkill, M.L.C.,

said: I am interested as a diarman in the Board of Cowansville, and it is absurd for the farmers to think of establishing boards in different small places. The more we concentrate our sales, the higher prices we shall get, and we ought to combine. Of course, he could quite understand a go-ahead tradesman advocating the advantages of a board in his village, but this was not to say it was in the interests of the farmers.

Messrs. T. L. Burnett, Lawrence, J. Odell, and others, spoke along the same line, strongly advising a concentration of effort, as being in the best interests of the farmers.

The following were elected for the coming season: Directors—Messrs. H. S. Foster, Spencer, Lawrence, F. H. Williams, Thomas Burnett, Loftus Smith, W. Lynch, Boright, H. Beatty and E. Buzzell. Officers—H. S. Foster, President; E. Spencer, Vice-President; Mr. Stinchour, Secretary-Treasurer; Mr. F. H. Williams, Auditor; Mr. Barker, Assistant Secretary; Hon. J. C. McCorkill, Legal Adviser to Board. Committee on Transportation—Messrs. F. H. Williams, Brice, Spencer, H. S. Foster, Odell, Lynch and Hon. J. C. McCorkill.

#### SOME GOOD PRACTICAL TALKS

At Compton, January 12th, a local farmers' meeting was held. A very interesting and profitable two and a half hours was spent over several good papers, read by local farmers, and in subsequent discussion. The papers were all well prepared, and not lacking in humor and proved conclusively what a fund of instruction can be gathered from the practical remarks of plain, but experienced, farmers, men who state facts, not fancies, and who have proved for themselves what they are willing to advance in public.

Mr. Manson, as chairman, pointed out how hungry the dairymen and stock breeders were for information and mutual exchange of experiences.

#### SMALL CREAMERIES A DRAWBACK

Mr. Wm. Johnston, Mapleton Farm, in an able paper on general farming, called his fellow-dairymen to task for the disgraceful condition of the cow stables throughout the township. It was a wonder to him how any decent butter was turned out by the creameries during the winter months. There seemed to be too many small creameries, all eager to obtain milk, regardless of quality, and it was scandalous for these to be allowed to accept milk, which had been refused at some other creamery on account of taint or some other defect. He was firmly convinced of the need of licensing the factories and the necessity of having the butter graded. More attention should be paid to the calves and the practice of using scrub bulls with the one idea of renewing the milk supply was strongly denounced. Good two-year-olds cost less to raise per pound than poor ones, and whereas the cattle-buyers usually were offering 2 to 4 cents per pound for the common run of steers, by the intelligent use of well-bred sires it would be easy to command 5 to 6 cents per pound. The speaker emphasized the necessity of looking well after the side lines of the dairy business, and not neglecting the calves. He recommended dairymen to choose either one of the recognized leading dairy breeds, or else go in for a good, general-purpose breed like the dairy Shorthorn.

The average cost of growing 100 pounds of pork was excessive. Mr. Johnston stated that he hoped to improve his results along this line by making more use of green clover for his growing pigs. Too many of the wrong type of hog were raised around Compton, and the Tamworth-Berkshire cross was advocated. It was his opinion that by soiling, two cows could be kept where one was at present.

#### MUD AND HORSE MANURE

The present system of road-making was strongly condemned. Our roads were being made with the same material that was used 50 years ago, namely, mud and horse manure, whilst the greater travel of the present day necessitated something better.

When asked his opinion of stone crushers, Mr. Johnston replied, that in Scotland crushers were brought into use, but were only used for a few years, because they did not produce such good road-making material as hand-broken stone. The drawback to crushers was, in his estimation, their producing three grades of material, which, unless a road were being built from the foundation up, was not desirable, as only one good grade was required for macadamizing.

#### TURNIP GROWING

Mr. Edwards stated that he had proved to his satisfaction that 50 pounds of bran was of more value fed to dairy cows than 20 bushels



of turnips, and whereas a ton of bran only cost about \$18, 800 bushels of turnips would cost about \$30 to raise. Besides, more fertility was restored to the soil by feeding the bran than by feeding the turnips.

Mr. Mavor gave a very practical and instructive talk on raising turnips. He thought Mr. Edwards had been very extravagant in raising 800 bushels for \$30. Two thousand four hundred bushels should be grown for that money. To grow turnips profitably, the work must be very thoroughly understood. A man should be able to thin one acre of turnips a day, and pull three-quarters of an acre. He would guarantee that he and Mr. Johnston (both Scotchmen) would thin out an acre of turnips in less time than nine or ten of the gentlemen present were in the habit of doing. The work that his neighbor had been in the habit of hiring five or six men to do, Mr. Mavor said, he had been in the habit of doing alone with his son. "In Quebec," said Mr. Mavor, "when cattle are sold and turned out of the stable, one has to run his legs off to keep them in hand, whereas in Scotland, the difficulty is to get them to the station or market on account of the beef on them."

THE HAND SEPARATOR  
was the subject of a paper by H.

Weston Parry, of the Compton Model Farm. If creameries were to arrange for the hauling of the milk and were to adopt pasteurization, there would be no call for the hand-separator outside the private dairy. A creamery and one hundred separators cost about \$10,500, whereas a creamery alone would only cost about \$3,500, and if conducted on the co-operative plan, a good dividend might also be realized each year. Cream-testing was explained thoroughly, and Mr. Parry stated that it was his intention during the coming season to test the cream daily, the test being made the day after the sample was taken, so as to give the air time to escape. He was of the opinion that our export butter would suffer in quality, as had been the case in Australia, and that in order to keep it up to the mark, we must adopt pasteurization, and have our export butter graded by an expert. To obtain the best results under such conditions, it might be advisable to only grade butter which came up to the standard of "firsts," as such which was made from pasteurized milk or cream.

A very interesting discussion followed, during which the opinion was freely expressed that the interests of our Dairy Industry demanded the grading of our export butter.

H. Weston Parry.  
Compton Co., Jan. 15, 1903.

to remain at their present level for some time to come. Canadian curers have not failed to take advantage of their opportunity for their brands have been prominent on the market of late and have shared in the increased rates. The top quotation in London now for Canadian, is \$13.20 per cwt., while secondary qualities change hands at prices ranging from \$11.50 to \$12.50. These prices are considerably below those prevalent last September, but it is not expected that prices will go much lower. It may be interesting to record that over 60,000 cwt. more of bacon came from Canada in 1902 as compared with 1901. It is quite obvious, then, that every advantage has been taken to place Canadian bacon on the English market. Hams have only met a moderate sale, but American hams have advanced in price.

#### BUTTER AND CHEESE

Imports of Canadian butter have now virtually closed for the season, but present quotations are, \$25 to \$25.75 for best qualities, while secondaries are sold at \$21 to \$23.

Cheese is in keen request, and Canadian and States is firm in price and it is not unlikely that a rise of 50 cents to 75 cents per 112 pounds will take place shortly. Primest quality, either colored or white, has been sold at \$14.65 to \$14.90 per cwt., while holders are now asking 25 cents more than the above rates.

In the egg market a large business is doing in lower-priced grades. Canadian glycerined are worth about \$2.

#### THE WHEAT TRADE

has been dull, but prices have remained firm since my last despatch. English wheat is much out of condition and has to be heavily mixed with hard American sorts before being milled. New Manitoba wheat is fetching good prices, quotations ranging from \$7.70 to \$7.90 per quarter of 496 pounds, at which level California, also, stands. Canadian oats are quoted at \$4.10 to \$4.55 per 320 pounds, while white Canadian peas find purchasers at \$8.65 to \$8.90 per 504 pounds.

British millers have had a better year than for some time past for the total output of home mills has for the first time exceeded thirty million sacks of flour, to produce which, however, over nineteen millions of foreign wheat were necessary. This is generally traced to the slight duty put on flour by the last budget. It is worth noting, however, that the cost to the consumer has not increased, the producer having to make good the deficiency. Business in flour during the past month has been dull, for not only have the holidays been against trade, but the exceptionally mild weather has also had a depressing effect. Wintery conditions will instill a little life into the markets and prices will no doubt increase. Canadian flour in London just now is worth \$5.75 to

## Canadian Produce in England

Improved Prospects—Low Values a Thing of the Past—  
More Money to Buy

By our Regular Correspondent

London, January 8th, 1903.

Now that the festive season is a thing of the past, business is once again settling down. The outlook at present is certainly a better one for the producer. Prices in England are distinctly on the upgrade and it would seem that the very low range of values recorded during recent years are a thing of the past. This increase in price is not confined to any particular class of produce; meat of all sorts is dearer, while poultry this year has gone off much better, owing to the curtailed supplies of beef. Perhaps the only exception to this general advance is in the case of wheat and flour and other of the cereal crops, which only with difficulty find purchasers at current rates. It will be seen, then, that Canadian produce will come in for its share in the increased prosperity. There have been a number of alarmist reports in the newspapers about the large number of unemployed, but the facts have been considerably overstated and it may be taken for granted that there is plenty of money in the country.

THE MEAT MARKETS  
afford fairly cheerful reading for the producer. Beef has fallen back in

price since Christmas, but this has more than been balanced by the increase recorded in mutton, which is generally ascribed to the scarcity of frozen mutton of the best grades. At Birkenhead the Canadian cattle arriving compare favorably with previous consignments, although the quality, generally, does not reach the standard attained by those from the States. Small Canadians of the best quality make from 86 cents to 90 cents per stone of 8 pounds, while secondary qualities are worth from 76 cents to 84 cents. It may be taken as a rule that States cattle top these prices by from 4 to 6 cents. Sheep are firm and the demand is good for all descriptions, Canadians are worth from 86 cents to \$1.05. The arrivals at Deptford have been so small this week that quotations would be valueless and misleading.

#### OUTLOOK FOR BACON GOOD

Bacon producers have had a good year. Prices have been sufficiently high to leave a fair margin of profit, and there is no present likelihood of any contraction in the demand or values setting in. Hogs are scarce on both sides of the Atlantic, and prices are pretty sure

\$6.10 per sack, while Canadian oatmeal is in good request and sellers have no difficulty in making from \$48 to \$53 per ton. For the sake of comparison, Scotch oatmeal is, at present, selling from \$67 to \$72 per ton.

Belgium is a fairly good customer of the Canadian and States farmer, for this little kingdom produces only about two-fifths of the grain necessary to feed its population. Wheat is admitted free of duty, but flour is charged two francs (about 40 cents) per cental of 100 pounds. The American continent is the principal source of the imports the other competitors being Russia and Roumania.

#### THE APPLE SEASON

is now rapidly drawing to a close. Canadian and American are somewhat lower in price, the fruit in many cases being very queer. Heavy arrivals of common fruit is the verdict of the American fruit brokers in so far as it concerns barrel apples. The mild weather experienced is having a bad effect on Canadian apples, as many of the lots sold by auction this week testify. The bad condition of many of the lots will end in a loss to those who have kept them on hand so long. Apples, or for that matter, any fruit, coming from cold stores into the warm conditions that now prevail atmospherically, are bound to rot and that at a great pace. Nova Scotian Baldwin's are quoted from \$3.60 to \$4.55 per barrel, according to quality. Golden Russets range from \$4.10 to \$4.45 per barrel. Blenheims from \$5.50 to \$5.75 per barrel and Spy's from \$3.35 to \$3.85. Newton Pippins in 40 pound boxes are making from \$2.40 to \$3.10.

#### CONTINENTAL GROWERS ALARMED

The keen competition engendered by Canadian fruit has rather alarmed the continental growers, for the French Consul at Liverpool has lately drawn the attention of his countrymen to the effect of the Canadian Fruit Marks Act, and the vigorous inspection of Canadian fruit. The report goes to say that the recent establishment of a new service of fast steamers will give an impetus to exports from Canada, which may work to the detriment of French growers, and, therefore, it behooves the latter to further improve the quality and beauty of their fruit. This is undoubtedly a matter for congratulation and shows the position Canadian produce is taking in the British markets.

#### The Winter Dairy Show

The judges in the Winter Dairy Exhibit at Brantford were: Mr. McKergow, of Montreal; J. B. Muir, Ingersoll, and J. A. Ruddick, Ottawa. They reported the September cheese to be somewhat disappointing, having a variety of flavors. Many samples were badly "off" and had a "fruity" flavor. Some were fine in texture and qua-

lity. The finish was good, though there was an absence of cap cloths.

The batter was excellent, especially the packages. On many poor parchment paper had been used. It will pay to use two thicknesses of parchment paper on each package. The print butter was inclined to be soft, spongy and of poor flavor. A few lots were very nice.

The winners are as follows:

#### CHEESE

White Septembers—1, Frank Boyes, Kingsmill (winner of trophy); 2, R. H. Green, Trowbridge; 3, A. T. Bell, Tavistock.

Colored Septembers—1, R. Cuddie, Woodstock; 2, J. H. Travis, Burgoyne; 3, John Francis, Eden.

White Octobers—1, Miss M. Morrison, Newry; 2, W. A. Bell, Pine River; 3, Frank Travis, Courtland.

Colored Octobers—1, S. P. Brown, Birnam; 2, John Francis; 3, Frank Travis.

#### CREAMERY BUTTER

Fifty-six Pound Box—1, Wm. Waddell, Kerwood; 2, R. Cuddie, Woodstock; 3, A. C. McEwan, Geringville.

Ten Pound Prints—1, Andrew Riddel, Hickson; 2, E. M. Johnston, Innerkip; 3, J. R. A. Lang, Avonbank.

#### Building Concrete Walls

There are two styles of building concrete dwellings. The first is that of making a solid wall 10 or 12 inches thick, using cement, gravel, and stone, in the proportions of 1 to 6 up to 1 to 12, depending on the grade of gravel used and also on the strength of wall required and the quantity of stone used.

Strips of wood may be used at intervals in the wall on the inside, if lath and plastering are to be used. These strips need not be heavier than  $\frac{1}{2}$  x 2 inch. I know of two concrete cottages that are plastered with cement mortar on the inside of walls for a finish

and are giving satisfaction, but a space in any wall is advisable.

The outside finish is put on after the walls have been thoroughly watered and 1 part cement to 2 of clean, coarse sand floated over and jointed in the green mortar in blocks of any desired size and shape. If grey sand is used the effect will be similar to the dressed quar v stone. There are a number of formulas used for coloring the mortar.

Another way of finishing the outside of a solid wall is to have designs on the outside building form so that the impression is made in the wall as it is being built. Mr. M. Knight of Bradford is a practical man and built himself a very neat concrete dwelling of this style with natural hardwood inside finish, costing \$1,400. This is cheaper than stone, brick or wood. His foundation and back walls, also the wall facing the verandah and balcony, are finished as first described.

The other style is to mould either solid or hollow concrete blocks and the face of the block can be of any design to suit the builders, and may be left natural or colored. Clean, coarse sand and three or four times the quantity of cement, will be needed where sand is used instead of gravel, but this will be necessary to bring out the corners and finer parts of the figures in the design.—All. Brown, Picton County.

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**The Babcock Tester**

To determine its quality it will require nearly 4 gallons of milk which tests 3 per cent. butter fat to produce 1 pound of butter; it will require but a little over 2 gallons of milk to make 1 pound of butter when the milk tests 5 per cent. butter fat. The live dairyman will know these facts; they hold the secret of success. The evils that tend to destroy the profits can be met easily if one but sets about to do so.—H. W. Winchester.

**Canada Scores Again**

At the Chicago show a prize of \$400 was given by the International Stock Food Co., for the heaviest sheep. This prize was won by J. H. E. Patrick, Ilderton, Ont., with a Lincoln ram, weighing 445 pounds. The next heaviest sheep, which was also a Lincoln, was 408 pounds and is owned by John T. Gibson, Denfield, Ont.

Here again Canada scores and carries off first money.

**Growing Willows**

Farmers having a little low ground can turn it to good account by planting willows for basket-making purposes. It often happens that men have started on a small scale and found it sufficiently profitable to grow them on a large scale. An earth dam is all that is necessary usually, to back up the water and very little work is required in comparison with some other crops. The management and details, however, must be carefully studied in order to make saleable canes.

**Canadian Cattle Improving**

In the Mark Lane Express some figures are given regarding the Deptford foreign cattle trade that are of interest to Canadians. For the year ending Dec. 10, 1902, the total received were 134,100 head, as against 151,000 for the corresponding period last year. These receipts came entirely from the United States and Canada, the former contributing 132,000, and the latter 12,100. The decline was in United States shipments, while the number sent from Canada was 1,000 head greater than in 1901.

The United States prices varied from 11.3 to 17 cents per lb. in 1902, as against 11.3 to 14.5 cents in 1901; and Canadian from 10.3 to 16.7 cents in 1902, as against 9.9 to 13.5 cents in 1901. While the highest advance made by the United States was 2½ cents, the highest made by Canada was 3.2 cents.

These figures are somewhat encouraging and indicate a gradual improvement in the quality of Canadian cattle exported in 1902. There should be no lessening of effort towards improving the quality of our cattle. Now that we have begun to advance we should keep at it till our cattle bring as high a price in the British market as do cattle from the United States.

## EASTERN ONTARIO Live Stock and Poultry Show OTTAWA

February 10th to 13th, 1903

**LIBERAL PRIZES** for Cattle, Sheep, Swine, Live Poultry and Dressed Poultry.

**PRACTICAL LECTURES** on Live Stock subjects. Programmes on application.

**SINGLE FARE** passenger rates.

**Provincial Auction Sale of Pure-Bred Stock, OTTAWA, Wednesday, February 11th, 1903.**

**Provincial Auction Sale of Pure Bred Stock, GUELPH, Wednesday, February 25th, 1903.**

**A. W. SMITH,**  
Maple Lodge,  
President

**A. P. WESTERVELT,**  
Toronto,  
Secretary.

**PAN-AMERICAN EXPOSITION**  
BUFFALO-NEW YORK A-D-1901



The Directors, on the recommendation of the Jury, confer their award of

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for *Centrifugal Cream Separators*

*John De Laval* *John De Laval*  
*John De Laval* *John De Laval*

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## In the Maritime Provinces

### Agriculture in P. E. I.

According to bulletin XI, recently issued by the census commissioner at Ottawa, Prince Edward Island contains 1,397,991 acres, of which 85.44 per cent. is occupied as farms and lots devoted to agriculture. The average size of lots is 1.56 acres, and of farms 90.74 acres. The land owned is 97.23 per cent., and the land leased or rented 2.77 per cent. of the whole area occupied as farms, while of the small area occupied as lots, 84.52 per cent. is owned and 15.48 per cent. leased or rented. Of the farms, 60.76 per cent. is improved and 39.24 per cent. unimproved. The total value of farm property is \$30,434,089, and of this sum land represents 49.78 per cent., buildings 25.76 per cent., implements and machinery 8.00 per cent., and live stock 15.86 per cent.

The average value of horses on farms per head is \$63.64, milch cows 22.04, other horned cattle, 10.63, sheep 3.06 and swine 7.40. The rent value of leased farms is 95 cents per acre, and the rate of wages for farm labor, 3.68 per week, including board. The average yield of spring wheat in 1900 was 17.45 bushels as against 13.72 in 1890; of oats, 27.73, as against 19.1; of potatoes, 149.30, as against 162.50; hay, .92 tons, as against .88 in 1890. During the

decade the number of sheep and cattle slaughtered for export decreased, while swine and poultry increased.

### New Brunswick Dairy School

The Provincial Dairy School will open at Sussex, N.B., early in March. The creamery course begins March 3 and closes March 20, and the course in cheese-making on March 24, closing April 16, 1903. Theoretical and practical instruction is given in both these courses, which will be of very great value to every maker. Teaching will be free to all students from Maritime Provinces. Applications should be sent at least ten days previous to the opening of the course, to Harvey Mitchell, Superintendent, Sussex, N.B.

### Prince Edward Island Prices

The market here has been well attended of late. Prime dressed beef is selling at \$5 to \$6 per cwt., potatoes at 25c to 27c, a bushel, oats 33c. to 34c., and hay at \$12 to \$13 per ton. There is little produce offering. Butter sells at 22c to 23c., chickens 50c a pair, eggs 20c. to 22c. Pulletts are commencing to lay well and business is fairly good. Lobster fishers are busy preparing for the coming fishing season.

On Jan. 9 over 200 hogs were shipped from St. Peters to the

minion Packing Co. at Charlottetown, making a total of 1,150 since Nov. 5. The price paid was 6c. live weight. Dressed hogs are selling at from 7c to 7½c per lb. The Dominion Packing Co. want to buy three times as many hogs as are now on the island. It is estimated that there are now about 40,000 hogs raised annually. The company is offering to guarantee 6c a pound all the year round. This should encourage farmers to greatly increase their supply this year.

A. R.

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THEO. NOEL, Geologist,

Dept. A.R., 101 YORK ST., TORONTO, ONT.



Fruit Display at Walkerton Convention

## Orchard and Garden

### Another Apple Packer Fined

Inspector McNeill of the Fruit Division, Ottawa, had A. K. Hodgins, Parkhill, Ont., fined for improper marking of apples. Hodgins had shipped apples to Nelson, B. C., Winnipeg, Montreal and Glasgow, Scotland, and the inspectors at each of these places reported the fruit to be improperly packed. A minimum fine was imposed, as it seemed that the breach of the law was due more to neglect of careful oversight than to willful intention.

The Fruit Marks Act has had a most wholesome effect upon the fruit trade. The report of the Montreal inspectors shows that out of 300 packages the fruit of only six was found improperly packed. So well is the Act working that a few days ago the fruit-ers of Cardiff asked that the same law be enacted in the United States.

### The 1902 Tomato Crop

1902 has been looked upon as a short year for tomatoes, but when the totals are summed up the shrinkage is not so great. The pack in Canada was 212,000 cases of 2 dozen tins each, against 250,000 cases in 1901. The United States, however, show a total of 9,282,812 cans for 1902 as against 4,268,221 cases in 1901, or more than twice the quantity. The total of tomatoes packed on this continent is over twice that of 1901.

These figures are from estimates made by the American Grower.

### Soil for Hot House Tomatoes

A good soil for forced tomatoes is made of one-half rich garden loam and one-half rotted compost which have been derived from the rotting of manure, straw, corn stalks, etc., until they have entirely lost their fibrous character.

The compost makes the mixture light in texture and very rich in composition. Water passed through it keeps it loose and open during growing time. Tomatoes do best in a very rich mellow soil and if properly managed will fruit abundantly under glass. There is a prevalent idea that tomatoes under

glass require a comparatively poor soil. This is probably due to the fact that the plants are usually not checked before planting, and therefore in a poor soil they sooner exhaust the readily available plant food. Where such a compost as the one described cannot be obtained, a mixture of rich garden loam with one-fourth well rotted manure will furnish suitable soil for this crop.

### Tools for Winter Pruning

In trimming trees, we want something that will make a good, smooth wound. The advantage I find with my saw is that it has a stiff back, making the blade perfectly rigid, which can be brought up with a set screw. That will make a good, close cut where the saw will not get a chance to wobble. Of course, the teeth of the pruning saw are fine and well set, so that it cuts rapidly. There was a blade on the end for jabbing, but that is a very poor tool, because you will make one or two strikes before you hit in the right place, and those make two or three wounds, and you get two or three suckers to heal over those wounds. The saw is in all cases the best tool to prune with, and makes very little injury to the cambium in cutting, and that is the important part of the tree, for that is the part from which we get all our growth, and want to take the greatest care of it.

Prof. W. N. Hutt.

### Canadian Fruit Not Uniform

One of the great needs of the Canadian fruit trade is more uniformity in methods of packing, grading, size of packages and generally in the condition of the fruit. The British merchant is too busy to take time in selecting parcels of individual merit and advertising them to special customers. What is wanted in uniformity in methods and quality so that the fruit can be sold upon grade.

The effect of this lack of uniformity is well shown by the following extract from a report of the Canadian Government agent at Glasgow. He says:

"Grimsby and Burlington ship-

## Nitrate of Soda

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# Equalizing Market Prices of Chicks

By F. C. HARE, Chief Poultry Division Department of Agriculture, Ottawa

Some experiments have recently been conducted by the Dominion Department of Agriculture to ascertain the loss in weight of fatted chickens (1) when starved 36 hours and ready to kill; (2) when killed by dislocating or breaking the neck, dry plucked and cooled 20 hours; (3) when drawn and prepared for roasting. Twelve chickens were thus treated.

The results were: (1) As a result of the 36 hours starving there was an average loss of three-quarters of a pound in the live weight of each chicken. (2) There was a loss in weight of five ounces due to the killing, plucking and cooling of the chicken. This small loss would represent the weight of the feathers; there is no appreciable loss in weight owing to the 20 hours cooling.

The combined results of (1) and (2) were: The total loss in weight of chickens when they are prepared for market by having their necks broken, dry-plucked and not bled or drawn, averages one pound from the live weight. All chickens that are exported to Great Britain are sold by this plucked weight. In a large number of Canadian cities, and on the smaller markets where undrawn fatted chickens have been tested and their improved quality recognized, a plucked chicken is more readily bought "that one that has been drawn." A chicken that is not drawn until required for the oven is more juicy in flesh than one that has been drawn as soon as killed and subjected to the atmosphere.

(3) In order to complete this experiment and to ascertain the loss in weight when chickens are prepared for the oven, the twelve chickens were drawn, and their heads, legs and outer joints of the wings were removed. There was an average loss in weight of one pound and one-half on each chicken.

(4) To ascertain the price per pound at which the chickens could have been sold by drawn weight, plucked weight or live weight, and realize the same amount of money, the chickens were sold in a regular way on the Charlottetown, P.E.I., market. The selling price was \$5.95 and the price per pound was 16c. This price per pound was for drawn chickens. If the chickens had been sold for 11c. a pound after killing, plucking and cooling, or by plucked weight, they would have realized \$5.95 also. Or, if the chickens had been sold for 9c. a pound live weight, they would have realized \$5.95. So that a selling price per pound of 9c live weight equals 11c. plucked weight and equals 16c. drawn weight. These figures are equivalent to the weights of the chickens; a value has not been placed on the time necessary to kill, pluck, or draw the chickens.

By establishing equivalent values for the different selling prices the following table has been calculated:

Equal prices in cents per pound for selling chickens by live weight, plucked weight, or drawn weight:

Live.....	5.3	5.5	6.0	6.5	7.0	7.5	8.0	8.5	9.0
Plucked.....	6.3	6.8	7.4	8.0	8.6	9.3	9.9	10.5	11.0
Drawn.....	9.2	10.0	11.0	11.9	12.8	13.7	14.7	15.6	16.5

## Russia's Poultry Output

Russia seems to be forging ahead as a producer of poultry products. In 1897 she sent to Great Britain 376,000,000. In 1901, this number had increased to 539,000,000 or 26 per cent. of the total imported by Great Britain. In 1901, Russia exported in all 1,996,000,000 eggs, of which 786,000,000 went to Germany.

A number of cold storage warehouses capable of holding 500 tons of game and poultry and a like quantity of eggs are being constructed. In addition trains with refrigerator cars will be run to some Central seaport with a view to concentrating agricultural exports at one point.

## Canadian Poultrymen Successful

Several Toronto poultrymen, who exhibited at the Boston show, the middle of January, were successful in carrying off a number of the best prizes. Dr. A. W. Bell, won two prizes on partridge Cochins and partridge Cochin bant; A. C. Blyth, prize for light Brahma hen; James Bertie, eight regular prizes and two special for pyle game Bantams; J. N. O'Neil, five firsts, six specials, one of which was silver cup, for first Minorcas and Ed. Downy, two firsts, one second and one third for black Langshans out of four entries made. The Boston show was the largest ever held on this continent the total entry numbering 6,187.

## Value of Selection in Poultry Raising

I came across the following in an old poultry journal recently: Say one hundred birds are raised from a pen of fowls, ten of which are away ahead of the other ninety. The ninety birds left are worth market price and no more. How did it happen? These good birds are much alike, similar in shape and plumage. Could it be that they all came from an individual hen? If you only knew, you could breed those birds (the good ones) all the time. "I'll watch the hens in my breeding pen next year," you say, "and mark their eggs, know their mothers, keep a record of them." Then you will be doing some pedigree breeding.

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Take the Orpington Poultry ad. out. Will send you full postage stamp. Can. Could have sold hundreds of birds if I had not been so busy. I am sold out. F. R. HOLTERMANN, Brantford, Ont.

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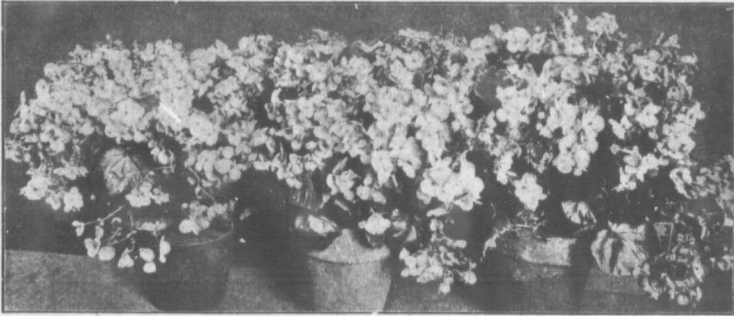
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Begonia. Glorie de Lorraine, one of the most floriferous winter blooming plants in cultivation—The best kind of decoration for the home.

#### Winter Morning on the Farm

The north wind bites uncovered nose and ears,  
And seems to freeze the blood within your veins.  
The snow is drifted deep upon the plains,  
And pasture covers where thick-grown woodland clears.  
The icicles, impending rows of spears  
By low eaves clutched, gleam threat'ning o'er your head,  
And in the orchard, quite with frost o'erspread,  
The school boy's trap, a figure-four, appears.  
You quick forget life's trials, cares and pains,  
You walk with almost reverent tread  
Through thickets where the berry bushes red  
Are interlaced, like yarn in tangled skeins,  
And note, around the farm home, row on row  
Of rabbit tracks—soft dimples in the snow.

—Roy Farrell Greene.

#### Chucky's Valentine

By Zelia Margaret Walter.

Chucky yearned to do heroic deeds. He was continually on the lookout for a runaway from which he could rescue a lovely lady or a beautiful child. To be sure he would have rescued a plain lady had she been in a runaway, but he preferred that the heroine of his dashing exploit should be "a regular top-notch'er."

When prowling about at night he kept his weather eye open for a starting fire in order that he might give the first alarm and so save a fine residence or business block from destruction. He haunted the ferry-boats that he might be on hand in case any one were in danger of drowning, and furtively watched suspicious looking characters in the park, who might be there to kidnap children. But fate had thwarted his large aspirations, and as yet he was just an everyday newsboy with a voice of great pow-

er and more than his share of freckles.

Aside from his heroic vein, Chucky was a domestic character, and as he had never known father, mother or other kin, he adopted a family, much after the fashion of Silas Wegg. His family lived in the prettiest house that he passed on his way to the corner where he sold his papers. There were a father and mother, a perfectly charming little girl of four, and a beautiful young aunt. The little girl's name was Rosemond. He heard it often as he passed, for Rosemond seemed to be a very important member of the family. The young lady was Aunt Ethel.

Rosemond soon noticed Chucky, for he always walked slowly past the house. Perhaps the proudest day of his life was the one when she pointed him out, saying, "That's my boy, Aunt Ethel." After that, when she was out she always called, "Howdo, my boy." And Chucky shouted back, "Hello, Rosemond." The little girl thought hello a superior form of greeting and wondered why mamma frowned upon it.

Chucky also had an ambition. He meant to have an "edication." He had gone to school a little and had heard about the street boy who became the governor of a state, and other boys who became lawyers, and doctors and merchants. And if one boy could do it why not another who would try equally hard?

When the 14th of February approached, Chucky decided that he ought to send a valentine to his family. But should he send it to Rosemond or Aunt Ethel? One day Rosemond waved her hand to him from the window, and he favored her; the next day Aunt Ethel smiled at him as she was going out of the gate, and he said she should have it. He settled the matter by sending one to each.

Those valentines were works of art. They were written in poetry and Chucky spent three anxious days in their composition.

On St. Valentine's morn Rosemond could not be coaxed away from the front door. When the

mail-man came at last, a little late, she shrieked with joy at the sight of the dozen packages he put in Aunt Ethel's hands. They were not all for Rosemond, however. Mamma was smiling over the verses that papa had written as an accompaniment to the box of flowers that he never forgot. Aunt Ethel had caught up another envelope, and she too was blushing and smiling, so Rosemond had to stand waiting, but not patiently. But in a moment they were ready to open her envelopes for her. There were half a dozen perfectly gorgeous valentines. Then Aunt Ethel said:

"What in the world is this?"

Then she read:

"There ain't any little kid in the world

That's purtier than you.

You've got nice golden curls,

And your eyes they are blue.

I'd like to be your valentine,

And serve you honest and true,

And I'll lick any old chump in the town

That makes faces at you."

"Oh!" cried Aunt Ethel, with a shriek of laughter, "It's from that newsboy that passes here every day.

Isn't it perfectly charming?"

"I think that is a nice valentine," said Rosemond. "And I'm going to tell my boy that Howard Crosby makes faces at me."

"I think it's very nice, too," said Aunt Ethel. "I wish he had sent one to me."

"Here is one for you," said mamma.

Then Aunt Ethel read her tribute from Chucky:

"If I had a million dollars

And a palace on the seashore,

I'd give them to you, fair lady,

And a couple of million more.

I'd like to gaze upon you every day,

You've got a stunning smile,

You're a regular top-notch'er,

And I like your style, and won't you be my valentine?"

Chucky had to sacrifice poetry to sentiment in the last line, but like many another true lover he did it unflinchingly.

"What a treasure of a newsboy," cried Aunt Ethel. "I'm going to watch for him to-day and tell him

that I certainly will be his valentine for that poetry."

They did watch for Chucksy, but he didn't pass that day nor the next, and then Aunt Ethel declared that she must go and find him.

On St. Valentine's day Chucksy's great opportunity came. It was late in the afternoon that he heard the cry of runaway ringing down the street. Of course he was ready to stop it. He had only time to notice that a man instead of a woman was in the roadcart, when the horse was upon him. He was dragged off his feet, he did not know where or how far. He had room for only one thought and that was that he must hold on. Then there was a moment of darkness, and immediately he waked up in the hospital.

It was the second day of his stay there that Chucksy lifted up his eyes and beheld a vision. Aunt Ethel and Rosemond were approaching, and the little girl had her hands filled with flowers.

"I'm glad you're looking so well, Charles," said Aunt Ethel. "We just heard about your being hurt and we wanted to tell you how we liked those valentines."

Chucksy's face turned very red, and he looked uneasily about as if he meant to try to escape, when the man who had been in the runaway entered the room.

"Why, Miss Ethel," he said, "you must be glad my life was saved since you come to see the boy that did it."

"Were you the man?" she cried. Then turning to Chucksy she said, very fervently, "Oh, you darling!" And Chucksy looked very miserable for he feared this enthusiastic young lady might kiss him next. If there had been no one to see it would have been another matter, but with all those spectators about—oh, no.

"Chucksy, you are a lucky fellow," said the young man.

"Charles is my valentine," said Miss Ethel, and then to Chucksy's great relief they began talking of something else and forgot about him.

Rosemond laid her flowers on the bed, and confided to Chucksy that she wished she could sell papers, and he told her some of the adventures connected with the profession, and, Othello-like, quite won her heart. When Aunt Ethel said it was time to go she rebelled until comforted by the promise of coming again.

Chucksy got well in a very short time. With two such friends as Miss Ethel and the knight of the runaway, his cherished dream of an "edification" became a reality. Indeed, all of Chucksy's dreams came true at once. He had stopped a runaway, he was going to school, and he belonged to a family, for he was welcome at Rosemond's home as often as he chose to come, and the little lady always greeted "my boy" with shouts of joy. To be sure he is not a governor yet, but I see no reason why he should not be some time if he tries hard enough, do you?

### Hints by May Manton

WOMAN'S THEATRE WAIST, 4294

Theatre or informal evening waists find a place in every wardrobe and are offered in a variety of styles. This smart and attractive model suits both the odd bodice and the entire gown and includes



4294 Theatre Waist,  
32 to 40 bust.

some of the best features of the season, the soft full sleeves under snug upper ones, the pointed cuffs and collar, with an entirely novel bolero. The original is made of white crepe de Chine with cream Venetian lace and is worn with garniture and belt of pale green velvet, but combinations without number might be suggested. Chiffon is always lovely for the waists as are crepe nimon, louisine and all soft silks and wools, while the jacket can be lace of any sort or one of the pretty flowered silks.

The foundation lining fits snugly and closes at the centre front. On it are arranged the front and back of the waist, which are tucked to yoke depth, and the bolero, both of which close at the centre front, the waist invisibly beneath the central tuck and in the folds. The sleeves are arranged over fitted linings that are faced to form the cuffs and which hold the fulness in place. The neck is finished with the stock which closes at the back.

The quantity of material required for the medium size is  $4\frac{1}{2}$  yards 21 inches wide, 3 yards 27 inches wide, or  $2\frac{1}{2}$  yards 44 inches wide with  $2\frac{1}{2}$  yards of all-over lace for bolero, collar and cuffs.

The pattern 4294 is cut in sizes for a 32, 34, 36, 38 and 40 inch bust measure.

WOMAN'S WORK APRON, 4324

Every housewife, every artist and every other woman whose occupation means danger of soil to her gowns, feels the need of a protective apron. This very excellent model was designed with direct reference to such need and is eminently serviceable and satisfactory at the same time that it is tasteful. The original is made of white lawn and is simply stitched, but gingham and all apron materials are appropriate, and bands of embroidery can

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is a guard against all skin troubles in children. It cleanses, softens, soothes and prevents chafing and sores.

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TORONTO

W. H. SHAW, PRINCIPAL

## The Domestic Science Course

—AT THE—  
**WESTERN DAIRY SCHOOL**  
Strathroy, Ont.,

Will open on January 15th. Classes will assemble on January 20th, and continue for two months.

Separate apartments have been fitted up with the best appliances for Scientific and Practical work.

The course will include Lectures, Demonstrations, and Practical Work in Cooking, Selecting and preparing foods for the table, and all subjects in relation to Household Economics.

This department is in charge of Mrs. Elizabeth M. Torrance, and is specially provided for the farmers' wives and daughters of Western Ontario. For circulars and other information address

**AROLD SMITH,**  
Supt. Western Dairy School,  
Strathroy



be substituted for the plain ones if desired.

The apron is made with front and backs that are gathered at their upper edges and finished with



4324 Work Apron.  
Small, Medium, Large.

bands that serve as a yoke. To these bands are attached others that form shoulder straps and which serve to keep the apron in place. A single button and buttonhole make the only fastening that is required.

The quantity of material required for the medium size is  $4\frac{1}{2}$  yards 27 inches wide, or  $3\frac{1}{2}$  yards 36 inches wide.

The pattern 4324 is cut in three sizes, small, medium and large.

WOMAN'S SHIRT WAIST, 3975

The plain shirt waist makes the best and most fashionable of all models for general utility wear, and can be relied on to be always in vogue. This modish model is simplicity itself, and is suited to all the season's materials; but, as shown, is of linen batiste, with embroidered dots of blue, and is worn with a stock of white with a tie



3975 Shirt Waist. 32 to 42 Bust.

of the material and a blue ribbon belt.

The back is plain and smooth across the shoulders and drawn down in gathers at the waist line, but the fronts are gathered both at the collar and the belt and are finished with a regulation box plait. The sleeves are in shirt style with square-cornered cuffs of the latest width.

To cut this waist for a woman of medium size  $3\frac{1}{2}$  yards of material 21 inches wide,  $3\frac{1}{2}$  yards 27 in-

ches wide,  $2\frac{1}{2}$  yards 32 inches wide, or 2 yards 44 inches wide will be required.

The pattern, 3975, is cut in sizes for a 32, 34, 36, 38, 40 and 42 inch bust measure.

**The price of the above pattern post-paid is only 10 cts. Send orders to The Farming World, Morang Building, Toronto, giving size wanted,**

Watching Things Grow

We all like to watch things grow. With very little labor and no expense, we may have that pleasure. Here are a few suggestions:

Take a glass and fill it nearly full of soft water. Tie a piece of cheese cloth or netting over it, and press down into the water. Place some peas down in the cloth or net. In a few days they will sprout, the little fine roots going down through the net into the water, and the vines can be trained to climb up strings or a trellis.

Scrape out the inside of a turnip, leaving a thick wall. Fill with earth and plant some seeds of a clinging vine. Suspend your "hanging-pot" with cords and before long the vines will twine around the strings, and the turnip will send forth gracefully curling leaves from its base. Be sure to use the root part of the turnip for the upper part of the hanging pot

No Danger.

Prof. W. Hodgson Ellis, Official Analyst to the Dominion Government, has proved by analysis that Sunlight Soap is a pure and well-made soap, and has a thorough "cleansing power, without danger to the clothing or skin."

Clothing is worn more in the wash than in use where common soaps are used, and the hands are liable to eczema. Try Sunlight Soap—Octagon Bar—next wash day, and you will see Prof. Ellis is right. No one should know better than he.

223



Give for selling only 2 doz. large packages of **Sweet Pea Seeds** at the sale. The packages are monthly distributed in 12 lots and each one contains 42 of the finest, prettiest and most fragrant varieties in every imaginable color. **Everybody buys.** Wm. McKell Ferguson, N. S. says: "I sold all the seeds in 12 minutes." 2 lbs. credits for free with each package. The wonderful treatment is made by the famous **Columbia Phonograph Co.** of New York and Paris. Write if we send free selections as follows: Speeches "Song of Giuseppe," "The Floating Bird," "Meditations of Buddha," "The Land," "The Kingdom of God," etc. and **Virginia Lands**, "Little Land" Write us a post card today and we will send the books post-paid. **M. Payne, Dominion's Curator, Ont. 4971** I think my description is a splendid premium for so little work. **The Dominion Seed Co., Dept. 328, Toronto, Ont.**

**VIRGINIA LANDS**  
Productive soil, delightful climate. Free catalogue.  
**R. R. CHAFFIN & CO., Incorp. Richm. nt. Va.**

Renew Your Subscription at Once, and Take Advantage of this Special Offer

FOR a short time only, we will give away with each renewal one of our Ideal Cook Books. This book is bound in oilcloth, and contains over 1,000 excellent recipes. The chapter on "The Sick" is itself worth the regular price of the book, which is \$1. It is the most practical cook book in the world, and the recipes are all of a kind that appeal to the common sense of the housekeeper. Here is your chance to obtain this book absolutely free, and we strongly recommend all who have not already done so, to renew at once and take advantage of this offer.



With this, the February 1st issue, you will notice a great improvement in our paper, and without doubt our subscribers now receive, twice a month, the largest and best agricultural paper in the Dominion.

If you are already paid in advance, you can obtain this book by either sending \$1.00, when we will mark your subscription up for another year, or by sending us one new subscription at our regular price of \$1.00 a year.

Remember, for \$1.00 we will mark up your subscription to The Farming World and Canadian Farm and Home one full year and send you this book, postpaid. Address,

**DOMINION PHELPS, LIMITED**  
Morang Building, TORONTO, ONT.

or someone will have a good laugh at your expense.

Take a large pine cone, wet it thoroughly, then sprinkle with grass seed and place in the centre of a saucer filled with fresh moss. The moisture will close the cone partly, and in a few days the grass blades will appear. Keep secure from your pet goat, calf, pony and the frost.

Take a large carrot, cut off an inch and a half or two inches of the top and set in a glass dish. Put water enough in the glass to nearly cover the carrot top. Set where it will have a good light. Do not let the water get low in the glass. Always add water of the same warmth. With slight attention you will have a "thing of beauty" during all the winter days.

Surprise your friends by having apple, crab-apple, cherry and lilac blossoms at Easter. Take the budded sprig from the trees and put in a glass pot or fruit jar. Fill jar with lukewarm water, and place in a sunny window. Apple, crab-apple and cherry sprigs require six weeks in water before they bloom, and the lilac two or three weeks longer.

Anyone who tries one or all of these "experiments" will be amply rewarded for his slight labor in the happy results.

"Oakwood."

Love's Way

I built me a mansion stately and grand,  
Richest of dwellings in all the land.  
Wide were its portals and fair to see.

Love, I would take her to dwell with me.

Love she gathered her cloak of brown,  
Said me a "Nay" with her eyes bent down,  
Went her way to a lowly door  
One had fashioned whom we call poor.

There she goes out and in with him,  
Brightens his hearth, while my own is dim.

Wee heads crowd 'neath the doorway vine,

Never the laugh of a child from mine.

—Cora A. Matson Dolson.

Cleaning Hints

Pieces of lace should be buried in French chalk, repeating the operation several times if necessary, until the lace is clean.

Grease spots on even the most delicate material will often yield to French chalk or fuller's earth. However, if it doesn't spread a sheet of blotting paper underneath and another on top of the spot and hold a warm flatiron, not hot enough to scorch, on the blotting-paper which is on the wrong side of the goods.



**GIRLS THIS DOLL IS FOR YOU**

Not a single cent to pay for her. As pretty as a picture. You will fall in love with her the minute you see her. Golden ringlets, laughing blue eyes, rosy cheeks, stylishly dressed in silk and satin, with velvet and lace trimmings. Lovely trimmed hat, dainty little slippers, red stockings, lace-trimmed underwear. She can be dressed and undressed like any live baby. Her head, arms and legs are movable. She can stand alone or sit in a chair or on the floor. When you get her you will say she is the prettiest doll you have ever seen. **We give her free**, for selling at 15c. each only 8 Canadian Home Cook Books. These books are nicely printed, beautifully bound, and each contains 725 choice recipes. Write us a Post Card to-day and we will send you the Cook Books post-paid. You can easily sell them in a few minutes. **Every housekeeper buys one, 50,000 sold already.** With every Cook Book we give a Gift, Certificate Free. JESSIE BAXTER, SUPERVISOR, Q.C.E., says: "I never saw anything sell so quickly as your Cook Books." Don't miss this grand chance but write at once. LIZZIE BRIMLEY, NEWDALE, MAN., says: "I received the Doll and think it is a fine Christmas gift. It is the prettiest Doll I have ever had." Address **THE HOME SPECIALTY CO., Dept. 310, Toronto.**



**BARGAIN SALE**

**Remnants of SILK RIBBONS almost FREE**

We have recently received several thousand yards worth of Ribbon Remnants, in London, England, made before the war and of the highest quality. We are enabled to offer the lady readers of this paper **unlimited quantities** of these Ribbons. Each yard is cut from **one to three yards in length**, and some are inches wide. The Ribbons are of the very finest quality, Green, Blue, Gray, Black, White, Pink, Cream, Red, etc. in a variety of fashionable colors, all shades and widths, such as for Bonnet Straps, Neckwear, Trimmings for Hats and Dresses, Ties, Scarves, etc., etc. All first class. **So take your chance** and see Ribbons as there is any more in the world for any time or place. **Don't miss it!** **Home Specialty Co., Dept. 310, Toronto.** Mrs. W. G. Galt, says: "I received the Ribbons and was very pleased with them. I have used them for my hat and for my dress." **Home Specialty Co., Dept. 310, Toronto.**



**VIOLIN \$1.99**

**GRAND 60-DAY OFFER.**

Complete Stradivari model, made of selected wood with light polished finish. Includes bow and case. **Violin with complete Stradivari model, made of selected wood with light polished finish. Includes bow and case. Violin with complete Stradivari model, made of selected wood with light polished finish. Includes bow and case.**

**Home Specialty Co., Dept. 310, Toronto.**



**BOYS, LOOK! FREE RIFLE**

**SURE DEATH TO RATS, CROWS, SQUIRRELS, RABBITS, ETC.**

Boys! How would you like to have an All-Steel Long-Range Rifle of this make and target mark? This is a new one. It is a beautiful rifle with a powerful scope and perfect accuracy. We are giving away **Absolutely Free** these rifles to the boys who will sell only **15c** each. **Home Specialty Co., Dept. 310, Toronto.**



**Earn This WATCH**

With 10-12 silver plated metal case and leather strap. **Home Specialty Co., Dept. 310, Toronto.**



**FREE SOLID GOLD RING**

Complete Stradivari model, made of selected wood with light polished finish. **Home Specialty Co., Dept. 310, Toronto.**

# 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

Use "made in Canada" Sugar.

Beet sugar manufacturing is purely an agricultural enterprise.

Encourage home production by purchasing home produced sugar.

The combined capacity of the factories is 2,500 tons of beets per day.

The by-products from a sugar factory are very valuable to the farmer.

The home article is superior in all respects to the foreign produced article.

A ton of beets of good quality will produce 200 pounds of fine granulated sugar.

An acre of good land properly worked will produce on an average of 15 tons of beets.

The beet pulp makes an excellent food for stock and the refuse lime cake is an ideal fertilizer.

Have you ever grown any other crop that has paid you on an average \$60 to \$75 per acre?

Any of the sugar companies will sell you the proper kind of sugar beet seed at 15c per pound.

A ton of good beets are worth from \$4 to \$5 according to the amount of sugar they contain.

Try an acre or two of beets. If you do not sell to the sugar factories you can feed them to your stock.

The farmers are in need of just such a market as has been created by the establishment of the beet sugar industry.

From the field to the table in 48 hours is a quick transition. Beets can be harvested and converted into granulated sugar in that time.

## Dresden

The sugar factory at this point finished their season's operations on the 3rd day of January, slicing in the neighborhood of 21,000 tons of beets and producing nearly 4,000,000 lbs. of sugar. The capacity of this plant is 600 tons per day and they have had only about one-third of the necessary quantity of beets for a full season's operation. This is owing very largely to the extremely wet season during which a good many of the beets were drowned out and entirely lost. They are now making contracts for this season's work and expect to have under cultivation not less than 7,000 acres.

## Beet Sugar Association

As we go to press the Ontario Beet Sugar Association is holding their annual meeting at the Walker House in this city. Delegates are in attendance from all parts of Western Ontario. Since the last meeting over two million dollars has been invested in the beet sugar business, four factories having been built at the following places: Berlin, Dresden, Wallaceburg and Wiarton, the combined capacity of



John Parry, Dunnville, Ont.  
President Ontario Beet Sugar Association

these factories being 2,500 tons of beets daily. To supply these factories with raw material requires the cultivation of 25,000 to 30,000 acres of beets which means a daily pay roll to the farmers while the factory is in operation of \$10,000. Canada imports about 360,000 tons of sugar per year, every pound of which can be manufactured in this country. It would require 25

to 30 factories of the same capacity as the present factories to supply the consumption of sugar in this country. For next year indications are that two more factories will be built, one in Alberta, N. W.T., and the other possibly at a point east of Toronto. These factories will probably be the only ones built for some time until the industry has been proven successful. Under the present condition of the tariff there is no great encouragement to invest money in the sugar industry in this country. The bounty, paid by foreign countries has a tendency to reduce the price of sugar almost below the cost of manufacturing it in this country and unless some assistance is given by the Dominion Government either in the form of a countervailing duty, increase in the tariff or a direct bounty until such times as the industry can be fully established the sugar companies will have a hard struggle to make ends meet. At the present time the farmer has much the best end of the industry. There is no crop that will pay a farmer so well as the growing of sugar beets for factory purposes, but the difficulty is to induce enough farmers at the initial stage of the industry to grow beets in such quantities as would keep the factories in full operation during the season. With an increase in the tariff or in the price of sugar the sugar companies could afford to pay the farmers a little higher price for their beets, when farmers would more willingly take up the growing of sugar beets. The different factories are now securing their acreage for the present year

## Copper and Brass Work

Of every description. Special attention given to plants for Beet Sugar Factories, Glucose, etc.

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The **Booth Copper Co.** Limited  
Established 1854

**COPPERSMITHS**

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and will purchase beets that are properly grown at any point in the Province of Ontario, but all beets must be delivered at the factory at the price fixed by the Ontario Government under the Bounty Act of 1902.

#### Wallaceburg

The Wallaceburg Sugar Company was in operation about 45 days, a portion of that time running at less than half their capacity owing to the scarcity of beets. About 18,000 tons were sliced and about 3,000,000 and a half of sugar produced. The factory was very successful during the short period of its operation and the owners thereof are extremely well satisfied with the results considering the quantity of beets sliced. Contracts are being made for the present season's campaign, and 10,000 acres of beets are to be contracted for. The factory will be enlarged by \$50,000 additional in machinery and capacity largely increased.

#### Berlin

The Ontario Sugar Company's factory was the last of the four factories to commence building operations and was the first factory turning out sugar. About 50,000 tons of beets have been sliced and the factory is still in operation. They were shut down, however, for ten days during the month of January on account of bad roads and not being able to get in sufficient beets to keep the factory running. They expect, however, to finish up the campaign about the 15th of February. The farmers in this district have been well satisfied with the results from growing beets and are signing contracts very freely for another season. Over 5,000 acres have already been contracted for, and about 8,000 acres are expected. This factory had some difficulty in taking care of the beets early in the season, the factory not being ready to start as early as expected and the farmers were put to some inconvenience in delivering their beets. This difficulty will be obliterated next year by the factory starting at least a month earlier and also by the increased unloading facilities which the factory will have. It is not expected that any changes will be made in the factory, as it is complete in all its details and is capable of taking care of 750,000 tons of beets daily. About 7,000,000 tons of granulated sugar will be produced this season.

#### Warton

The Warton Beet Sugar Company's factory is still in operation having a few thousand tons of beets yet to slice. The factory, although started late, did excellent work, turning out a fine quality of sugar. Acreage contracts are being made for next season's operation and the directors are extremely well satisfied with the outlook.

## HOLSTEINS and Improved Yorkshire Pigs

—AT—

### ANNANDALE STOCK FARM

We are now offering for sale several young bulls from three months to 15 months, also heifers. The dams of these animals were bred by the late E. D. Tillson, and the Annandale herd has more than a provincial notoriety as milk producers. Therefore if you wish to improve your stock this is an opportunity.

Write us for catalogue, or we will be pleased to have you call and inspect our stock. Our farm is in the corporation, within ten minutes' walk of M. C. R., Wabash, G. T. R. and T. L. E. & P. R. Stations. Cor-respondence solicited.

E. D. Tillson Estate, Limited, Tillsonburg, Ont.

### PURE BRED STOCK

I have just now in fine condition a number of specially good animals, and shall be glad to quote prices and give full descriptions if stockmen will let me know their wants. For many years I have given the most careful personal attention to the selection and improvement of my herd. At present I have for sale 3 SHORTHORN BULLS from fine milking strains; colors roan and red; ages from five to seven months. Stockmen will also be interested in 7 AYRSHIRE BULLS which I have for sale. These are fine animals, ranging from seven to eleven months old. They are a fine dairy type, sired by "Blair Athol" and "White Prince." I have also AYRSHIRE COWS and HEIFERS, all ages, many of them sired by such bulls as "Dominion Chief," "White Prince" (imported), and "Silver King." I offer a fine lot of YORKSHIRE BREEDING SOWS and YOUNG PIGS two to four months old; also BOARS FIT FOR SERVICE, proper bacon type.

JOHN H. DOUGLASS, Warkworth, Ont.

### Scotch Shorthorns

Imported and Canadian Bred Shorthorns. Imported bulls, cows and heifers of the best families, herd headed by Bapton Chancellor Imp. and Vicary, bred by Lord Lovat.

### Large White Yorkshires

A choice lot of boars ready for service, direct from stock of the best herds in England. Also young pigs and sows bred or old enough to breed.

Address H. J. DAVIS, WOODSTOCK, Ont.

Importer and Breeder of Scotch Shorthorns and Large White Yorkshires.

**SILOS** FROM PUCET SOUND TO YOUR FARM. We shall like to send you **Staves One Piece the Depth of Silo.** (over, mile stack of staves to length must be handled in our loads, giving to people contemplating the erection of a silo the benefit of through ear load freight rates in a delivered price on silo complete. Write me, giving us the best subject to your wants, and have booklet, "Silos and Staves," mailed you. I show how to build, how to fill. W. H. L. L. & S. P. CO., Kalamazoo, Mich.

## 'MELOTTE' Cream Separators

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### 'MELOTTE' SEPARATORS

#### 'MELOTTE'

Takes One-Third less Power than others.

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Produces One-Fifth more and Better Quality Butter.

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more easily managed.

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Lasts Longer and costs less for repairs

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Is the only Separator fitted with Enamelled Bowl Casting.

Were sold last year, all giving unqualified Satisfaction!

Machines sent on Free Trial and taken back if not satisfactory.

The only Cream Separator in the World Fitted with a Brake.

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R. A. LISTER & CO., Limited, 579 & 581 St. Paul St., MONTREAL.

When writing to Advertisers mention THE FARMING WORLD.

## Dominion Shorthorn Breeders

The seventeenth annual meeting of the Dominion Shorthorn Breeders' Association was held in Toronto on Jan. 27. There was a large and representative attendance, members being present from the Maritime Provinces and the West. President Robert Miller was in the chair. Secretary Wade's report was most satisfactory, showing the association to be in a flourishing condition, both financially and otherwise.

During 1902 there were 9,980 registrations and 3,883 changes of ownership and duplicate certificates, as compared with 8,874 registrations and 3,019 changes in 1901. In 1894 there were only 3,045 registrations, 3,142 certificates, and 493 transfers. The registration fees were \$9,497.31, an increase of \$937.30 over 1901. The total paid-up membership was 1,762 or 197 more than in 1901.

There were 6,152 head of Shorthorns sold in the United States and Canada by public auction for an average of \$260.40 each. Large numbers were disposed of at private sale. Attention was called to the fact that a number of cattle have been brought into Canada from the United States whose pedigrees had to be rejected, because, though registered in the American herd book, are not eligible to be registered in the Dominion herd book, as they do not trace all their crosses to imported cows. Breeders are cautioned in regard to this.

The total receipts were \$20,929.84 and the disbursements \$13,225.59, leaving a balance on hand of \$7,704.79. Volume XVIII of the herd book had been issued, containing 4,304 bulls and 4,864 cows, total, 9,168.

### IMPORTANT RESOLUTIONS.

Several important resolutions were passed as follows: That, as the Americans were drawing the lines closer in regard to cattle entering that country from Canada, the Canadian regulations be made more stringent with a view to keeping out cattle not eligible for registration in the Dominion Herd Book, and towards effecting a more reciprocal arrangement; that the Hon. Mr. Fisher be petitioned to take the proper steps to bring about a large display of Canadian Shorthorns at St. Louis in 1904; that the members be made members of the Dominion Cattle Breeders' Association at 50 cents each, the proceeds to be devoted to prizes at the Provincial Winter Fair; that \$1,000 be granted to the Industrial Fair and \$1,500 if a Dominion exhibition is held, provided the fair board will put up a similar amount for Shorthorns; that the following grants be made to other fairs on similar terms: Maritime, Winter Fair \$150, Western Fair \$500, Ottawa \$100, Winnipeg \$500, Brandon \$250, Calgary \$100, New Westminster, B.C., \$100, Victoria, B.C., \$100, Sherbrooke, Que., \$100, Halifax \$100, Fredericton

\$100, Charlottetown \$100; that five memberships be taken in the International Show at \$100 each; that \$300 be granted to the Cattle Breeders' Association to be devoted towards advertising the breed in the West and elsewhere; that \$100 be given towards the expenses of a man to take charge of the live stock association car.

### THE OUTLOOK FOR CATTLE.

The Hon. Mr. Dryden, in addressing the meeting, referred to the past season as being a most satisfactory one for Shorthorn breeders. The present outlook was not at all pessimistic, though there may be "ups and downs." The Shorthorn was the best animal for the average farmer. Shorthorn men should stand together. There should be no separation of the Herd Book, which would lead to confusion. Should help to develop trade with both East and West. By spreading the breed over the country the beef cattle trade would be greatly benefited. Breeders should deal honestly with one another, once there is a suspicion of crooked work people would lose confidence in them and in the breed. Mr. Dryden referred to the establishment of an abattoir at Toronto Junction to prepare meat for the German market, as likely to prove of great advantage to the Canadian cattle trade. The man who feeds and fits his steers well will get good prices for them, but there was no bright prospect for the fellow who feeds and raises scrubs.

Arthur Johnston, speaking along the same line, stated there never was a better opportunity than at present to make money by buying and breeding good Shorthorns. On the whole better breeding cattle were to be found in Canada and the United States than in Britain.

Mr. Miller emphasized still further the need of developing large central abattoirs and moved that the Dominion and Provincial Governments be asked to do something towards getting this trade established.

Mr. W. E. Skinner, manager International Show, Chicago, who was present, spoke briefly in regard to further efforts to make this show truly a great continental exposition. He referred to the centralization of the packing trade in Chicago, which made it possible to utilize the by-products to the very best advantage. Under this arrangement Chicago packers can afford to sell a carcass for less than they pay for the live animal, simply because they can make a large profit by making the best use of the by-product. Packing houses scattered here and there over the country could not afford to do this. This concentration of effort is needed in Canada.

### OFFICERS FOR 1903.

Comparatively few changes were made in the list of officers. Mr. Wm. Linton, Aurora, was elected

## A Common Bred Cow



When toned up by Dick's Blood Purifier will give as much milk as a highly bred aristocratic Jersey cow when given.

## DICK'S BLOOD PURIFIER

will wonderfully increase her yield of milk. It saves feed too, because a smaller amount of well digested food satisfies the demands of the system and every particle of nourishment sticks.

50 cents a package.

Leeming, Miles & Co., Agents, MONTREAL.

## Champion Berkshire Herd of Canada (Headed by the 1000-lb.)

## SILVER MEDAL

### CHAMPION BOAR OF CANADA

(and other noted Prize Boars)

I was awarded the above honors, besides 10 other prizes, at the late Toronto Exhibition. The great growth and size of my hogs, at the different ages, was freely complimented on, by the best judges, many of whom assured me and I had the HEAVIEST HOGS on the grounds of ANY BREED in almost every class, and at every age. I have a grand lot of young boars, ready for service, young sows bred to prize boars, and young pigs from my best prize sows and boars, all for sale very reasonable. Come and see them, or send for pictures of my winners, showing part of the group that won at Toronto. W. H. DURHAM, York Lodge, East Toronto P.O., Canada.

## Maple Ledge Stock Farm

Scotch Shorthorns, Choice Milk- ing Strains, Prize Winning Leicester, Young Stock for sale—imported and home bred.

A. W. SMITH, Maple Ledge P.O., Ont.

### FOR SALE

Large English Yorkshires. Boars fit for service; sows ready to breed; boars and sows 8 weeks to 3 months old, from imported and Canadian bred sows. Write JAMES A. RUSSELL, Precious Corners, Ont.

## A GOOD LINIMENT

For 50 cents a Gallon can be made as follows:

Absorbine, 4 ounces  
Vinegar, 1 quart  
Water, 3 quarts  
Saitpetre (powder), 1 ounce.

This combination will prove satisfactory and successful for curing Bruises, Strains, Collar Galls, to toughen the shoulders for work horses; will reduce Swollen Ankles, Bad Tendons, and all kinds of troubles where a liniment would be generally used. Buy the

### ABSORBINE

at the nearest manufacturer, W. F. YOUNG, P. B. F., SPRINGFIELD, MASS. Lyman Sons & Co., Montreal, Agents, who will send it prepaid upon receipt of \$2.00 for a bottle. One bottle ABSORBINE will make three gallons of liniment or wash as above formula. Write for a bottle and the free booklet giving formulas of Veterinary Remedies.







## Questions and Answers

### SOFT-SHELLED EGG

I wish to know the cause of pullets laying soft-shelled eggs. I have 12 Buff Rock pullets, and I give them all the oyster shell grit they can eat, also throw ashes on the floor, and I get from two to four soft-shelled eggs under the roosts every week.—W. S., Kent Co., Ont.

The trouble with the pullets laying soft-shelled eggs during the night is caused from ever-feeding, or from the fact that the chickens are too fat. This does not usually happen with young pullets, but is frequently the case with yearlings and two-year-old hens of such varieties as Rocks and Wyandottes, which are being forced for winter egg production. All that is necessary, where there is a plentiful supply of grit and oyster shell, to stop the production of soft-shelled eggs, is to increase the exercise, which decreases the fat. Probably the best way to do this is to use at least six inches of straw on the floor, and make the hens dig for every particle of food they get. If possible, make them throw their straw over two or three times a day.—W. R. Graham, O.A.C., Guelph.

### PIN WORMS IN HORSES

I have a horse with pin worms. He is always in poor condition, though I feed him well. What can I do for him?—T. B., Middlesex Co., Ont.

One of the most convenient and effective treatments for worms of this kind is the following:—drachm sulphate of iron, drachm tartar emetic and 2 drachms linseed meal, mixed well together. Give as one dose, repeating it morning and night for a week. Then give a purgative of oil and turpentine as follows:—1 ounce spirits of turpentine and 1 pint raw linseed meal. Mix well, and give as one dose. After three weeks, repeat the entire treatment, to catch the young worms previously left in the bowels, in the form of mites or eggs, and which have hatched since.

### BARRENNESS IN COW

I have an aged cow. She calved all right last May but did not give as much milk as in other years. She was in good condition and her udder seemed to be very fat. All last summer and fall she was in "heat" and was served, but she is in "heat" now. Will her milk be as good and healthy to drink and use in the family as milk from a new milch cow?—D.D.

This looks like a case of occasional barrenness caused usually by a cow becoming too fat, though a thin cow will sometimes get in this condition. Keep her on short allowance for a few weeks and give her a handful of Glauber salts every second day. At the proper time put her to a young and vigorous bull. If the cow is continually in heat, keep her by herself, and feed from half a pint to a pint of hemp seed once a day for two months. In some cases hemp seed seems to have a magical effect. Feed it both before and after the service—beginning say three weeks before coming in heat, and continuing right along till she becomes in calf. If on the other hand the cow is thin in flesh, fatten her up a little.

Milk from cows that are too good, usually developing bad odors, due to the abnormal condition of the animal. Otherwise the milk from a cow a

year after calving is just as good to drink or for family use as milk from a new milch cow.

### ODD CASE OF SCOURS IN SHEEP

I had some trouble with my sheep during the summer of 1902. It was very wet in this district. So long as I kept my sheep on natural grass for pasture they did well, but as soon as I changed them on clover they began to scour, and when once started it generally proved fatal, nothing seemed to stop it. What is the cause and can you give a cure?

I am feeding on clover hay now, and have lost several from the same cause. My pasture for 1903 will be rye and natural grass till about the end of May. After that I will have to depend on clover pasture. Which do you consider better, to put the sheep on clover first thing in the spring, or wait until June 1, when it becomes somewhat hardened?

Some of my neighbors have the same trouble. I have 125 sheep on one lot.—G.H.K., Elgin Co., Ont.

In reply to G.H.K. regarding difficulty with sheep on clover, I beg to say that I am not at all clear as to the cause of the trouble. Last year was an exceptionally wet year, and it is quite possible that this condition had something to do with the trouble experienced. I cannot understand, however, why sheep die after being taken into the pens. It seems to me that the only way would be to have an experienced, competent veterinarian examine the sheep, and carefully investigate all the conditions. I do not regard red clover as an ideal pasture for sheep. If it were mixed with other grasses there would be less danger than when sown alone. When pasturing clover, one is almost compelled to turn the sheep on fairly early, or the plant gets such a start that the sheep will not eat it. Alas! as a rule, gives better satisfaction as a sheep pasture than red clover, though timothy, clover and timothy or some other grass makes a very fair pasture.

Possibly some other subscriber may suggest a remedy for this trouble; but for my own part, I feel at a loss to account for it upon the information furnished.—Prof. G. E. Day, O. A. C., Guelph.

Note.—G. H. K.'s case is certainly a most peculiar one. We agree with Prof. Day that a thorough investigation be made by a competent veterinary surgeon in the locality. This trouble is somewhat widespread in the district referred to, and serious consequences may result if not attended to.—Editor.

### ABOUT RURAL LAW

In this column will be answered for subscribers, free of charge, questions of law. Make your questions brief and to the point. This column is in charge of a competent lawyer, who will, from time to time, publish herein notes on current legal matters of interest to farmers. Address your communications to "Legal Column," The Farming World, Toronto.

### COLLECTING A DEBT

1.—A. holds a note against B. B. is really worth nothing but a few

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household effects. What articles must A. leave B. if a seizure is made?  
 2.—B. is working by the day. Can A. collect B's wages?  
 3.—Can A. seize an article in the house that does not belong to B?  
 4.—If A. makes a seizure and only gets part of his claim, does that clear B?  
 5.—Is there any other way that A. can collect it?

—Subscriber, Ont.

1.—(a) The bed, bedding and bedsteads (including a cradle) in ordinary use by B. and his family; (b) the necessary and ordinary wearing apparel of B. and his family, and the usual household utensils to the value of \$50; (c) all necessary fuel and provisions actually provided sufficient to last him and his family thirty days; (d) tools and implements or chattels ordinarily used by B. in his occupation.

2.—No. As his wages are exempt up to \$25, and it is very improbable that there would be so much coming to him at any one time.

3.—No.

4.—No.

5.—No, not under the circumstances, as you state them.

#### PROTECTION OF SHEEP IN NOVA SCOTIA

1.—If dogs come into my sheep pasture and kill and mutilate a number of my sheep, after removing the living sheep leaving some of the dead carcasses, can I set a trap and shoot all dogs that get in the trap for several days and nights?

2.—If the dogs that I consider killed the sheep come onto any part of my land or pass along the road running through my land next day, can I shoot them, not having informed the owner?

3.—If there is good proof of dogs being shot, can an action be brought if none of the dogs have been identified by the owner?—Colchester, N.S.

1.—You may kill any dog found pursuing, worrying or wounding your sheep.

2.—No. But if you are sure that any particular dog has worried your sheep, you can have it destroyed by the authorities, by lodging a complaint, in writing on oath, with a justice of the peace, against such dog within six months of the time when it worried the sheep. You yourself can kill the dog only when you find it actually doing the damage, not afterwards.

3.—An owner of a dog could not recover damages from you for killing his dog under any circumstances, unless he proved that you had killed it. The fact that you had killed some dogs might be evidence against you in an action, but it would be necessary to prove that you had killed his particular dog.

#### HORSE SALE

Meeting M. on the road one day and getting into conversation with him about his horse, he offered to sell it to me as it stood for \$75. I wanted a horse, and thinking this was a good bargain, I bought it. I since find that the horse has several things the matter with him and is not worth nearly what I paid for him. Can I make M. take back the horse on the ground of misrepresentation?—W. P. B., Hastings.

No. M. does not appear to have warranted the horse in any way. He sold you the horse "as it stood," and you must abide by your bargain.

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The Canadian Produce Markets at a Glance

The highest quotations of wholesale prices for standard grades of farm produce in the leading markets on the dates named. Poorer stuff lower.

Date	Toronto		Montreal	St. John	Halifax	Winnipeg	Victoria
	30	28	24	24	21	21	
Wheat, per bushel.....	\$ 0 70½	80 73	\$ 0 00	\$ 0 00	\$ 0 70	\$ 1 05	
Oats, per bushel.....	31	32	42	43	27	32½	
Barley, per bushel.....	47½	43	.....	.....	28	1 05½	
Peas, per bushel.....	73	72½	.....	.....	.....	1 25	
Corn, per bushel.....	44½	58	.....	.....	.....	1 00	
Flour, per barrel.....	4 00	4 35	4 00	4 10	.....	5 00	
Bran, per ton.....	16 00	17 00	19 00	20 00	15 00	25 00	
Shorts, per ton.....	19 00	20 00	20 00	21 00	17 00	27 00	
Potatoes, per bag.....	1 08	95	1 25	1 00	40	75	
Beans, per bushel.....	2 10	2 00	.....	.....	.....	.....	
Hay, per ton.....	8 50	10 00	7 50	9 00	6 00	14 00	
Straw, per ton.....	5 50	6 50	6 00	6 50	.....	10 00	
Eggs, per dozen.....	22	23	22	20	22	40	
Chickens, per pound, d.w.....	14	13	13	12	11	15	
Ducks, per pound, d.w.....	14	12	14	12	10	18	
Turkeys, per pound, d.w.....	15	15	16	15	15	30	
Geese, per pound, d.w.....	11	10	10	10	10	25	
Apples, per barrel.....	2 50	2 20	3 00	3 25	3 50	.....	
Cheese, per pound.....	13½	13¼	.....	.....	13	25	
Butter, creamery, per pound.....	24	22	24	22	23	30	
Butter dairy, per pound.....	19	18	20	19	21	23	
Cattle, per cwt.....	5 25	5 00	4 25	4 50	4 00	.....	
Sheep, per cwt.....	3 75	3 50	3 00	3 25	3 50	11 00	
Hogs, per cwt.....	6 00	6 00	5 50	5 50	6 00	11 00	
Veal Calves, per cwt.....	6 00	5 00	4 50	4 75	.....	12 00	

Our Fortnightly Market Review

The Trend of Markets—Supply and Demand—The Outlook

Toronto, January 29, 1903.

In general trade the main features are unchanged and the same confidence exists as to the future of business. The lumber industry is a very encouraging factor just now. The money market keeps steady under a good demand for commercial enterprises. About 6 per cent. is the price for money on call, and 5 1-2 per cent. on time.

Wheat

The wheat situation, generally speaking, shows little change. A good export demand continues, which helps to keep up prices, and yet the supply of wheat in sight continues to grow. Locally the market rules steady here at 70 to 72c. for red and white, 67c. for goose, and 71 to 72c. for spring, east.

Coarse Grains

The oat market rules steady. Prices in the United States are higher than for export. So long as this keeps up Canada will likely find a good market for its surplus oat crop. The English market has ruled strong, with a good demand for Canadian. Barley rules steady at quotations in table. The pea market is rather quiet. The corn situation in the U. S. is somewhat peculiar, and is influenced more by car situation than by supply and demand. There is more disposition on the part of holders to ship corn. The Canadian corn market rules steady at quotations.

Seeds

Red clover seed is much stronger than a week or two ago owing to an increased demand from Europe. The export demand usually falls off about the middle of February so that prices after that time will depend entirely upon the local demand. At Montreal, wholesale prices are, red clover, \$6 to \$6.50, and Alsike, \$6.50 to \$7.75 per bushel, and timothy \$3 to \$4 per cwt. Toronto dealers quote red clover at \$6.50 to \$7.14, Alsike \$6.75 to \$7.25, and timothy \$1.50 to \$2.15 per bushel at country points.

Eggs and Poultry

The egg market has a decidedly easier tone, and prices have dropped considerably since last writing. The offerings have been heavy this week, and the mild weather has helped to increase the supply. Cold storage eggs are being put on the market in large quantities. There is a wide range of prices; 21 to 22c. are quoted here for new laid, and 15 to 17c. for fresh and cold storage eggs, wholesale.

There is little dressed poultry coming forward, and the market keeps firm at quotations.

Hay

The hay market is not as strong as it was, and prices have an easier

tendency. Shippers report the export trade as dull, and many are selling hay locally at Montreal, that was intended for export. Hay sold to Americans sometime ago in the East is still unshipped owing to the difficulty to get cars. The outlook is, therefore, not very favorable for present values being maintained.

Apples

The English apple market shows some improvement, though local markets here have not improved any. Woodall & Co. cabled Eben James on Tuesday that Greenings were then selling in Liverpool at \$3.50 to \$4; Baldwin's at \$3.50 to \$4.75; Spies, \$3.75 to \$4.25; Russets, \$3.50 to \$4.25; Kings and Ben Davis, \$3.25 to \$3.75. In London Russets were selling up as high as \$4.50 to \$5; Baldwin's and Greenings, \$3.50 to \$4.25; Spies, \$3.25 to \$3.75, and Kings and Ben Davis \$3.25 to \$4.

Dairy Products

There is a better feeling in the better market owing to light receipts. The recent cold weather in England has improved the demand there. Though Australasian supplies have been short, the large stocks in store have enabled dealers to get along at a lower range of prices than at this time last year. At Montreal, from 21 to 22c. are the ruling figures for choice creamery in round lots.

The cheese market rules firm, but quiet. Finest Canadian is now quoted in England at 6s. to 6s. The unsold goods on this side are very small and consequently there is little business doing. Fodder goods are expected along early this season.

Live Stock

Generally speaking, the live stock trade has been draggy. On Tuesday last the run of live stock at Toronto Cattle Market was light, and business dull. There is more shipping space offered and the demand for export cattle is a trifle better. Prices in the old country are so low that dealers cannot afford to pay the prices asked for by drovers. From \$4.50 to \$5 per cwt. was the ruling figure for good export cattle. The



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keys, 15c.; ducks and geese, 9-10c.; chickens, 9-11c.

Butter.—Receipts very light; prices same as last week. Dairy—best separator, in 1lb. bricks, 21c.; choice tubs, 14-17c. is offered by wholesale dealers.

Eggs.—Scarce; worth 22c. here, subject to candling.

Vegetables.—Prices are a shade higher this week in retail way, but no change in wholesale prices, except potatoes which have gone up to 40c.

#### Curry the Cows

At this season of the year, when most farmers have turned their attention to butter-making, it is essential that cleanliness in every particular be strictly observed. It is not enough that the stables be cleaned once or twice a day, the utensils scalded, and the atmospheric conditions perfect; we will not get the best results until this principle is applied to the cows as well.

I take as much pains in grooming the cows as I do the horses—using both the curry-comb and brush. Not only do they present a more attractive appearance, but I am satisfied that it pays in dollars and cents. This may seem like unnecessary labor, but a regular application of it, at least once a day, will do much to keep the cows in a healthy condition; the pores will be kept open, and besides, the cows will not lick themselves.

Licking frequently has an injurious effect. Small balls of hair are by this means taken into the stomach, and illness ensues. Only a healthy cow is a good dairy animal, and the curry-comb will promote this condition in the same degree that the bath does for man. If this method were always adopted before milking, much of the dust and other fine particles that adhere to the back and udder of the cow would not find its way into the milk-pail. As a general rule, however, that is where it goes, and a more or less tainted product is the result.

If there are any heifers in the herd having a tendency to wildness, it is the best remedy I know of. It brings the owner into frequent contact with them. They enjoy the operation, and become wonderfully docile in a very short time.

After following this practice for several years, I am able to obtain a satisfactory increase in the milk-yield over previous seasons.

J. Hugh McKenney.

Elgin Co., Ont.

#### Another Canadian Captured

Mr. J. S. Jeffery, St. Catharines, a graduate of the Ontario Agricultural College, has been appointed to take charge of the poultry department of the State Agricultural College of North Carolina. He will begin work at once. This is another evidence of the demand in the United States for live active Canadians, with an expert knowledge of higher agriculture.

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—Doherty organ, high back, 5 octaves, 5 sets reeds, treble and bass couplers, grand organ and knee swell, 12 stops. Manufacturer's price \$95, our mail order special \$51, \$5 cash and \$4 a month.

—Bell organ, high back, 5 octaves, 4 sets reeds, treble and bass couplers, grand organ and knee swell, 11 stops, manufacturer's price \$90, mail order special \$47, \$5 cash and \$4 a month.

—Goderich Organ, high back, 11 stops, 4 sets reeds, treble and bass couplers, grand organ and knee swell, manufacturer's price \$75, mail order special \$46, \$4 cash and \$4 a month.

—Bell organ, high back, 10 stops, 4 sets reeds, 5 octaves, couplers and grand organ and knee swell, manufacturer's price \$90, mail order special \$43, \$5 cash and \$3 a month.

—Dominion organ medium high back, 3 sets reeds and sub-bass, octave couplers, 8 stops, knee swell, manufacturer's price \$90, mail order special \$41, \$5 cash and \$3 a month.

—Dominion organ, high back, 5 octaves, 8 stops, 4 sets reeds, octave coupler grand organ and knee swell, manufacturer's price \$85, mail order special \$39, \$4 cash and \$3 a month.

—Floubet & Pelton organ, medium high back, 4 sets reeds and orchestral, grand organ and knee swell, chapel case, 9 stops. Manufacturer's price \$75, mail order special \$37, \$4 cash and \$3 a month.

—New England organ, low back, 5 octaves, 3 sets reeds and octave, knee swell, chapel case. Manufacturer's price \$90, mail order special \$23, \$3 cash and \$3 a month.

—Simonds & Cleophas organ, 7 octaves, 7 stops, chapel case, reeds, knee swell. Manufacturer's price \$60, mail order special \$21, \$3 cash and \$2.50 a month.

—Prince organ, low back, 6 stops, 3 sets reeds, 5 octaves, knee swell. Manufacturer's price \$55, mail order special \$19, \$3 cash and \$2 a month.

—Snell & Co. organ, 5 stops, 4 sets reeds, 5 octaves, low back, manufacturer's price \$60, mail order special \$18, \$3 cash and \$2 a month.

—Bell organ, medium high back, 5 octaves, 9 stops, 4 sets reeds, grand organ and knee swell, manufacturer's price \$85, mail order special \$36, \$4 cash and \$3 a month.

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3	20 "	3 to 8 "
4	30 "	4 to 12 "
5	35 "	6 to 14 "
6	40 "	8 to 20 "

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