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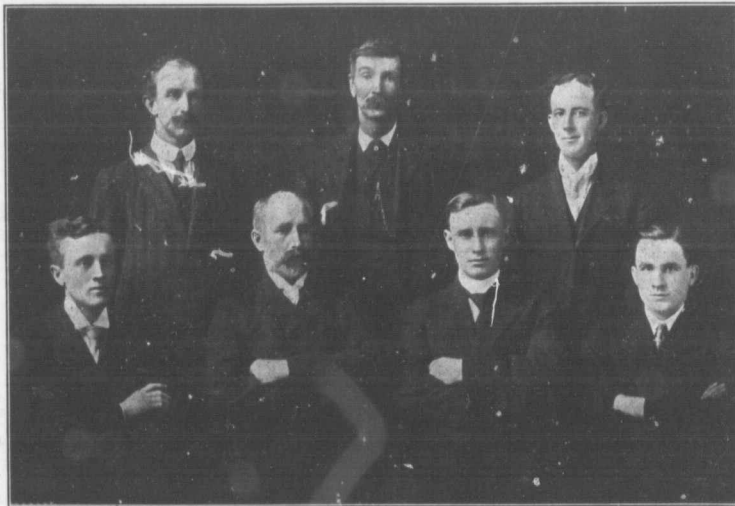
FARM AND DAIRY

RURAL HOME

PETERBORO, ONT.

JANUARY 1, 1910.

Dairy and Cattle Branch
Commissioner Deeth



SOME REPRESENTATIVES OF A SIGNIFICANT AND WIDE SPREAD MOVEMENT IN ONTARIO
That as farmers we are beginning to realize that the time has come when we must organize, in order that as a class we may assert ourselves, is evident in the Farmers' Club movement. Over 150 of these clubs have been organized during the past two years. The illustration shows the officers of one of the four Farmers' Clubs that have only recently been brought into being in Peterboro County. Reading from the right the men are H. C. Duff, B. S. A., District Rep., Dept. of Agri.; Wm. Scott, Vice-Pres.; T. H. Graham, Pres.; C. E. Moore, Sec.-Treas. Back row—E. Scott, J. Archer, J. A. MacGregor, Directors.

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Pork Packing in Alberta

The farmers of Alberta last week were informed by Premier Rutherford and Minister of Agriculture Marshall that the Government would establish a system of pork packing plants as soon as possible, provided the farmers would give a guarantee to provide the necessary animals to keep the plant running. The announcement was made at the Convention of the United Farmers' Association at which upwards of 100 delegates were present. At present the plants in existence in Alberta cannot get enough hogs to keep them running.

Satisfactory Showing for Grades

Editor, Farm and Dairy.—Herewith I beg to hand you report of the herd of Messrs. Halliday Bros. Sandwick, B.C., for the year 1909.

| Name of Cow | Pat. | Lbs. Milk |
|-------------|--------|-----------|
| Acy | 378.08 | 8655½ |
| Lop Ear | 376.77 | 7742 |
| Kirsty | 387.36 | 7970½ |
| Lilly | 318.39 | 6598 |
| Bell | 296.85 | 7109½ |
| Flirt | 277.89 | 6655 |
| Skinny | 277.37 | 6211 |
| Sophie | 268.07 | 6000½ |
| John | 252.39 | 6587½ |
| Edna | 252.39 | 6421 |
| Blackie | 231.60 | 6240 |
| Mary | 222.94 | 5433½ |
| Cle | 197.89 | 5465½ |
| Ethel | 186.31 | 5105½ |
| Crazy | 179.42 | 4598 |

4065.23 96796

Average271.01 6453

This is, I consider a most satisfactory showing for a herd of grade dairy cows, and is worth calling to the attention of the farmers of this country. J. H. Grisdale, Agriculturist, C.E.F., Ottawa.

Mining Scrip and Greenhorns

"Here is a yarn, vouched for by a stock broker, concerning the sale of worthless mining scrip to greenhorns in the country districts," says the Toronto Saturday Night.

A man walked into the broker's office one day and asked for the manager. When that magnate appeared he was asked if he had any Cobalt stock.

"What stock?" asked the broker. "Any of them that are cheap," replied the visitor; who went on to explain that what he desired was a lot of certificates, say one hundred thousand shares, averaging in value, say five cents per share, that he could take out into the country and sell over again to the "rabble."

The broker stated that he was just out of that class of securities and the stranger went his way.

Observations from Judging Field Crops

"From my two years experience in judging in Standing Field Crop Competitions, it appears that there seems to be insufficient attention paid to the grading and selection of seed grain," said Mr. B. J. Waters, of Coldstream in addressing a meeting of farmers at the recent Guelph Winter Fair. "Selecting the best seed from the granary for sowing is one step in advance. But selecting the best heads of grain during the time the grain is still standing, is a still greater stride in advance and is a feature which should be practised more than it is.

"The aim should be to select the best seed from only the best heads of grain. Average heads as regards size and general development, from average heads are considered better for seed than large seed chosen from small and inferior heads. If the seed is not chosen until after threshing, how are you to determine which seeds to choose? Hence the importance of

selecting the best heads in the field, from which to obtain the seed.

"A very important phase of successful farming seemed to be lacking in the shape of following systematic rotations. In most cases I found no particular or definite rotation followed. Hoe crops seemed to be the exception rather than the rule. In sections where these conditions were most prevalent, the most luxuriant growth of noxious weeds existed. Without the hoe crop, the weeds get a splendid start.

"Last year in the County of Wellington, in nine different fields competing in the Field Crop Competition there was only one having no sow thistle in it. One of the main difficulties is, that farmers don't recognize this pest until their farms are almost past redemption.

"I would recommend the following rotation: In the spring when sowing the seed grain seed with clover and a little timothy. During the first winter apply some manure. The following summer after removal of the hay, pasture the sheep on it until fall and then plow. The following spring plant corn and roots on this area but don't plow again after the hoe crop has been harvested. Some will ask—

"The answer is simply because by plowing you would bring to the surface, weed-seeds, which had been living in a dormant condition below the first surface.

"After the hoe-crop your surface soil or seed bed is cleaned. Why then, plow and bring to the surface, weed seeds, which will grow and damage the crops. By so doing you would be defeating the very object you had in view the season before—destruction of weeds."—R.B.C.

Cows above the Average

The patrons of the Acme cheese factory, near Trenton, must have an unusually fine cow judging now, from the fact that the average amount of milk per cow sent to the factory during the season was 4,030 lbs. The cows of one patron averaged 3,900 lbs.

In view of the fact that the average production per cow for all the factories in eastern Ontario last year, as shown by the annual report of Chief Dairy Inspector, G. G. Publow is considerably less than 3,000 lbs., it will be seen that the cows owned by the patrons of the Acme factory must be above the average in quality.

Items of Interest

The annual meeting of the Canadian Jersey Cattle Club has been postponed to Thursday, Feb. 3rd, at 10 a.m., Board Room of St. Ry. Co., Toronto.—R. Reid, Sec., Berlin, Ont.

The people of this country cannot afford to allow the manufacture of heavy butter, permanently. It is putting a premium on carelessness.—Chief Dairy Inspector, G. G. Publow, Kingston, Ont.

Honorable Marshall, Minister of Agriculture for Alberta assured the United Farmers' Association in annual convention last week that the Government would at once institute an investigation of the charges on railways in the transportation of grain to isolated interior towns, which he characterized as simply outrageous. The Government would take charge of a case submitted to the railway commission demanding redress forthwith. Premier Rutherford asked the farmers to prepare and submit to the Government some practical and acceptable scheme for the use of elevators and when that was done the Government would be prepared to act in giving it effect through legislation.

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&

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FOR WEEK ENDING JANUARY 27, 1910.

No. 4

COW RECORDS.—THEIR INFLUENCE ON THE DAIRY INDUSTRY*

D. Drummond, Ottawa, Ontario

The Influence is a Great One, though Difficult to Estimate. History of Records, Some things they do and some Comment on their Possibilities

IT might almost be said that we are living in a record age. We find all big commercial institutions, railways, factories, etc., keeping records of floor space, of cars, of engines and of employees, in order to find the earning power of each of them, both gross and net. In agriculture records of production are observed also by poultry keepers and dairymen. In almost all countries making any pretence as dairy countries cow records of some kind are being kept.

Probably the most valuable and complete are those of Sweden and Denmark. There they have a system of food values in connection with them, from which the cost of individual production can be very closely estimated. In this country it is only of recent date that any united efforts have been made along this line, but records seem to be growing in popularity, so that now we have official and semi-official records for 7 days, for 30 days, for 7-day periods eight months after calving, yearly records, private records of all kinds and the cow testing association records.

The reason for the introduction of the work in Canada was the remarkable revelation made wherever records were being kept of the difference between individual cows in the same herd, and of the great difference between the production of different herds. And we are not yet awake to what future records may reveal and what lessons we may learn from them.

It is impossible to calculate in dollars and cents or in pounds of milk or pounds of fat, the influence of cow records on the dairy industry. We might give illustrations of herds that have improved their average production some 20, some 30, some 40, some 50 per cent since their owners have commenced to keep records and from that calculate what it would amount to for the whole country; but we know that it does not always work out that way, and at any rate improvement takes time.

DIFFICULT TO ESTIMATE.

Who can measure the influence of this Fair? Who can tell the influence of the Farmers' Institute, or all other such institutions, and tell us its value in dollars and cents? Cow records come under the same category because they are to a very large extent educational. They teach better feeding, better business methods, better

*An address delivered at the Eastern Live Stock and Poultry Show in Ottawa last week.

breeding methods. They call forth the best efforts of the intelligent dairyman. They create a friendly rivalry between neighboring dairymen, especially if these men are disposing of their produce at the same point. They also interest the young men, and to them it is that we look for the greatest influence.

BETTER FEEDING.

The majority of farmers know that they are sending so much milk to the creamery or cheese factory, or to whatever place they are disposing of their milk. They take the total only. When that total shows signs of diminishing they, at least the best of them, start some other method of feeding and may by so doing increase the total. But ask them which of their cows are doing it or if all are doing it, and they cannot tell.

taker reflect and think whether or not he is doing his best by his cows.

BUSINESS METHODS.

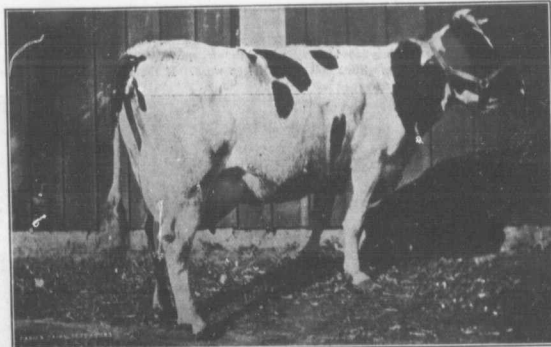
Farmers are proverbially poor business men. Many of them are satisfied if at the end of the year their bank account is increased and they feel that they can conscientiously say we have made so much honestly and without injuring any of our fellowmen. But if anyone of them was questioned as to which of his operations paid best, was it cows, horses, pigs, sheep or crops, in most cases he could not answer. Cow records have a great influence on the farmer in teaching him that accounts are useful. He learns this through making a beginning with records. He soon begins to look at the amount of feed consumed and commences to calculate the cost and find out from that which cow is most profitable or if there are any that are paying a profit. He is soon able to tell whether or not his farm operations are profitable, or whether he is as Professor Roberts says, "working for 50 cents a day and boarding himself."

Do each one of your cows pay a profit? Do you know that each does? If you don't, then keep records. The expense is small. It is business. The men who are following up the milk records are not the failures among dairymen. On the contrary they are the most successful. The production of milk and its products can be made far more profitable through better feeding and better business methods. One of the principal means towards this end is the keeping of cow records.

All breeders of the various kinds of dairy cattle have started some kind of records within the last few years. Some have adopted one kind, some another. All are more or less valuable. Some records have been started to boom the breeds; some to assist breeders in the better

selection of male animals, as well as to aid them in culling out the poorer females. They are all of too recent origin to enable us to collect data that will most effectually illustrate their influence on the dairy industry.

But when we study the history of all the dairy breeds, we find that records or reputation has played a large part in their improvement. It will be noticed that the homes of all the dairy breeds are small and restricted in area. We can easily understand how the reputation of an animal might easily be told all over the district where that breed was. Also owing to most of the produce being manufactured at home and taken to the markets, by the farmers themselves, where they were always meeting others in the same work, this and that cow or bull would be dis-



Francis 3rd, a Cow with the Highest 7 Day Record Ever Made in Canada by a Canadian Bred Cow

Under the supervision of Mr. C. S. Wood of the O. A. C., this Holstein cow, owned by D. C. Platt & Son, Millgrove, Ont., recently completed a seven day official record of 29.36 lbs. butter—the highest record ever made in Canada by a Canadian bred cow of any breed. Experts who have seen this cow claim that she is a strong candidate for the world's record. She has been twice champion in her 3 and 4 1/2 year old form, over all ages and breeds, at the Ottawa Winter Show.

Those who keep daily milk records of their individual cows are in quite a different position. Without better feeding it is impossible to properly weed out a herd. Some cows may have been receiving all the food they can assimilate and turn into milk, whereas others can make use of a considerable larger quantity and give good and profitable returns for it. The only way to discover these cows is by keeping records. There are many good cows in the country, if they were only well fed.

Cow testing work calls for the best efforts of our intelligent dairymen in providing better food, better care and attention for our hard working cows. Through records the effects of neglect, exposure and lack of proper feed are recorded. These have the effect of making the owner or care-

cussed; their stock would be criticised or praised and in this way information about good cows was spread from one to another.

FIRST ATTEMPTS AT RECORDS.

This is now all changed. The different breeds are scattered all over the world and information about them is necessary to be recorded as correctly as possible, so that parties at great distances may know something about all the ancestors of the animal they are purchasing. The first attempt at such records was in establishing herd books containing the breeding or genealogy of the animal, nothing else. These have now been published for about 50 years, and are nearly all that is required for some classes of stock. But the dairymen who was trying to improve his herd in production began to find that such records were of little help to him unless they went further and told him something about the production of the animals recorded.

We see, therefore, that our forefathers improved the different breeds of dairy cattle even with their imperfect means of recording. Are we, their successors, able to keep on improving with our better advantages, or are we to fail in the task? At no time in the history of our great country have dairymen had such opportunities for improvement as at present. At no time has dairy produce been selling at better prices. Are we going to take advantage of these opportunities? Are we going to improve our dairy herds and by so doing increase the individual production and profits? If there is anything we need in this country it is more improvers and breeders, instead of dealers in live stock.

Market Value of Good Feed for the Horse*

J. H. Grisdale, Agriculturist, C. E. F., Ottawa.

For 100 years we Canadians have been trying to improve our horses. For 30 years we have been making strenuous efforts in that line. As might be expected we have achieved something. As is much to be regretted we are still far short of what might be expected, of what is highly desirable and of what is absolutely necessary before we take the place we should in the horse breeding world. We have spent millions on importations; if importation is to prove the salvation of the industry we must spend millions more. I am not so sure, however, that in importation lies the secret of success.

I admit good breeding important and importation most certainly the basis of progress. But too many of us neglect another factor entering in no small measure into the production of the best horses of any breed, but perhaps more particularly into the development of the individual as well as the breed or breeds of heavy horses. That factor of so great weight and influence is good feeding. None will deny its necessity, few apparently consider it to be of the importance it really is. That at least seems to be the case when one observes the treatment accorded the colt by the average Canadian farmer, more particularly as he flourishes in Eastern Ontario and Quebec, but in no small measure through the Dominion.

DRAFTERS AT THE TOP.

A glance at any horse market quotations shows the general classification to be drafters, chunks, general purpose, expressors and drivers. With the exception of an occasional extra fine individual of some other class the drafter commands the top price. For instance, today the best drafters bring \$250 to \$400 each, while the next price is from \$175 to \$250 for extra good expressors or drivers; the chunk and the general purpose must be content with \$150 to \$175. The chunk and the general purpose, more particularly in this Eastern part of Ontario, far outnumber the drafters. In my opinion the great number of chunks or

*An address delivered at the Ottawa Winter Fair last week.

their chunkiness to feeding methods or rather the lack of feed. In other words "chunk" means "starred colthood." The Good Book says no man by taking thought can increase his stature, but it does not say a word about horses. Moral, get busy, feed the growing horse, see if he can't be made to grow enough to raise him two or three degrees or grades when he strikes the market.

There is no doubt it can be done. It is done in many cases, as witness the fine type of horse it is possible to find in this country, if one is willing to hunt long enough. What we want to see is every colt getting the chance to develop that is his by right of birth. By right of birth because no man unwilling to give the colt a chance should ever think of breeding.

GOOD FEEDING IS PROFITABLE.

Further, it is a profitable proposition. The spread of prices of from \$50 to \$200 between chunk and drafters shows good returns from the small extra amount of feed required to help the right bred colt past the 1,400 or 1,500 pound mark and so into the big money sort that gladdens the seller's heart and makes the buyer smile despite the long price he must pay.

The feeding is a simple matter, yet at all times requires judgment. It must begin with the dam while yet the colt is long unborn. She should work steadily at moderately heavy work. Constant and uniform work with right feeding is the thing. Her food should be somewhat different from that given the average work horses. Bran should enter somewhat more largely in the rations. Clover hay free from dust and mould should in some small measure form part of her feed. She should be kept in fair flesh and improving rather than losing in weight. She should work right up to the last day before foaling.

After foaling, work her very little and at work no likely to tax her strength and cause overheating. Shut colt up while at work. If she is

old. Give a good pasture and a little grain if possible the first summer. Keep him growing and in good flesh. Most Eastern Ontario colts are ruined between the ages of 12 and 30 months. The colt should reach the three-year-old mark in good flesh and growing rapidly.

At three years old he is worth just twice as much if properly raised as he usually sells for raised by the average farmer.

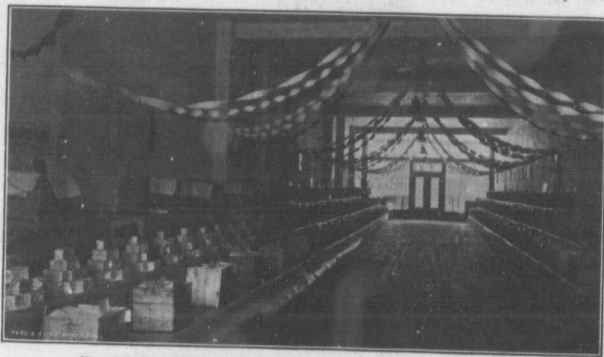
Comments on the Sheep Industry

Robt. McEwen, Middlesex Co., Ont.

Just now when interest in sheep breeding is at low ebb and farmers throughout the Province have either abandoned their flocks or reduced them almost to the vanishing point, R. H. Harding's article, which appeared in *Farm and Dairy*, January 13, is timely and worthy of consideration. Even when wool was selling as it was a few years ago, at 10 and 11 cents a pound, breeders freely admitted that there was a profit in the business. That being the case and with current prices for lambs, mutton and wool, one looks for a revival which is not yet apparent.

If the causes for this delay are recognized, remedies can the more easily be applied. The argument perhaps most frequently advanced as to why sheep are not being bred is the danger of the loss from dogs. There is serious loss we know, but there is good reason to believe that the scare head lines of the reports of losses appearing in the press, encouraged possibly by the owner of the sheep who finds this necessary in order to receive fair compensation from the municipality, deter the timid from embarking in an undertaking with this risk attached to it. When the contemplated legislation is enacted, making it obligatory upon all townships to pay not less than two-thirds value for sheep killed by dogs, a greater confidence will be established in the business.

It is sometimes asserted that arable land in Ontario is becoming so valuable that a profit can-



View of the Dairy Exhibition held at St. Thomas at the time of the Dairymen's Convention

The exhibit this year was the largest and the quality was the best on record. The exhibit was displayed in a vacant store, which was tastefully decorated. A report of the exhibition was given on page 12 of *Farm and Dairy* last week.

idle see that she has a good pasture, a little extra feed will pay. Feeding the colt through the mare is a good practice.

TEACH THE COLT TO EAT.

But teach the colt to eat early in the game. Bran and whole oats are good, one to four of oats or thereabouts. Give all it will eat. Give some hay. Wean when eating well. Keep colt always in good flesh. The first winter run loose if possible in box. If this is not possible then out every day.

Feed well all the first winter, giving all the good clean grain and bran it will eat up. It should weigh about 1,200 pounds at 12 months

not be shown through sheep. If tenants in England and Scotland can live more luxuriously than farmers do here and pay a rental of \$10 to \$15 an acre through the profits of sheep, Ontario land owners ought yet to find something attractive in the trade.

In order to fix attention more particularly on sheep and that a knowledge of all the details of breed characteristics, methods of winter and summer feeding, and the profits to be derived from the sheep breeding industry of the province, something more than at present is should be at our Agricultural Colleges. If the Professors were brought more directly in touch with the work and



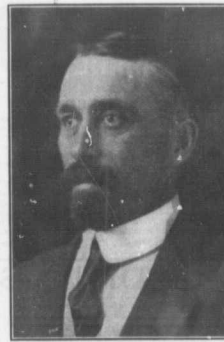
Victor Begg, Moose Creek.



E. Terrill, Wooler



D. Duncan, Don



J. W. Richardson, Caledonia

The Four Men who Stood at the Top of the List for their Respective Districts in the Dairy Farms Competition Conducted by Farm and Dairy

The extended scores of the first eight prize winners in each district were published in Farm and Dairy Jan. 31. The farms owned by these men and a number of others in each of the four districts will compete again this year to determine the best dairy farms in the province. Next year another competition will be held. Those who are likely to compete should begin to make preparations now.

their scope extended it would be to the advantage of the students returning to their life work on their farms. If the raising of cattle, horses, swine and poultry is worthy of attention surely so is an animal like the sheep, which produces both feed and clothing.

The Ontario Sheep Breeder's Association should go into the matter earnestly and take up, not only the matter concerning flocks at the Ontario Agricultural College but should look into the possibilities of having breeding and feeding, at least feeding operations, carried on at such institutions as Asylums where patients could with beneficial results be occupied in tending and caring for flocks.

Care and Management of Breeding Swine

D. D. Gray, Farm Foreman, C.E.F., Ottawa

The present condition of the hog industry with such high prices for pork makes most farmers start to do a little thinking and many are wanting to get back into the business again.

Perhaps it is a good thing for the hog industry that these conditions prevail as a great many were keeping hogs without counting the cost, or giving them the intelligent consideration that is necessary to the successful carrying on of any business. It is only on one part of the great hog industry that I wish to descant that of the care and management of the breeding stock.

BOAR

Always use a pure bred boar of whatever breed is liked best. Pure bred sires are more impressive as they have been bred for generations with a certain aim in view and litters from such sires will closely resemble each other in size and conformation. But remember that all pure bred animals are not necessarily good animals. Many pedigreed pigs now in use should have been castrated in their early days. The very fact of their being pure bred makes them all the worse as they will leave their mark on all their get and especially if bred to cross or grade sows. So have nothing to do with pure bred scrubs, see to it that whatever boar is used comes from good stock and is of good size for his age.

He will usually be able to serve when five or six months old but should not be required to do so before he is eight months old and then should be used sparingly. At this age he should not get more than one sow a day or perhaps occasionally two at most. Old boars may be got to serve two or three sows a day, with good results, if properly handled and fed. To insure the boar keeping in good service condition he

should have a chance to run about in a roomy pen or yard for exercise. Although he should be well fed he should not get too bulky a ration at this time and should be closely watched that he eat up clean whatever he gets at each time of feeding.

SOW

In picking out the sows to be kept as breeders do not be satisfied merely with the proper type desired but see that she has made good gains up to say seven or eight months of age.

At the Central Experimental Farm this year we had them go from an average of 80 lbs. or four-fifths of a pound per day up to 1.78 lbs. or one and three-quarter lbs. per day of a gain live weight at about seven months of age. See also that the young sow has at least 12 well placed teats and that she is out of a large litter. She should not be bred to farrow under a year old and better 14 or 15 months.

A short time before the mating season or before the time intended to breed the sows, they should receive a little extra attention, especially should this practice be followed with old sows. They should be so fed that they will be gaining in flesh and in good heart when being bred, this to insure large litters. After the sows have been bred it is of the utmost importance that they get a chance to take some exercise. If in the summer let them out on pasture or if in winter they should have the run of a large yard.

FEED FOR SOWS

The feed should consist of bone and muscle forming material such as bran, shorts and oats, with pasture on good food in summer, and roots and clover hay or chaff in winter.

Last winter we fed a bunch of 27 old sows at the Central Experimental Farm from November 1st up to March 13th a period of 130 days, on a meal mixture of bran and shorts in the proportion of two of bran to one of shorts. The sows received an average of about two and a half lbs. of this meal mixture 10 lbs. of roots and half pound clover hay a day. This ration costs on an average of four cents a day per sow for the total period of four and a half months.

Young sows however must be fed a more liberal meal ration to keep them in a good growthy condition.

One-fourth of an acre planted in small fruits and properly cared for will supply an average family throughout the season, but the land must be fairly rich and kept in good condition by cultivation.

How to Get No. 1 Seed

E. D. Eddy, B.S.A., Seed Branch, Ottawa

There is a wide difference between the seed of No. 1 and the seed of second quality. In fact second rate seed may be so badly contaminated with noxious weed seeds that it is dangerous to sow it on reasonably clean land. It is therefore essential that farmers wishing to sow clean seed should purchase guaranteed No. 1 goods and use every precaution to see that the guarantee is carried out. This is comparatively simple if you go about it in the right way. Do not go to your local dealer, who may or may not know good seed when he sees it, and ask for clover seed and take whatever he may give you. Go to him early in the season and place your order for guaranteed No. 1 seed.

To make sure that the seed delivered is up to standard, take a sample of each lot and send it to the seed laboratory at Ottawa for purity test. You will be sent a report giving the grade of the seed and the nature and quantity of the impurities. Then, if it is not up to standard, you can return it and demand something that will meet your requirements. The seed laboratory is always open to do work of this nature for farmers, but as yet the great bulk of the samples received come from seedsmen.

At present there are not many wholesalers who put out seeds marked No. 1. It is mostly sent out under brands, which mean nothing so far as the law is concerned. Seedsmen hesitate to mark their goods No. 1 so long as they can sell them without, as there is much danger of violating the Act when only the "Government standard," as the prohibition line has been named by the trade, has to be conformed to. In fact, they often find it more profitable to export the No. 1 seed so long as Canadian farmers will buy what they call Government standard, which, if sown at the rate of 10 pounds an acre of red clover, may give you seeds to the extent of 15,000 an acre. However, some seedsmen are now sending out seeds marked No. 1 and others will do so as soon as there is a sufficient demand from retail dealers, and that demand can only be created when farmers refuse to be satisfied with anything else.

We have two silos. Ten acres of good corn will fill them. With the alfalfa and ensilage we will have a fine lot of the best as well as the cheapest feed obtainable for our cattle as well as a little of it for our horses.—Geo. Martin, Farm Manager, House of Refuge, Waterloo Co., Ont.

Shoe Hock, Capped Hoof, Bursitis are hard to cure, yet

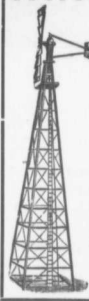
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will remove them and leave no blemish. Does not blister or remove the hair. Cures any part of swelling. Horses can be worked \$2.00 per bottle delivered, look & D. from ABSORBINE, J.E. (manning), \$1.00 (bottle.) For Sale, Veterinary, Boston, Wellington, Ontario, Victoria, Vt., Various Cities, A. J. Price, W. F. Young, P.O., 123 Temple St., Springfield, Mass. EDWARD LEE, Montreal, Canadian Agents.

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Being one of the largest growers of Seed Peas in Canada I am desirous of placing seed in good pea-growing sections free from "Weevil" or "Pea Bug." I supply the seed and contract with farmers for the product, deducting the seed supplied when crop is delivered. Prefer growing in places where a car-load of seed could be placed. For particulars, address:

W. P. NILES, Wellington, Ont.

Work of Conservation Commission

The Conservation of Canadian natural wealth of water, of mine, of forest, of soil and of citizenship such is the object of the Conservation Commission which was in first annual session in Ottawa last week. The commission is a body constituted for the purpose of collecting exact information and deliberating thereon, so as to render it of practical benefit to the country and for the purpose of advising the government on the actual questions of policy that might arise in reference to the administration of natural resources where effective conservation and economical use are concerned.

The President of the Commission, Hon. Clifford Sifton, in his inaugural address said that the real survey of the Commission included everything from the physical health of the individual to the national health of that great leviathan men call the State. To insure the first, it will attack that wasting monster called consumption. To insure the second, the Commission aims to check national waste caused by the prevalent disease "Ignorance" wherever it may be found. Inland waters must be owned and operated for national ends, not personal ends and the head waters must not be nudged at the caprice of the fortune-hunter. Forest conflagrations must cease to lick up with fiery dragon tongues those verdant sureties against flood, or drought, or famine.

IDEAL OF THE COMMISSION

Mr. Sifton's care for the farmer was strongly emphasized. He betrayed clearly the fear that "wealth might

accumulate and men decay." The danger lay in the depleted fertility of the soil, for "wherever there is a population dependent for upwards of two centuries on the soil, there is to be found the grossest poverty." In concluding, Mr. Sifton expressed his ideal for the commission "It can," he said, "exert a powerful influence in the proper direction. It may even become the embodiment of public spirit and advanced thought now that our time is come, and there is, in all human possibility, a period of long progress before us."

Dr. B. E. Farnow, Dean, Faculty Forestry, Toronto University, addressed the commission on forestry. He spoke about methods used in other countries which were applicable to Canadian conditions. Dealing with the subject of public ownership of forest lands, he showed the wonderful results in countries where the state controlled the lumber business.

IMPROVEMENT ON THE SOIL

The conservation of agricultural resources was dealt with by Dr. J. W. Robertson, C.M.G., late of Macdonald College, Que. The conditions existing in Canada and the United States, he said, were practically concurrent. In the West there was a tendency for men to take what they wanted from the land, get rich, and let the mother-or-earth look after itself. It should be remembered we were absolutely dependent on the body and the body on the soil. We looked to the soil for our food, clothing, tobacco (he did not advocate its growth), and drugs, all came from the farm. Agriculture implied suppression of weeds, restraint of damaging diseases and the preservation of beauty and fertility. It had to deal with four things—air, climate, seeds and intelligent labor.

By special invitation Hon. Adam Beck, Ontario's Minister of Power, addressed the Commission on the "Conservation of the Water Power of Ontario."

Central Nova Scotia Seed Fair

The seventh annual seed fair held in Truro, N. S., was opened on Tuesday, Jan. 11th. Owing to the inclemency of the weather during the day previous, the number of exhibits was

somewhat less than in 1909, but it was interesting to note that the quality of exhibits far surpassed anything previously shown. All exhibits were judged by Mr. T. G. Raynor, of the Seed Department, Ottawa, and Mr. S. J. Moore, of the Maritime representative of the Seed Department. The number of exhibits of grain showed the greatest decrease and it was interesting to note that careful hand selectors and members of the Canadian Seed Growers' Association carried off the majority of prizes.

The exhibits were all of particularly good quality. The potato exhibit, however, was by far the best and showed greater advancement in type, size and quality than any of the others.

The cup donated by Mr. John Stafford, M.P. for the best exhibit of six varieties of potatoes, was won in '08 by J. E. Harrison of Macan; in 1909, by A. C. Walker, Truro, and in 1910, by J. E. Harrison, Macan, Retson Brothers, Can. Truro, stood a very close second this year, and had their exhibits entered been on hand for judging, this cup, undoubtedly might have stayed in either Colchester or Halifax County. Much credit is due the exhibitors for the splendid condition in which exhibits were placed before the public.

This fair stands out prominently as a satisfactory success. Sales especially for pedigreed seed, were brisk. Many were deeply interested in the process of seed selection and the good results from this fair of 1910 cannot be over estimated.—E. S. Archibald.

Where Averages Mislead

The following chart gives the comparative yields of 248 cows in 18 Ontario herds, for the full period of 18 months. It is a part of the address given by Mr. E. Whitson, at the recent Dairymen's convention in Belleville:

Average, 5,985 lb. milk, 3.5 test,
217.7 lb. fat.
Average of 18 best cows, 7,733 lb. milk, 3.3 test, 258.3 lb. fat.
Average of 18 poorest cows, 4,206 lb. milk, 3.7 test, 156.8 lb. fat.
Best individual, 13,742 lb. milk, 3.4 test, 472.4 lb. fat.
Poorest individual, 2,670 lb. milk, 3.5 test, 94.9 lb. fat.

The chart illustrates graphically a few comparisons in the yields of 248 Ontario cows. The average yield, close on to 6,000 lb. of milk, is too apt to be taken as indicative of good all round cows. It comes as a shock to find that two such extremes as 13,740 and only 2,670 lb. are included. This shows immediately how thoroughly one can be misled by ignoring the fact that an "average" institutes no comparisons, but is simply a confusing classification of the cold deficiencies of many a delinquent. An average in connection with herd yields should immediately awaken enquiry as to what is included; otherwise, and frequently to one's loss, cows under the 3,000 lb. mark may creep into undesired credit amongst the 6,000 pounders.

On the other hand, such individuals as this 13,740-pound beauty are likely to be completely overlooked. Their light is literally shining brightly, but the befogging average drops a bushel basket over it.

Between the 18 best cows (one in each herd) and the 18 poorest there is a difference of over 3,500 lb. milk; this illustrates what is the actual difference in efficiency between cows in hundreds of herds to-day, and points to the absolute necessity of taking notice of each cow's performance separately.

We send our dollar for renewal to Farm and Dairy for 1910. We are well satisfied with the paper and would not want to be without it.—Geo. Cloyd, Milton, Ont.

How the Frost Fence "Gives" and "Takes," Like a Spring

ANY "colliers" Fence is liable to snap in certain weather conditions.

But the Frost is a coil Fence. In Winter, when steel Wire contracts, Frost coils "give" their surplus, instead of snapping like "colliers" Fence.

And in Summer, when the Wire expands, that surplus returns to the Frost coils, instead of sagging and causing the Fence to lose its shape.

And no matter how often contraction or expansion is caused, the Frost Fence always acts the same, like a Spring.

Merely Excuses

Lots of other Wire Fences have a Tension, Curve or Kink, as an excuse for "Give" and "Take." But the number of these "give" and "takes" is limited. They cannot keep it up. It isn't in the Wire or the method to do so.

Both the Frost Field-Erected and the Frost Woven Fence have extra provisions for "Give" and "Take." But no others have it. You simply cannot find another Fence which will retain its shape like the Frost.

Please remember that when buying Fence!

Make Our Own Wire

We are the only Fence Makers in Canada who Make and galvanize Wire exclusively for Fence purposes.

Wire, to give satisfactory service in Canada, should be made especially to fight off the peculiar Canadian climate, which simply knocks out any other wire made. The all Wire is not made with Canadian conditions in view.

For that reason we decided to Make and Galvanize our own Wire. So we built a Mill for Wire-making, and another for Galvanizing, and installed the most modern Machinery in use.

Thus we obtained the services of one of the most Expert Wire-Makers in America. A man with 25 years of Wire-Making experience back of him.

For that reason we Annealed so scientifically that it possesses the proper temper for Canadian conditions.

Every inch is of uniform temper, and stretches to any length of Wire. The Wire will not snap, regardless of the peculiar Canadian weather variations.

About 75 per cent. of Wire Fences rust in 12 or 15 years sooner than they should. This is because they are Galvanized too thickly.

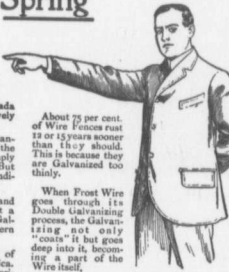
When Frost Wire goes through its Double Annealing process, the Galvanizing not only "coats" it but goes deep into it, becoming a part of the Wire itself.

Frost Galvanizing is doubly thick, yet it will not scale.

This gives the Frost Fence a life of about 20 to 25 years longer than most Fences. No peculiar climate can rust the new Frost Fence.

Send for free Booklet and Samples.

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Agents Wanted



"Give" and "Take" Like a Spring

The Feeders' Corner

The Feeders' Corner is for the use of our subscribers. Any interested are invited to ask questions of growing concern of interest. All questions will receive prompt attention.

Fodder for B.C. Horses and Cattle

I have a homestead on the foothills: one part is well watered, the other is gravelly, and I am desirous of growing fodder for horses and cattle. Would you kindly tell me what you think the most profitable to grow.—H. W. T. Canoe P.O. 2.

As forage crops suitable for conditions as described, I would suggest alfalfa, red clover, timothy and western rye grass. If it is desired to get crops the first year, then a mixture of peas and oats would be advisable. Sow at the rate of four bushels per acre of a mixture of equal parts by weight. To seed down to any of the grasses mentioned, thorough preparation of the soil is necessary. If at present in pasture or sod it would not be advisable to attempt seeding this year unless the soil is plowed very early in the spring. If plowing can be done early and it is not absolutely necessary to utilize every bit of land for forage growth this year, then it would be well to cultivate thoroughly a small area of the land till some time in July, then sow alfalfa seed 20 lbs. to the acre. Harrow and roll and leave till the alfalfa begins to blossom when it should be cut and left on the field.

The best plan would be to grow mixed crops in 1910. Sow timothy, western rye and red clover along with grain on part of land which could or would cut first. On part intended to be left till ripe or nearly so, do not sow any grass seed, but work the land after harvest, keep it clean and sow alfalfa alone the next spring.—J.H.G.

Linseed in Calf Feeding

In the feeding of calves it is found that linseed meal or crushed linseed added to skim or separated milk is one of the safest and most economical substitutes for the abstracted milk fat. Linseed approaches more nearly in composition to the genuine milk than any other food, and the oil which it contains, to the extent of 34 to 38 per cent., is easily digestible. There is, however, a risk in buying any amount of fibre in the form of a meal, as it is difficult to detect impurities when the material is sold in this condition.

One of the commonest adulterants of linseed meal is ground linseed cake. The latter does not contain more than one-sixth to one-third of the oil in pure linseed, and the relatively larger amount of fibre renders it unsuitable for giving to young calves as a substitute for milk fat. Again the meal of almost any cereal grain can be mixed with linseed meal in fairly large proportions. Before the substitution is likely to be detected. The object of such admixture is at once apparent, in that linseed cake and cereal meals cost, roughly, about one-third the price of genuine linseed. The risk would be obviated by purchasing whole linseed and having it ground at home, but the objection to this is the necessity of grinding, owing to the nature of the seed, the usual method used on the farm.

Whole linseed would be fed for at least one year. During the next week the chances are that it renders it unpalatable should be gradually brought about. Substitute each day a regular proportion of skim milk for the same amount of whole milk withdrawn. The skim milk should be fed warm, from 90 to 100 degrees F. To replace the fat removed from the skim milk as well as to furnish additional protein, is now the duty of the linseed, mixed with the milk in the form of a jelly. This jelly should be added in small quantities at first,

and slowly increased. Begin with a dessert spoonful in each portion, and gradually increase until about a cupful is being fed night and morning to the three months old calf.

To prepare the jelly, boil or steep one pound of linseed in water almost boiling until a thick paste results. Another method of preparation is to take a half-cup of ground linseed in a quart of water, and allow it to simmer just below the boiling point until a thick jelly is formed. It should be kept cool and sweet until fed.—The Dairy.

FARM MANAGEMENT

Queries About Alfalfa

I have read a lot about alfalfa clover in the dairy papers, and have decided to sow some in the spring. Would like to ask you a few questions about it: 1. What kind of soil is the best for it? 2. How many pounds to sow to the acre? Do they ever timothy or red clover with it? 4. What time to sow it? How is the best way to sow it? I was going to sow it with oats.—W. C. Leeds Co., Ont.

1. Alfalfa will do well on any kind of soil rich in plant food and in good tilth provided there is good drainage and water does not lie on the surface for more than four or five hours at a stretch at any time of the year. 2. Sow from 20 to 25 lbs. seed an acre. The heavier seeding should be followed when soil is not very rich or when seed is not very good. 3. Where it is intended to leave in alfalfa hay for any length of time, that is for more than a couple of years, it is better to sow no other clover or grass seed along with the alfalfa. 4. Where soil is rich, not too porous or dry, in perfect tilth it may be sown with a nurse crop, oats, barley or wheat. If soil is very dry, if the land is dirty or weedy or not in very good tilth better cultivate till July, then sow alfalfa seed alone. Sow broadcast after sowing grain. Divide seed into two parts. Sow lengthwise and then crosswise, half each way. Harrow lightly and roll after seeding.—J. H. Grisdale.

Farm Manure

By far the large part percentage of the plant food contained in manure is found in the liquid portion. It is especially rich in readily available nitrogen, contains high percentage of potash, but is deficient in phosphoric acid. The nitrogen rapidly escapes into the air if special precautions are not taken to prevent its loss. When the liquid and small portions of manure are mixed together, the one supplies the deficiencies of the other and a more nearly balanced ration for plants is secured.

Manure should be hauled out and spread upon the field at short intervals whenever practicable. When thus handled, the losses of valuable constituents need not be very great, but when the manure is stored for a considerable time the difficulties of preservation are greatly increased and losses are much more likely to occur. Losses in manure result from two chief causes: first, fermentation, whereby nitrogen, either as ammonia or in the gaseous state, is set free and escapes into the air. Second, by weathering or leaching, which involves a loss of the fertilizing constituents. The loss from destructive fermentation may be largely prevented by the use of proper absorbents and by keeping the manure moist and compact. Loss may also be prevented by storage under cover or in water-tight pits.

When the urine is allowed to run to waste more than one-half of the manure, or 63 per cent. of the manure value of the solid and liquid manure is lost.—U. S. Bulletin.

To Handle Manure

Which is the best way to handle manure in winter, providing you have a manure spreader? It is best to plow down or spread on top on a rather light soil.—G.W. Glen Elbe, Ont. On a light soil would suggest spreading manure on top and working in with disc harrow. If horse power is scarce or likely to be scarce in the spring, better apply manure in winter. The end of course not to be true to your hilly land. Under such conditions it would be better to haul out in spring.—J.H.G.

BARN ROOFING

The "Eastlake" Steel Shingle is the only absolutely weather-tight shingle on the market. Let us tell you why. A shingle to be proof against the severest storms must have at least a three inch overlap. The

Eastlake Steel Shingle

is the only shingle that has that much. The so-called four-lock shingles have only an inch and a quarter overlap—not enough to keep out the drifting snow and rain, so it proves the "Eastlake" is the only waterproof shingle.

The roofing problem is solved. Our free booklet, "Eastlake Metallic Shingles," tells how.



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If you are a Farmer, Stockman or Poultry Raiser and correctly answer, in your postal card or letter reply, the specified questions. THIS IS THE LATEST SENSATION AND GREATEST TRIUMPH IN THE GREAT MOVING PICTURE ART. It is a New Sensation that you can carry in your pocket and show your friends instantly, day or night, either once or a hundred times, and without a machine, either at home or on the road. The cost of a moving picture ever taken of a World Champion Horse in his wonderful 2400 INSTANTANEOUS PICTURES OF DAN PATCH and every picture show the King of All Horse Creation as plainly as if you stood on the track and actually saw Dan Patch 1:55 in one of his thrilling speed exhibitions for a full mile, 2400 distinct moving pictures taken of Dan in one minute and fifty-five seconds means twenty-one pictures taken every second all of the way around the entire mile track from the back seat of a high power automobile. You can see Dan Patch in his head let him know he is ready for a supreme effort and then you can watch every movement of his legs as he flies through the air with his tremendous stride of 36 feet. You can see his thrilling finish as he can see his career force his way through the crowd and throw a beautiful world wide smile over to greet his cheering crowd as he can see Dan Patch before you for every foot of the entire race. As a study of horse motion it is better than the actual speed camera. People to stand up all over the theatre calling "Come on Dan"—"Come on Dan". This remarkable moving picture is the most magnificent picture ever presented to the public. We have taken a part of these 2400 wonderful and sensational pictures and made them into a Newly Invented Moving Picture that you can carry in your pocket and show to your friends at any time, day or night. It does not need a machine. It does not need a curtain and it does not need a light. It is already to show instantly either once or a hundred times and creates a sensation without a machine. THIS MOVING PICTURE WILL BE MAILED TO YOU ABSOLUTELY FREE, WITH POSTAGE PREPAID, IF YOU ARE A FARMER, STOCKMAN OR POULTRY RAISER, AND CORRECTLY ANSWER THE THREE QUESTIONS.

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Unless you correctly and honestly answer the three questions.

ARE NOT A STOCKOWNER AND WANT THE MOVING PICTURES SEND ME 25 CENTS. If silver or stamps to pay postage, etc., on Moving Picture of Dan Patch 1:55 the fastest Earnest horse the world has ever seen—to you if you send me Twenty-five Cents in silver or stamps even if you do not own any stock or land, one before my supply is exhausted.

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HORTICULTURE

Vegetable Seed Investigations

E. J. Eddy at Ottawa Winter Fair

I would like to refer briefly to the work being done by the Seed Branch in investigating the germination qualities of the field root and garden seeds sold on the Canadian market. This work, which has been carried on for three years, was started with a view to determine to what extent the claim that vegetable seeds of low vitality were being sold in Canada was justified, and to collect data for the purpose of framing a satisfactory amendment to the Seed Control Act regulating the seed trade in respect to vitality. During the last three years samples have been collected from all parts of the Dominion by seed inspectors and sent to the Ottawa seed laboratory, where they have been tested for germination. Some of these seeds were taken from bulk lots but most of them were papered goods as it is generally in the latter class that the poorest quality is found. A summary of the results with some of the principal kinds of seeds tested is given on the chart. The first column of figures represents the number of samples of the different kinds of seeds tested during the past three years. The second column gives the average germination of the samples tested, the third column the standard germination recognized for good seed of the various kinds, and the last column the percentage of samples below two-thirds the standard germination.

RESULTS OF INVESTIGATION

| Kind of Seed | Number Samples Tested | Average Germination | Standard Germination | Per. Below 2/3 Standard |
|--------------|-----------------------|---------------------|----------------------|-------------------------|
| Beans | 140 | 78 | 90 | 16 |
| Peas | 80 | 87 | 17 | 17 |
| Cabbage | 270 | 75 | 33 | 14 |
| Radish | 300 | 85 | 95 | 9 |
| Carrot | 220 | 80 | 86 | 6 |
| Turnip | 275 | 80 | 95 | 13 |
| Parsley | 43 | 51 | 65 | 30 |
| Cucumber | 235 | 82 | 90 | 3 |
| Wax melon | 48 | 84 | 92 | 2 |
| Water melon | 60 | 75 | 90 | 13 |
| Squash | 67 | 73 | 90 | 22 |
| Pumpkin | 122 | 89 | 95 | 5 |
| Citron | 30 | 79 | 92 | 10 |
| Onion | 243 | 67 | 90 | 29 |
| Tomato | 141 | 79 | 90 | 13 |
| Parsnip | 15 | 75 | 85 | 38 |
| Salsify | 39 | 60 | 85 | 46 |
| Camellifer | 88 | 79 | 90 | 7 |
| Field corn | 122 | 89 | 95 | 5 |
| Sweet corn | 164 | 79 | 95 | 17 |
| Spinach | 55 | 48 | 90 | 73 |
| Lettuce | 22 | 42 | 90 | 6 |
| Pepper | 32 | 42 | 70 | 32 |
| Leek | 25 | 51 | 90 | 68 |
| Beet | 249 | 146 | 160 | 13 |
| Mangel | 41 | 140 | 150 | 12 |

Speaking generally, it may be said that the seedsmen of Canada are supplying vegetable seeds of good vitality, but a glance at the fourth column of the table will show that there is still considerable low grade seed being sold. In fairness to our most reliable seedsmen, it should be stated that the fourth column is made considerably larger than it otherwise would be by the samples from a few wholesale dealers who appear to make a practice of sending out cheap seeds of low vitality, so that the average of the samples from the more reliable dealers is considerably higher than the general average here given.

VEGETABLE SEED TRADE

The amendment to the Seed Control Act will make it illegal to sell seeds of any quality the vitality of which is not up to at least two-thirds the standard recognized for good seed, unless the percentage germination is marked on every bag or package containing such seed. The fourth column of the chart will indicate the extent to which the trade in vegetable

seeds will be affected. The standard of germination for cereals, timothy and clover seed is 95 per cent., so that the minimum percentage germination for seeds in these classes will be 64 per cent.

TO RAISE THE STANDARD

But while the trade in vegetable and field root seeds is on a fairly satisfactory basis so far as vitality is concerned, even the most careful seedsmen are always in danger of being supplied with comparatively poor seed through unfavorable weather conditions during the ripening period, or through some other cause, and the purchaser should safeguard himself against the possibility of partial crop failure through sowing seed of low vitality. Many farmers have found by experience that heavy losses have been sustained in this way and it is best to use every precaution to prevent them.

The quality of the field root and vegetable seeds sold in Canada could be considerably improved if the farmers would insist upon having, and be willing to pay for, the best obtainable stock. Practically all of our stock is imported, but we do not get the best seed, which is that grown by specialists under inspection, because our seedsmen claim that they cannot get purchases of high class seed in competition with inferior stock grown by farmers without responsible inspection, which of course can be sold at a much lower price. It is therefore possible for us to obtain goods of a much higher standard, not only in regard to vitality but also true-ness to type, if we could get our seedsmen to understand that we want seeds of the first quality, and are willing to pay for them. This should be the first step toward general improvement in the trade. Then every grower or merchant concerned should set himself against possible loss by purchasing his seeds early and testing them for vitality before sowing. This can easily be done by making tests at home, in the case of one of between pieces of moistened blotting paper or flannel cloth, keeping the seeds at the temperature of an ordinary living room. This will give approximate results, or, in the case of the tests made in the seed laboratory at Ottawa, free of charge.

Niagara District Fruit Growers

At the meeting of the Niagara Peninsula Fruit Growers' Association, held at St. Catharines this month, a resolution was introduced to the effect that a systematic and comprehensive census of the area and acreage of the various fruits grown in the district be taken with a view to arriving at a definite estimate, from year to year, of the probable output, and that with this end in view the assistance of the Dominion and Provincial Agricultural Departments be solicited. This was carried.

President Bunting praised the Board of Railway Commissioners for the attention paid to the complaints against the transportation companies. A letter was read from Secretary Cartwright of the board to the effect that a decision in regard to the complaints would soon be handed out. On motion of Mr. Robert Thompson of this city, and Mr. J. W. Smith of Winona, the committee on transportation was urged to press for a decision against the rates and conditions in connection with the carriage of fruit by express companies. The resolution also called attention to the advantage of securing an order compelling the companies to put all the distributing centres in the west on the same basis.

The association decided to hold institute meetings in the district. Arrangements will be made for meetings at Fonthill, Stoney Creek, Grimsby, Beamsville, Jordan, Winona, St. David's and St. Catharines.

Christmas Trees from Canada

Editor, Farm and Dairy.—The following is a clipping from the *Toronto Telegram* regarding shipping Christmas trees from Canada to the United States:

"New York, Dec. 17.—The price of Christmas trees and holly has gone



A Handy Spraying Outfit for Small Orchards

With this rig small plantations of trees and bush fruits can be sprayed conveniently. It is useful also in the field and garden. Note the platform around the barrel for standing on when trees are too tall to reach top from the ground. The outfit illustrated is used by Mr. E. J. Messenger, Bridgetown, N. S.

up this year at a surprising rate. The reason assigned by some of the dealers in the holiday green, is that the supply in the Catskills, which has hitherto been sufficient for this city

and the surrounding country, has fallen to such a degree that it became necessary to import trees from Canada for the festive season. This means a cost of from \$6 to \$8 a carload for import duty alone as well as extra transportation. New York prices will range from 100 to 125 cents of Christmas trees each year and this year the price will fall from 25 cents to \$25 a tree. Spruce trees cannot be used, as cutting them is forbidden by the Forestry Bureau, as they grow into good lumber. Balsam which never amount to much are the principal variety sold as Christmas tree now."

We as a people are standing in our own light when we allow such a trade to be carried on—thousands of fine, young spruce are taken every year. The writer some years ago while in the Algoma district, saw some of the destruction carried on by those engaged in this business. Where suitable young trees were not available, large ones were cut down and the tops only were taken. They worked a wholesale destruction of fine young spruce and other evergreens which should be stopped. Surely the Department responsible is aware of the harm being done. Then why is it permitted?

Farm and Dairy is at present engaged in a praiseworthy campaign for reforesting. We know it will gladly help to bring about some legislation to prevent this wholesale slaughter of our young forest trees.—W. J. Stevenson, Ontario County, Ont.

In fighting Canada thistles, it should be remembered that the adoption of a three or four year rotation in which is seeded clover for one year and this followed by a hoe crop, is the easiest and quickest way to handle this one time formidable foe.

Potash Means Profit

Every Farmer, Market Gardener and Fruit Grower, who has not already done so, should test the truth of this statement by using Potash this year. No better resolution can be made for the New Year.

Potash is an absolutely Indispensable Ingredient of a Complete Fertilizer and may be obtained from all leading Fertilizer Dealers and Seedsmen in the highly concentrated forms of

Sulphate of Potash and Muriate of Potash

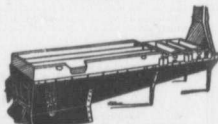
If there is no dealer in your locality who handles Fertilizers, write us and we shall advise you where you can get supplies. For the benefit of dealers and others requiring Potash in Car Load Lots, we would mention that our Head Office has established a Sales Agency at Baltimore which will sell such quantities at Considerably Reduced Prices.

Write us for particulars and Free Copies of our Bulletins including: "Fertilizers: Their Nature and Use," "Fertilizing Orchards and Gardens," "The Potato Crop in Canada," "The Farmer's Companion," etc., etc.

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Many makers of Maple Syrup delay buying their requirements until sap runs, expecting their orders to go forward at once. February and March are our busiest time. It would be to your interest to buy now and avoid delays. We make the Champion Evaporator in 22 sizes for large or small sugar groves. Write us to-day for booklet.

THE GRIMM MFG. CO.

58 Wellington St., MONTREAL

POULTRY YARD

Hens Not Laying

My hens are not laying very much, and I think perhaps the reason is, they do not get any meat, except separator milk. Where do you get your beef scrap? Do you like it as well as horse scrap?—P. M. Vandreuil, Que.

Just at this time of the year hens are not laying well anywhere, especially if they have been doing well during the summer, and they are likely to lay for a month or six weeks, no matter how they are fed. Early pullets, however, or even later pullets, may hatched, should be getting into egg now, and if the pullets and hens are divided I would endeavor to give more meat to the pullets than to the hens, it should bring better returns. If they are fed with separated milk they do not require so much meat. A little, however, makes an agreeable change and should give good results. The horse meat you speak of is manufactured in Montreal. It is just as rich as the ordinary beef scrap, and a little cheaper.—F.C.E.

Sick Turkeys

I desire your advice on sickening turkeys. I have a flock of 50 which are poor, and do not care to eat, but stand around all gathered up. Some are scoured badly, but I cannot seem to shut them up? What kind of feed should be given—whole grain? I ought to say that the birds are in the case of a week ago, over ate and have not been right since; they are very mopy and dull. It was thought they ate, I have been feeding them oats and barley mixed whole.—R. E., P. Q.

Your turkeys have an attack of indigestion caused by eating an overdose of buckwheat, cod liver oil or Epsom salts in a mash at the rate of a teaspoonful to each bird. It will be quite necessary to get them cured by their indigestion before you can put any flesh on them, it might confine them in a pen as long as they are eating well, but should they be dissatisfied and want to get out, an occasional opening to the open will help them. You could also give them in their feed a little poultry spice such as Carnafac, Spratt's poultry feed, Herbageum or in fact any good condition powder, such as is sometimes fed to stock. This will give them a good appetite and will help them to lay on flesh more rapidly. If you have ground grain, such as oats, wheat, and barley, it might be well to give them one feed of this a day, and the other feed being grain. If you can give them milk to drink, and mixed with ground grain, so much the better.—F.C.E.

Winners in "Poultry for Profit" Contest

The names of prize winners in the unique "Poultry-for-Profit" contest recently held by the Leo Manufacturing Company of Pembroke, Ontario, have just been announced. This contest is of more than passing interest to Farm and Dairy readers—a fact fully demonstrated by the large number of entries made. Inaugurated with the idea of gauging the interest taken in poultry raising in Canada and with the aim of showing the extent to which the industry may be developed—how profitable it may be made, the contest took the form of an offer of cash prizes aggregating over \$500 to the most successful poultry raisers in the Dominion.

The individual prizes were not large, a point which makes the results of the contest of more interest than ever showing, as it does, that the interest taken was not for the cash value of the premium but rather for the pleasure of advancing the cause of raising "Poultry-for-Profit."

In awarding the prizes, Mr. A. G. Gilbert, Chief of the Government Poultry Department at Ottawa, wrote the Leo Manufacturing Company as follows: "Herewith I long to hand you the list of prize winners in the Peerless Poultry-for-Profit Club contest, in which your firm offered \$500, divided into 103 cash prizes for the most successful results in poultry-raising. I desire to first express my appreciation of the manner in which you so honorably carried out the arrangements made, and to whom you consented to act as judge of the contest, that you should not even suggest the method of judging or interfere in any way whatever with the awarding of the prizes. The winners have therefore been named on the merits of their work. I desire to express sincere thanks to Prof. F. C. Elford, of MacDonald College, Ste. Anne de Bellevue, Que., my friend and colleague, for the assistance he so kindly granted me in the task of judging. I consider the competition a complete vindication of the stand I have, for years past, taken to insist on the solute necessity of the Incubator and Brooder to the exigencies of all farmers or other poultry raisers. This contest effectually disposes of the carrying over of eggs, hatching and rearing." The success with which these winners have met, effectually proves that it is possible to make poultry raising pay big money properly it is properly conducted. Peerless Outfit and the advice and help of the Peerless experts is invaluable to any Canadian poultryman.

The winner of the first prize in the contest was J. D. Boies, of Violet, Ont., who pocketed an even \$100, as the result of his excellent work. The second prize of \$50 was awarded to J. W. Russell, 218 North North St., Port William, Ont. Jacob Whiting of Workman, Sask., took the third prize, \$25. Ten prizes of \$10 each were won by the following: H. C. Whitton, Tremblay, P. Q.; A. H. Graham, Hawthorne, Ont.; Oscar Peterson, Lac du Bonnet, Man.; Jas. Carmichael, Davis Mills, Ont.; Mrs. S. G. Irish, Sedgewick, Alta.; Mrs. Jas. Taylor, Arron Park, B.C.; Geo. H. King, Korah, Ont.; W. S. Philp, McAulay, Man.; Eubank Aylesworth, Bruce, Alta.; Mrs. J. Steward, Dalmeny, Ont. Twenty prizes of \$5 each were awarded to: A. A. Hicks, Webbwood, Ont.; Walter O. Saunders, Port Hope, Ont.; A. S. Morsen, Bridge-town, P.E.I.; G. C. Gaston, Craig-hurst, Ont.; Jos. Dietrich, Wanda, Alta.; Wm. C. Bruce, Valley, Sask.; Mrs. S. E. Wright, King Edward, Man.; Frank Bryant, Alma, N.S.; Mrs. E. A. Riddle, Ernfold, Sask.; J. J. Hales, Chatham, Ont., P.O. Box 701; Mrs. M. W. Weatherston, Strathclair, Man.; F. W. Faine, Beaver-lake, Alta.; W. G. Lett, Egansville, Ont.; Miss A. E. Fauner, Lamerton, Alta.; Ernest Hooper, 649 Clark St., Edmonton, Alta.; Mrs. S. Saunders, 505 St. Falls, Ont.; Geo. M. Killam, Elgin, N.B., P.O. Box 53; W. R. Danby, Antler, Sask.; Miss M. McMaster, Smithfield, Ont.; Arthur Poppleton, Edmonton, Alta. The 20 winners of the \$3 prizes were: Geo. A. Peart, Gushyboro, N.S.; Jos. Steele, Villiers, Ont.; Mrs. T. Grayson, Fort, Sask.; A. Longley, Paradise, N.S.; A. C. Crowthers, Red Willow, Alta.; A. F. Hill, Bewell, Alta.; S. G. Jones, Rowan Hill, Greenwood, N.B.; Mrs. H. E. Hurst, Adair, Sask.; Frank Wright, 530 3rd Ave. W., Calgary, Alta.; Mrs. E. Seymour, Manitow, Man.; Roy Kondrick, Reston, Man.; G. N. Ross, Caledonia, N.S.; Mrs. W. G. Hill, Humber, Alta.; M. C. Armstrong, Mount Albert, Ont.; Mrs. J. G. Scott, Minto, Man.; Jas. Buckner, Greenville, Ont.; W. Bushy, East View, Ottawa, Ont.; Mrs. J. A. Harris, Tramore, Ont.; Geo. H. Brady, Ranfurly, Alta.; O. E. Lovess, Moose Jaw, Sask. Twenty-five prizes of \$2 each went to: J. T. Lacy, Swift

Current, Sask.; Mrs. J. E. Baker, Springhill, Ont.; Chas. McCurrach, Merton, Ont.; H. P. Woodburn, Cummings Bridge, Ont.; W. A. Hill, Wolseley, Sask.; Mrs. W. F. Fisher, Korah, Ont.; E. R. Plummer, Lloydminster, Sask.; Mrs. A. Collins, Green Ridge, Man.; J. Anderson, Bromley Line, Man.; J. Laurens, Willow Range, Man.; Martin Yarsveldt, 565 Düluth Road, Port Arthur, Ont.; J. H. Bleecker, Frankford, Ont.; W. H. Ziegler, Manor, Sask.; Douglas Brenton, Corbyville, Ont.; Wm. Steele, Valleyfield, P.O. Box 58; Mrs. F. G. Roper, Whittingham, Edgely, Sask.; John Pearson, Sidlano Ranch, Millarville, Alta.; J. T. Marcey, Barrie, Ont.; Mrs. Ramkin, Vermillion, Alta.; Mrs. S. Brigg, Creelman, Sask.; Mrs. Frank Holder, Albert Canyon, B.C.; Harry Barish, Wapella, Sask.; A. R. Hoag, Seven Persons, Alta.; L. Olaf Primm, Myrtle, Man.; C. M. Griffiths, Cheunde, Alta. Twenty-three prizes of \$1 each were awarded to: Mrs. Alex. Fraser, Merivale, Ont.; Mrs. J. Sharpe, Minnedosa, Man.; S. Blanchard, 32 Curtis St., Brantford, Ont.; Jno. Thompson, Rupert, P. O., Que.; Mrs. A. Shoults, Green Ridge, Man.; John King, Adamsville, Ont.; Mrs. Wallin, Glen Avon, Sask.; Alex. McDonald, Oakland, Man.; E. S. Robinson, Bokehurg, Ont.; Mrs. Thos. Hill, Norgate, Man.; Mrs. Ino. Doran, Arron, Ont., Box 101; Thos. Bishop, 84 Russell Ave., Ottawa, Ont.; Jas. H. Shaw, 1222 7th Ave. E., Calgary, Alta.; Peter C. D. Garrah, Waldheim, Sask.; Geo. W. Gouldie, 64 Wellington St., Hull, Que.; Mrs. T. A. Howes, Quincy, Sask.; Mrs. J. W. Brown, Benito, Man.; O. Skappell, White, Sask.; L. A. Groggier, St. Boniface, Man.; W. H. Emmerson, Eyebrow, Sask.; Wm. Knox, 318 Robertson St., Port William, Ont.; P. Holder, Summerland, B.C.; J. C. Hodge, Macleod, Alta.; Helen Olive Summer, Rivereque Barre, Alta. On request, Farm and Dairy readers can secure the full text of Prof. Gilbert's letter that accompanied his decision, together with an invaluable free book, "When Poultry Pays." We would advise those of our readers who are interested in increasing their profits from poultry raising to write for this interesting literature to the Leo Manufacturing Company, Limited, Dept. D.F., Pembroke Street, Pembroke, Canada.

FURS

Do you trap or buy Furs? In Canada's largest dealer, I pay highest prices. Your shipments solicited. Express charges, rest promptly. Also largest dealer in Beedies, Sheepskins, etc. Quotations and shipping tags sent free.

JOHN HALLAM, TORONTO

Poultry Pointers

Look out how you stamp your eggs. The stamp will never lie unless there is a lying man at the handle.

Do not allow anybody to come into your hen house and scare your birds. It is one of the worst things that can be done.

Begin your fight against things that worry the hens now. Mites and such things never wait for a better invitation than a few days of neglect. Clean up; keep clean.

To perpetuate health in a flock of fowls breed only the robust and healthy specimens, making sure that both parents are of healthy and prolific ancestry. Never under any circumstances use a male that is unsound, but rather seek to have him as nearly a perfect specimen as possible.

ELM GROVE POULTRY FARM

Rose Comb Brown Leghorns, Silver Grey Dorkings, Light Brahma, Barred Rocks, Mammoth Bronze Turkeys, Embden Geese. Also splendid varieties in E. G. Brown Leghorn Cockerels and Pullets; also in Housen Ducks. Write for particulars to J. H. RUTHERFORD, Box 62 Caldon East, Ont. Member of the Leghorn Club of Canada. Telephone 7 'em 8 Bolton

J. R. HOPE, VILLIERS, ONT. Who Wins and Golden Wyandottes, Winners at Toronto and Peterboro, including Silver Cup. Cockerets for Sale. Eggs in season.

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TWO CENTS A WORD CASH WITH ORDER

BARRED ROCKS—Winners at the leading shows of Canada. High grade stock at bargain prices. Write for wants—Leslie Kane, Freeman, Ont.

FOR SALE—Two Peerless incubators, 120 eggs, 200 eggs, only run one season; also some Barred Rock and Black Minorca yearling hens, few Black Minorca pullets, all well bred. Quantity of netting, 4 and 5 feet; will sell at half value for retail sale.—F. E. Oliver, Lorne Park, Ont.

"Peerless" The fence that stands up against every strain

Our heavy all No. 9 PEERLESS fence, made from hard steel, English Wire, has double the strength ever required in a wire fence, and is galvanizing by the electric arc; stands twice as much as that on ordinary fence wire. This means many years longer life—greater value. Do you want the best?

the fence that saves expense

because it needs no repairs and lasts a lifetime. It is just that destroys wire fences. English Wire Manufacturers know how to prevent this. To this English Wire add the PEERLESS method of construction and the PEERLESS lock and you have a fence without a rival. We are manufacturers of high grade farm, poultry, ornamental fencing and gates. Write for book.

THE DANFORTH WIRE FENCE CO., LTD. DEPT. E, DANFORTH, ONT., WINDSOR, MAN.

READING FOR POULTRYMEN

Special Clubbing Offer, FARM AND DAIRY and POULTRY REVIEW, One Year, for only \$1.10. Regular price of both, taken separately, would be \$1.50. Subscribe now.

Clubbing Offer for the Two Papers, \$1.10

A SUCCESSFUL WINTER FAIR AT OTTAWA

The winter fair held at Ottawa, from Monday to Friday of last week, was a great improvement over all previous shows of the kind ever held in this city. The paid admissions in spite of unfavorable weather part of the time, were almost 100 per cent. greater than they were last year. Taken all around there was a distinct improvement in the number of entries in the quality of much of the stock shown and in the general interest manifested. The people who were present seemed to go away well satisfied with what they had seen.

The number of horses shown was about 40 per cent. greater than last year. There was a slight increase in the number of poultry exhibits. The poultry show is now the largest held in Canada excepting only the one at Guelph. The entries of beef cattle, and sheep were about the same in number as last year. In the hog classes there was a slight falling off in the number of entries due possibly to the keen demand for having off many of the breeders short of good stock.

After some ten years or so effort the management of this show appears to have overcome the difficulties that have confronted them and from now on the Ottawa Winter Fair may be expected to grow rapidly in popularity and in educational value. The addition of the exhibit of horses has gone far to add the me and interest to the show that it lacked for many years.

PROMINENT SPEAKERS

The principal speakers at the opening of the show were Hon. Sydney Fisher, of Ottawa; Hon. J. S. Duff, Toronto and Hon. Justice Riddell of the King's Bench Division, High Court of Justice, Ontario. Hon. Mr. Fisher thought that one of the reasons for the high prices of farm commodities was the continual rush from the country to the city. Farmers should not rush in and out of certain lines of farming as many have been inclined to do. Had our farmers not stopped raising hogs the way many did when prices were low, they would have been able to make a large profit from hogs now prices are high.

Hon. Mr. Duff hoped that the farmers of the two sister provinces of Ontario and Quebec would enter into a friendly competition in the showing of farm products at the Ottawa show.

THE DAIRY TEST

As usual, considerable interest was manifested in the dairy test. A table of the prize winners is published elsewhere in this issue. While there were not as many exhibitors as there were last year the number of animals that competed was slightly larger. The swissalpe cow was a Holstein, Rhoda's Queen, owned by Neil Sang-

ster of Ormstown, Que. She gave 261.7 lbs. of milk during the three days of the test.

THE LECTURES

A number of splendid lectures were delivered in the lecture room. Some of these were well attended, the lecture room hardly being large enough to accommodate the crowd. At others, however, the attendance was so poor that the addresses had to be called off.

Elsewhere in this issue are published extracts of the addresses of Messrs. H. Grisdale, of the Experimental Farm Ottawa; D. Drummond and E. D. Eddy of the Seed Branch, Dominion Department of Agriculture, Ottawa. Extracts from the address of A. D. Harkness of Irem, on "Soiling Crops" and of T. G. Raynor on "The Production of Improved Seed" will be given later.

The addresses most enjoyed were those illustrated by live animals including one on "Market Classes of Horses," by Dr. H. G. Reid, of Toronto. "How to Breed Horses of the Different Market Types" by Wm. Smith of Columbus, "The Harsh Value of Good Feeding," by J. H. Grisdale, "The Conformation of Beef Cattle," by Capt. J. E. Robson, of London, and "Feeding Beef Cattle" by John Gardhouse, Hightfield. Some excellent addresses on the handling of poultry were given by A. P. Hillhouse, of Bonville, Que., and by F. C. Eford, manager of the Poultry Department, Macdonald College, Que.

THE EXHIBIT OF HORSES

The principal exhibitors of horses were Smith & Richardson of Columbus and Robt. Ness & Sons of Howick, Que., who carried off a large share of the prizes with animals of high quality. Other successful exhibitors were Messrs. B. Rothwell, of Ottawa, who showed Clydesdale and Hackneys, Adam Scharf, Cummings Bridge, Dr. R. E. Webster, Ottawa, T. B. MacAnlay, Hudson Heights, Que., Robt. Hunter & Sons, Maxville; Hon. Clifford Sifton, Chas. Groat, Brooklin; Fred Garbutt, Lambton Mills; and G. H. Pickering, Brampton.

The Clydesdale championship was won by Smith & Richardson and the reserve championship by Robt. Ness & Son. Robt. Hunter & Sons captured the championship for the best Canadian Clydesdale, the reserve championship going to Smith & Richardson. The award for the best Clydesdale in the show was taken by Smith & Richardson, the reserve championship being awarded to Robt. Hunter & Sons. Smith & Richardson also won the championship for Clydesdale or Shire mares of any age. The Hackney championship went to G. H. Pickering, Brampton. The principal winners in the light horse classes were

Hon. Clifford Sifton and Dr. R. E. Webster of Ottawa.

THE BEEF CLASSES

Senator W. C. Edwards was the leading winner in the beef classes. His winnings included 1st and 2nd on two year old heifers, 1st and 2nd on yearling heifers, 1st and 2nd on heifers under one year, and the championship for the best beef Shorthorn. The latter award was won by Emma 47. This heifer defeated the champion steer at Guelph which was also the 5th prize yearling steer at Chicago.

Leading exhibitors and prize winners in the beef classes were A. A. Armstrong, of Fergus in Herefords; D. McCrea of Guelph in Galloways; Jas. Leask, Greenbank; Jos. W. Barnett, of Brooklin; Alex. Dynes, of Ottawa; Wm. Ormiston & Son, of Columbus; B. Slattery, Ottawa and A. A. Armstrong of Fergus, in the grade classes.

AWARDS FOR SWINE

The principal winners in the swine classes were Jos. Featherstone & Son, of Streetville; Alex. Dynes, of Ottawa; A. H. Foster, of Kars and Wm. A. Wallace of Kars and Robt.

Poultry Magazine Number

The next issue of Farm and Dairy (February 3rd) will be a special Poultry Magazine Number. It will have the first of a series of eight special numbers, to be issued during 1910., similar to those published last year.

Tell your friends about this special poultry feature and get them to subscribe to Farm and Dairy, having their subscriptions start with this special number. Farm and Dairy, published as it is, week with its magazine number and illustrated supplements, is a great dollar's worth. Have your friends avail themselves of it.

The last forms for this number go to press early Monday morning. Advertising for that issue can be handled as late as noon on that day, January 31st.

A. Heron of Billings Bridge. In the dressed carcass competition the successful competitors included Geo. R. Bradley, of Carletonby.

SHEEP CLASSES

The winners among the exhibitors of sheep included J. Lloyd Jones, Burford; J. W. Lee & Son, Simco; Edward Ward, Greenbank; Telfer Bros., Paris; W. E. Wright, Glanworth; Adam A. Armstrong, Fergus; J. & D. Campbell, Carletonby; W. A. Wallace, Kars; Geo. Baker, Simco; R. H. Harding, Thorndale and Geo. R. Bradley, Carletonby.

Training Collie Dogs

To gain the best results and secure the full worth of a collie dog as a stock dog I would say take him while yet a little puppy, and I strongly emphasize this advice. There are many reasons why we favor the little puppy to the dog nearly or quite grown, says a writer in the Breeder's Gazette. Most collies are sensitive and suspicious, of a fine temperament and this characteristic often makes them appear rather cowardly than brave while cowardly really is not a part of a well-bred Collie, who should be properly cared for and considered up to maturity. He should have plenty of courage.

A puppy never should be permitted to have a place of refuge, where on hearing a slight noise or unusual disturbance of any kind, or at the sight of a stranger, he can run and hide away. He is almost certain to take advantage of such a retreat whenever he has the least cause to be alarmed,

and the habit becomes the next thing to nature with him, and when once formed it is quite difficult to overcome it. If, on the other hand, he is kept under conditions where he can see all that may be doing and so become familiar with active life, learning that noise and strange persons do not harm him, he will develop plenty of courage, without which there is but little hope of great usefulness.

FIRST LESSONS

If the puppy exhibits good courage it matters but little whether his training begins. First teach him his name and to come when called, to keep back, "lie down," and similar acts, heeding well these common commands. Then as he is taught to drive use gentle cattle which are easily handled. Let him keep back of a stock with you at this period, when you drive the cattle to and from the field or pasture without undertaking to teach him, for as he learns by observation he must have the example made plain. He will quickly show a desire to help and then you may take the first steps of the act, encouraging him in it, and by following up this mode of management he will soon become a driver at the heel, and this should be well established before other work is attempted, giving him plenty of practice, for it is the chief work of his life as he drives the stock in his daily work. When he once becomes a good driver the work of taking a positive interest in the work, he then can be easily taught to turn the stock to the right or left, to head them off, stop them, or go alone into the distant fields and bring up cattle to the barn. He should not be allowed to drive fast, that is to hurry the stock, as in this way he is apt to become careless or develop a disposition to be too anxious, and a moderate worker will succeed the best.

PRECAUTIONS TO OBSERVE

A great mistake may be made and an otherwise good dog become utterly developed in his training and his usefulness lessened by the owner being too anxious for the dog to know it all at once, and being over-hasty in scolding or punishing the dog for some error in his work when he really did not understand what was wanted. Never scold the dog for your own errors or when he fails to understand your meaning, though it require great self control. They are not here for vent purposes. All investigation depends on the faith of somebody. Some one fully believed in the hidden mystery and by persistent work for the desired end gained it. We must believe our little Collie capable of great things and then with careful persistence and clear, distinct methods guide him until he sees and attains to the idea of the lesson and when he does the work is done. Encourage him to him which if given serves to intensify his desire to repeat the act for the master he loves. He has a wonderful memory never forgetting the thing he has learned to do. He should be firmly reared for the care and time used in making the lessons plain.

Corn silage is one of the best foods fed on the farm. It is not good however, when fed in excess. Any silage having more protein should be fed with it. Wheat bran, when cheap, gives good results when fed with silage but or recent years it has been extremely high in price. Alfalfa will take its place.—Henry Glaninning, Manilla, Ont.

Upon well drained land, the clover plant is the best sub-soiler we can have, as it sends its long roots down into the soil, where its little fibres gather the mineral matters, the phosphoric acid and potash, storing these up in the stricture of the plant. Here they are held and ready for future crops.—Thos. McMillan, Huron Co., Ont.

DISPERSION SALE

OF OVER

40 HEAD HOLSTEIN-FRIESIAN CATTLE

At MADOC, MARCH 25th, 1910

Including the great bull, SARA JEWEL HENGERVELD'S SON, whose dam has an A.R.O. butter record:

In 7 days of 28.12 lbs.

In 30 days of 110.18 lbs.

and the only cow in Canada that ever produced in official test one hundred pounds of milk in one day.

All the females are enough to breed are in calf to this great bull, and by the time of the sale there will be 30 calves sired by him.

Catalogues will be ready by March 1, 1910. Postively no reserve

Further particulars later

J. A. CASKEY - - Madoc, Ont.

Dairy Test, Eastern Ontario Live Stock and Poultry Show, 1910

| Name of Animal and Exhibitor. | AYRESHIRE | | Points for Fat. | Points for solids Net fat. | Points for Lactation. | Total Points. |
|--|------------|----------------|-----------------|----------------------------|-----------------------|---------------|
| | Lbs. Milk. | Per cent. Fat. | | | | |
| Ayrshire Cow, 48 mos. and over. | | | | | | |
| 1st prize—Scottie, H. & J. McKee, Norwich | 138.6 | 3.8 | 150.65 | 43.82 | 6 | 195.140 |
| 2nd prize—Sarah, 2nd, H. & J. McKee, Norwich | 167.8 | 3.3 | 138.175 | 46.74 | 4.9 | 185.549 |
| 3rd prize—Victoria, H. & J. McKee, Norwich | 135.6 | 4.2 | 142.375 | 38.664 | 1.2 | 180.439 |
| Ayrshire Cow, 36 mos. and under 48. | | | | | | |
| 1st prize—Queen Jessie of Springhill, H. & J. McKee, Norwich | 126.6 | 4.4 | 133.75 | 33.99 | 3.5 | 171.249 |
| 2nd prize—Sara's Sarah, H. & J. McKee, Norwich | 129.5 | 3.5 | 112.675 | 36.339 | 2.7 | 151.914 |
| Ayrshire Heifer, under 36 mos. | | | | | | |
| 1st prize—Scottie's Sarah, H. & J. McKee, | 109.1 | 4.6 | 125.45 | 32.106 | — | 157.556 |
| 2nd prize—Peggie Murphy, H. & J. McKee, | 109. | 3.6 | 96.10 | 30.999 | — | 129.099 |
| HOLSTEIN | | | | | | |
| Holstein Cow, 48 mos. and over. | | | | | | |
| 1st prize—Rhoda's Queen, N. Sangster, Ormatown | 251.7 | 3.0 | 188.325 | 62.070 | 1.2 | 251.695 |
| 2nd prize—Sherwood Daisy, T. A. Spratt | 186.1 | 3.6 | 167.475 | 49.575 | 1.8 | 237.928 |
| 3rd prize—Maudie De Koy, T. A. Spratt | 83.5 | 3.7 | 77.225 | 22.242 | 10. | 109.467 |
| Holstein Cow, 36 mos. and under 48. | | | | | | |
| 1st prize—Pauline Posch, N. Sangster | 181.7 | 3.0 | 136.375 | 46.278 | — | 182.553 |
| 2nd prize—Queen E. T. A. Spratt | 133.7 | 3.6 | 130.325 | 38.544 | 1.5 | 168.369 |
| JERSEYS | | | | | | |
| Jersey Cow, 48 mos. and over. | | | | | | |
| 1st prize—Regia's Flower, N. Sangster | 82.9 | 6.4 | 132.625 | 25.167 | 6.9 | 164.692 |
| SHORTHORNS | | | | | | |
| Shorthorn Cow, 48 mos. and over. | | | | | | |
| 1st prize—Lady M. Girty, A. H. Foster, Twin Elm | 124.8 | 3.8 | 118.55 | 36.690 | — | 155.240 |
| Shorthorn Cow, 36 mos. and under 48. | | | | | | |
| 1st prize—Maid of Braeside, S. Bray, Enfield | 118.7 | 3.6 | 106.825 | 33.507 | — | 143.3320 |
| GRADES | | | | | | |
| Grade Cow, 48 mos. and over. | | | | | | |
| 1st prize—Magie, T. A. Spratt | 209.5 | 3.6 | 183.550 | 55.683 | — | 244.233 |
| 2nd prize—Dora, N. Sangster | 222.5 | 3.2 | 172.300 | 56.397 | 6.4 | 241.337 |
| 3rd prize—Nancy, R. A. Heron | 181.8 | 3.7 | 168.150 | 49.794 | 1.9 | 219.844 |
| 4th prize—Brownie, R. A. Heron | 173.2 | 3.5 | 153.300 | 48.405 | — | 201.705 |
| 5th prize—Rowella, R. A. Heron | 180.7 | 3.4 | 153.595 | 47.811 | — | 201.406 |
| Grade Cow, 36 mos. and under 48. | | | | | | |
| 1st prize—Peg, R. A. Heron | 140.3 | 3.3 | 115.747 | 39.246 | 2.5 | 157.493 |
| 2nd prize—Tiny, R. A. Heron | 139.2 | 3.3 | 114.825 | 37.569 | — | 152.094 |
| 3rd prize—Dinah, A. H. Foster | 95.7 | 3.9 | 93.300 | 27.042 | — | 120.342 |
| Grade Heifer, under 36 mos. | | | | | | |
| 1st prize—Laura, T. A. Spratt | 119.3 | 4.6 | 107.350 | 31.707 | — | 139.057 |
| 2nd prize—Flo, R. A. Heron | 87.7 | 4.0 | 87.700 | 26.808 | — | 114.508 |
| 3rd prize—Baby, Alex. Dymne | 89.1 | 3.5 | 77.950 | 25.284 | 10. | 113.233 |

Our Veterinary Adviser

SCOUR TO INFLUENZA.—Hart had influenza last October. In a few weeks a swelling appeared over the right nostril. This was blistered, and nearly all disappeared. In a few weeks longer the other nostril became swollen. For some time she had difficulty in breathing through her nostrils, making a moaning sound. Now she breathes easier but is not right yet. Two veterinarians who have treated her say the trouble is in the nostrils, and one says he can cure her easily, but he has been treating her for a month, and

Well DRILLING MACHINES

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WILLIAMS BROS., Htwaoca, N. Y.

she is not yet right.—C. F. H., Victoria, Co., Ont.

Your veterinarians, having seen the patient are in a much better position to diagnose and prognose than any person who has not seen her. If the trouble is due to a growth in the nostril and this cannot be removed by an operation all that can be done is to blister the skin in the region of the enlargement and give her iodide of potassium in one dram three times daily. If the trouble is in the throat practically nothing can be done. My advice is to allow your veterinarian to continue treatment. He evidently knows what the trouble is and thinks he can effect a cure. Do not be discouraged because he has not done so in a month. If he effects a cure from six to 12 months you should be satisfied.

LUMP JAW.—Give symptoms and treatment for lump jaw, and state whether the

milk of a diseased cow is fit for use.—S. G. B., Eggleston, Ont.

A tumor forms, usually in the region of the head or throat, but may be in other places. In some cases the bone becomes involved, in others not. In some cases the tumor breaks and discharges pus, while in other cases it does not. In advanced stages where the jaw bone is involved, the teeth become loose and the patient cannot eat well. Treatment:—When the bone is not involved, dissect tumor out. Where it is give iodide of potassium three times daily. Commence with one dram doses and increase the dose by half dram daily until she refuses food and water, fluid runs from eyes and mouth and the skin becomes scurfy. When any of these symptoms become well marked cease giving the drug. Repeat treatment if necessary in two months. Some cases do not yield to treatment. The milk of a diseased cow is not considered healthful.

Our Legal Adviser

RIGHT OF TENANT FARMER.—A rented a farm from B with horses and implements furnished, for the sum of \$300 a year for four years. The agreement calls for wintered cows at the time cows and kept them till June. One was farrow. B sold her to the butcher, consequently knocking A out of \$25, as B did not buy another cow at all. Is A entitled to this amount? 2. A agrees to pay taxes for farm, but B occupies the biggest and best part of house, and also some stable room, and barn and drive house; should B pay taxes for that which he occupies? The agreement does not mention this.

3. B has ceased to furnish the horses, and A has to furnish them; has not B broken his contract? B claims he charged A five per cent. for his horses; should not this amount be knocked off the rent for another year? 4. B wanted to raise the rent to \$325 for another year after A had furnished the horses simply because A has the farm in better shape by having a large portion of it under hoe crop.

5. What is a tenant farmer allowed to take in the stable when he leaves a farm? Can he take corn stalks from which corn has been taken, and also ensilage corn? Do corn stalks come under the heading of straw in the farm agreement?—C. S., Prince Edward Co., Ont.

It is impossible to answer the questions satisfactorily without an opportunity of perusing the agreement in question, for it may be the contents as stated in the questions may not correspond with the language of the agreement.

1. If the agreement requires "B" to supply nine cows for the full period of four years, then "A" would be entitled to damages for breach of contract, but possibly the agreement does not go so far.

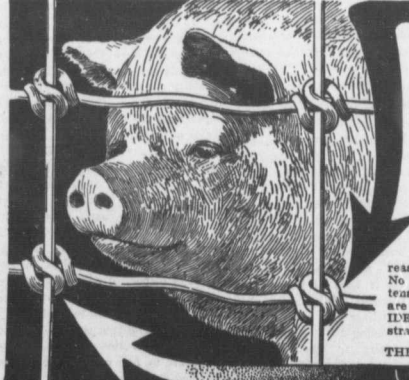
2. We presume the agreement permitted "B" to retain possession of portions of the house, barn, etc., and if "A" agreed to pay the taxes in addition, he must pay them, and will not be entitled to recover any part from "B".

3. The answer to this question depends on the language of the contract, and the remarks made by us in answer to question one will apply to this.

4. "B" certainly cannot raise the rent during the period of four years unless the contract expressly gives him that power.

5. The tenant is entitled to take away all food stuffs unless the agreement expressly prohibits him from so doing. If the agreement merely prevents him from removing straw, we would consider that he is not prevented from removing corn stalks.

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FARM AND DAIRY

PETERBORO, ONT.

RACE-HORSES AND GAMBLING

Much of the evidence given before the special committee appointed by the House of Commons to consider the bill to suppress race-track gambling is amusing to our hard-headed farmers who are interested in the greater horse breeding interests of this country. The opponents of the Miller Bill to prohibit race course betting, judging from their testimony, are convinced that the standard of the Thoroughbred horse can only be obtained and maintained by racing and that interference with the legal right to make wagers on the course would deteriorate or destroy racing.

Several of those whose expert testimony was heard claimed that few race-horse owners in Canada make expenses meet even with the present sized purses and that all would retire if this bill was passed; that it would certainly kill racing. If the game is such a losing one to breeders under present conditions, why not let it be dropped? Why bolster it up with legalized betting, which has been the ruin of so many?

Let horse-racing die its natural death as the opponents of Mr. Miller's bill claim will surely be its fate if the bill is passed. It would be a distinct gain to the agriculture of this country, for then more attention would be devoted to raising such horses as are in demand at remunerative prices. Again we say, let racing die if it cannot live without its gambling features and let Mr. Miller's bill receive hearty support.

CANADA'S CONSERVATION COMMISSION

The Conservation Commission that convened last week at Ottawa may well be looked to for instruction and leadership on those problems concerning our natural resources. The work in which this commission is engaged is a great one and is not begun too soon. In the accomplishment of its purpose, greater things than have been will surely develop.

That we should seek to conserve the abundance of nature's resources lavished upon this fair land, not for the enrichment of a few trusts, but for the service of all the people, is most laudable. Conservation of our Canadian natural wealth of water, mine and forest, our agriculture and our citizenship, is but the taking of those steps that will the sooner place this country in the fore-front of nations. Great things are to be expected of our commission on conservation, and judging by the proceedings of its first annual session, we are not to be disappointed.

WEED LAWS ARE EFFICACIOUS

"I find men who a short time ago were prominent growers of weeds now pushing for the enforcement of the Act."—J. J. Golden, Deputy Minister of Agriculture, Winnipeg.

This is but one of the several advantages mentioned by Mr. Golden when writing to Farm and Dairy in regard to the stringent weed Act in force in Manitoba. Other benefits noted were that it educates the farmers to the danger of weeds; and it makes them more careful and brings home to them the necessity of destroying weeds, whereas before the passing of the Act there was comparative indifference upon these points.

Manitoba is not alone in having taken up this matter of weed control. The province of Alberta also has proved the efficacy of an Act respecting noxious weeds. The Seed Control Act passed by the Dominion Government and which has been in force now for some years, has been of distinct advantage, not in compelling farmers to sow clean seed unless they wanted to, but rather that it offers them the means of protection against sowing weed seeds unknowingly.

Weed laws which we know best, therefore, have proved to be real benefits. Those who know sow thistle from dire experience with it on their farms, to whence it came from a neighbor's farm and perchance a distant one at that, hold up both hands in favor of legislation seeking to control sow thistle. They anticipate that action will no further be delayed but

that the Ontario Legislature this session will seek to enact such legislation as will effectually control that pest.

THOSE WHO STOOD BY SWINE

Fortunate is he who has hogs for sale these days. Prices never were so high before. While there has been a general increase in the cost of feeds, it is quite certain that those with hogs for sale—hogs that were raised on the farm and were fed with home grown products—are making handsome profits.

The situation justifies those who, like Farm and Dairy some time ago, gave counsel to stay with the business when we all were rushing out of hogs. The wisdom of that counsel is now most evident as it has been on former occasions. May we hope that this experience in the hog business will tend to lend a greater stability to any branch of agriculture that is in the best interests of the country and which has proved to be one of profit.

A DUTY OF THE SEASON

The advantages of a supply of ice upon a dairy farm are so evident that it is a wonder that this question needs to be constantly urged upon the dairy-men of this country. Cheese-factory men, creamerymen, dairy authorities in general admit that the question of cooling milk and cream in the summer months is the great need of the business. Especially is it so in connection with the creamery business. Enormous losses which producers evidently do not fully realize, are common to this business. These losses every time, are borne by the producers, not by the creamerymen.

As producers it is up to us to store ice. We need to place ourselves beyond the reproach of the manufacturers and the dairy authorities interested in the business and make it impossible for anyone to characterize as "a monstrosity," a patron of a creamery who stored and used ice.

Only the simplest of buildings is required for an ice house. Ice in this country for the most part is as free as the air. All it costs is the labor of storing. It is our duty as milk producers to store it. Shall we be found wanting in this particular when the summer season again rolls around?

APPLY WOOD ASHES TO THE SOIL

Enormous quantities of wood ashes are exported annually from this country. The returns from the Department of Customs, Ottawa, show that recently in one year, \$43,393 worth of ashes were exported from Ontario. In all probability they were bought from the original owners for not more than five cents a bushel.

These ashes would bring much greater profits if kept at home and applied to the soil. When properly applied as a fertilizer they are of great value for increasing both the quality and the quantity of the various crops of the farm and garden. Wood ashes are rich in potash, phosphoric

acid and lime. Professor Gamble of the Ontario Agricultural College, estimates that wood ashes contain on an average seven per cent of potash, two per cent of phosphoric acid and ten per cent of lime. Were we to buy the two former elements at current market prices for artificial fertilizers, the investment would many times exceed the paltry sum received from the ash dealer. It is evident that we can ill afford to sell ashes off the farm.

But in addition to this loss through the export of ashes, tons and tons of this valuable fertilizing material are allowed to go to waste through being exposed to rains. Some means of preserving wood ashes until they can be applied to the land should be a part of every farm. We need to appreciate more fully the dollars and cents value of this product. Thousands of acres of land in Ontario are deficient in potash and many of the crops of the farm, especially vegetables and fruits, are in particular need of this constituent. Let us then discourage the ash dealer in his business and preserve this fertilizing material and apply it to our own soils that too often are in such dire need of it.

PRIVATE TESTING WITH TUBERCULIN

Each live-stock man has it in his power to hold in check bovine tuberculosis among his own stock. Were all stockmen equally active and willing to comply with the conditions necessary to eradicate this dread disease, the ultimate results would be highly satisfactory. It is now generally believed that from eight to ten per cent of the cases of human tuberculosis are caused from bovine tuberculosis. As stockman our responsibility is great.

The absolute reliability of tuberculin as a diagnostic agent is a debated question. But there are few of us that would not rather have a herd of non-reacting cattle than a herd, a number of which would react to the tuberculin test. We have not yet reached that stage where compulsory testing and the slaughter of all reacting animals is advisable, although many medical men and some veterinarians whose zeal outruns their discretion, advocate compulsory testing. In private herds, where there is even a slight suspicion of tuberculosis, it is wise to have the cattle tested and, should there prove to be reactors, to quietly dispose of them to the butcher. Animals with pronounced symptoms of the disease should be destroyed outright.

The Veterinary Director General's Department at Ottawa, of which Dr. J. G. Rutherford is at the head and which has now apparently decided that it is time to begin some action looking towards the absolute control and if possible the complete eradication of this disease, supplies on the request of owners of cattle who desire them tested, tuberculin free of charge to any reputable qualified veterinary surgeon, on condition that he send to the Department the results of the tests made by him on charts that are furnished for that purpose.

Results of Underdrainage*

Wm. H. Day, O.A.C., Guelph

In the spring of 1909 the Department of Physics, which for several years has been making drainage surveys for farmers in all parts of the Province, wrote a large number of the men for whom surveys had been made in 1906, 1907, and 1908, asking them if they had put in any of the drains surveyed by the department, and, if so, to give their experience, paying special attention to cost of drains, difference in date of seeding, difference in growing crops, and increase in yield. A few others who had done drainage in earlier years were also written to. Quotations from a few of their letters under their own names follow:

William Bell, Washago, Simcoe: "I drained eight acres you surveyed for me in 1907. It had produced nothing previously. Last year I grew a fairly good crop of oats on it, which yielded 35 bushels an acre. Following is a statement of outlay and results:
Cost of draining 8 acres, \$290.90—\$35.11 an acre, including a 6-inch main to drain entire acre, while the undrained gave us only 56 bushels. Of oats we had 67 bushels on drained and 37 on undrained. In 1908 the drained and gave us twice as much as the undrained. We have tilled 87 acres this year, and purpose tilling much more next year."

T. S. Biggar, Manager, Walker Bros., Walkerville, Essex: "On our drained land this year, 1909, we had 80 bushels of shelled corn an acre, while the undrained gave us only 56 bushels. Of oats we had 67 bushels on drained and 37 on undrained. In 1908 the drained and gave us twice as much as the undrained. We have tilled 87 acres this year, and purpose tilling much more next year."

J. H. Clare, Chapman, Hastings: "Fields that previously were unfit for crops at all can now be seeded on even date with high land; and, while before they grew nothing but coarse grass, now they yield per acre:
Hay—2 to 3 tons.
Barley—30 to 50 bushels.
Oats—40 to 100 bushels.
Corn—14 feet high.

James Clayton, Cedar Springs, Kent: "In 1901 I drained 8 acres, at a cost of \$12, or \$14 an acre; eight acres right across the fence was not drained. In 1902 both fields were sowed to beans; 8 acres drained land gave 302 bushels, which sold for \$456; 8 acres undrained land gave 24 bushels, which sold for \$37.
"Gain, \$419, nearly four times the cost of drainage."

Author's Note: This example shows the value of underdrainage in specialized agriculture.

"In 1903 both fields grew fall wheat. Eight acres drained gave 45 bushels an acre; 8 acres undrained gave 25 bushels per acre. Gain, 20 bushels of wheat an acre. 1904—There was drained land on both sides of that fence."

Nathan Day, Powel's Corners, Victoria: "I drained a 15-acre field some 15 years ago at a total cost of \$145, or \$14.50 an acre, the drains being four rods apart and 2½ feet deep. It was a muck soil from a foot to a foot and a half deep, underlaid with a heavy clay. Before draining it was the wettest field on the farm, and would grow only hay and oats, and never was more than half a crop of them, and often not that, and was never sown before June. Since draining it is the second driest field we have, and will grow a full crop of anything that can be grown on the high land of the farm. It has been sown in April every year but one since it was drained. The drains paid for themselves in two years. If I were draining the field again I would put a drain every two rods, for the crops are always better right over the drains than halfway between."

F. W. Huntley, Sutton, York: "We drained part of the land surveyed, and this year a fine crop of fall wheat is growing on land that formerly was counted too wet for anything but meadow."

William Lamb, Brantford, Brant: "I think underdraining the best investment I can make on my farm."

Joseph Lapp, Cedar Grove, York: "I drained five acres, with drains 120 feet apart (10 rods on five acres). Drained another field, with drains 30 feet apart and 3 feet deep. In each case the gain in the first crop paid the full cost of the drainage."

"My general conclusion is this: Where drainage is at all required, its entire cost

*Extract from the O. A. C. Bulletin, Farm Underdrainage.

will be repaid by the increase in the first two crops, but in most cases by the increase in the first crop alone. Our own experience is the latter.

A. Leach, Farm Manager for W. F. Maclean, M. P., Donlands, York: "The cedar swamp field south of the barn, which you surveyed, and which, as you will remember, was so wet, even in the driest part of the summer, that one could not walk on it without getting wet, was drained last fall; and this year, in spite of the heavy rains which delayed all spring farming operations, it was the driest field we had when we came to cultivate it, although much of our land is high and rolling. The crop sowed on it is coming on fine, and gives every indication of good, stiff, strong growth."

James Marshall, Hamilton, Wentworth: "In 15 years I have put in over 20 miles of drains on my farm, and my only regret is that I have not used more of my spare time and attention to complete the underdraining and bring the whole farm into a better state of cultivation. In 1897 I drained a 15-acre field, at a cost of \$460, almost \$60 an acre, drains being 20 feet apart and 3 feet deep. The next year this field yielded 80 bushels of oats per acre, while the adjacent field of similar soil, but not drained, yielded only 45 bushels an acre, thus gaining 35 bushels of oats an acre by drainage.
Author's Note: Value of 80 bushels at to-day's market price, \$30.

Check the Spread of Tuberculosis

"The dairy business is of too much importance to allow it to be conducted as it is by some people engaged in it, who would be critically derelict, knowing what I now know, if I did not send a note of warning to my fellow dairymen in reference to the spread of tuberculosis," said Mr. J. R. Dargavel, M. L. A., in addressing the recent Eastern Ontario Dairymen's Association Convention at Belleville. "This dread disease even now exists to a much greater extent than is known to the ordinary men of the province.

"For many years we have been housing our herds in warm stables, many of them, yes, most of them, poorly lighted and ill-ventilated. Tuberculosis is essentially a house disease for either man or beast, and the housing of our cattle, as a rule, is of the most unsanitary kind and especially favorable for the propagation of



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this terrible plague. Saying nothing about the great moral responsibility we are under to supply our customers with only pure and healthful food products, we shall be sadly remiss to our natural interests if we do

not, each one of us, and at once, take proper and efficient measures to prevent the propagation and spread of a disease which, if not checked, will surely lead to the ruin of our herds and our business."

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Creamery Department

Butter makers are invited to send contributions to this department on questions on matters relating to butter making and to suggest subjects for discussion. Address letters to Creamery Department.

Get Scales for Testing Cream

C. A. Davies, Victoria Co., Ont.
For some time I have been considering the advisability of using the scales for weighing my cream samples for testing and since reading an editorial in Farm and Dairy of Jan. 12, I have fully decided to use the scales. I have and I am studying the principles of the test and an article convinced that we as creamery men must do all in our power to satisfy our patrons.

In all cream gathering creameries there is such a vast difference in the richness of the cream received. With the pipette system of testing we are encouraging the sending of thin cream and that is something we should strive to keep at a minimum. We want a clean flavoring cream which is much easier kept sweet and with a rich cream the patron has more skim milk for feeding purposes.

By using the scales our over-run may be lower but we have the satisfaction of knowing that our patrons are all used fairly. I heartily endorse all that Mr. Newman has said about this matter and will do as has been requested; viz., secure the information that all creamerymen adopt this method of testing cream.

Note.—What have other creamerymen to say about this matter? A full discussion upon this question is in order.—Editor.

Brighter Men Needed*

Prof. H. H. Deans, O.A.C., Guelph
It is no reflection on the men at present engaged in creamery work to say the business would be improved if brighter men were attracted to and remained connected with the business.

*Extract from an address delivered at the recent Dairyman's convention in St. Thomas.

TOO BAD

Too bad any woman must wash a complicated cream separator. Too bad anyone is misled into thinking complicated bowls are necessary. Look at the picture.

Those 52 disks were all used in one common disk machine that was discarded for a Sharples Dairy Tubular. Look at the picture. It shows the one piece used inside the wonderfully light, dainty, sanitary, easy to clean, wear-a-little Sharples Dairy Cream Separator bowl. Any wonder Tubulars probably replace more common separators every year than any one maker of such machines. Tubulars are simpler, faster and cleaner than any other separator.

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Toronto, Ont., Winnipeg, Man.

creamery industry. Chas. Reade in one of his books says, "Better is a bright, cheerful, and weary road than a horse litter." To change this into modern dairy language we might say, "Better is a bright butternut in the creamery than an automobile or an air-ship for gathering cream."

We need men like Goldsmith speaks of in his "Deserted Village."
"He tried each art, reproved each day,
Allured to brighter worlds and led the way."

These are the men who hold the destiny of the creamery business in their hands, but we must not expect all to be clear sailing. The creamery business has its ups and downs like everything else. Carlyle expresses this idea in one of his apothegms, "The brightest triumph has a bar of black in it and night always have been brighter." Another writer says, "We hesitate to call pain and sorrow evil, when we remember what bright characters they have made." All this leads us to express the hope that our dairymen shall not get discouraged at results below expectations, for give up because of apparent failures.

ADVANTAGE OF INSTRUCTION.
A term at the Dairy School will give a man encouragement, insight into the creamery business and enable him to solve creamery problems which cannot be solved in any other way. There ought to be a double number of students at present in attendance at the two Dairy Schools of the Province. The founder of Cornell University, located at Ithaca, New York, said, "I would found an institution where any person can find instruction in any study." Our Dairy Schools ought to be institutions where any person can find instruction in any branch of dairying.

To sum up the creamery problems they may be grouped as follows:
How to get more cream per cow, per acre, per day.
How to get more butter per gallon or per 100 lbs. cream.
How to get more money per pound of butter.

How to get better cream, better butter, and better managed creameries. And finally how to secure and retain brighter men, better educated men whose hands, and minds and hearts are in the creamery work. In this latter it is to be found the main work of the revolving arm chair butternut-makers, who may not know all the details of buttermaking and creamery practice, but who are, or should be, an inspiration to the toilers on the farm and in the factory.

Instruction and Equipment of Cream Haulers

"The cream haulers for the creamery operated in connection with the Guelph Dairy School, are provided with spring balances for weighing the cream," said Mr. Stratton in discussing this matter at the recent creamery meeting held at the O.A.C. Samples are taken with the ordinary dipper and carried to the creamery in gallon test bottles which fit into a neat case provided for the purpose. The samples are taken after the cream has been poured into the creamery pail; they have always worked out all right. Some doubt was expressed as to the spring balances being lawful. Mr. Stratton replied that such a scale was lawful for dairy purposes. When they first started using scales, they had equipped the haulers with beam scales. The spring balances proved much more satisfactory. The scale used has a capacity of 60 pounds. A pot hook at the back of the cream hauler's gill suspends the scale while weighing.

Previous to its use, the creamery had used the measuring stick. All

loads are checked as soon as they come in. Since they never allowed anything less than one-half pound, the cream haulers' weight tallied well with those at the creamery. Some days the hauler was a little ahead, again he was somewhat behind. From their experience, Mr. Stratton said that he would strongly recommend the scales for cream haulers. Mr. J. W. Newman of Lorneville, while discussing this subject, said that he had spent money on spring scales and the hauler had taken them away from him. Since then, he had been suspicious of such scales. The main thing is to have the weighing properly done. "Cream drawers," he said, "could run away with one's profit one's business. They need a great deal of instruction. I always go with a new man and instruct him just how to do the work."

"There is no use of one attempting to get a good sample by simply stirring it with the dipper. It must be poured. I have our haulers pour the cream until haulers are satisfied that it is mixed thoroughly. We do not intend anyone not to change cream haulers if he has a good one for the sake of a little extra money. Not unlike butter makers, the older the cream hauler gets in the business the wiser he becomes and the more he is worth."

"The Silver Creek creamery when our company took it over," said Mr. Forester, manager of the Pure Milk Company, Hamilton, "was using jacketed cans and they measured their cream with the stick. The weights at the creamery tallied well with the measure but at the end of the month, the samples were found to be incorrect. We did not get as much butter as we paid for pounds of fat. We thought that the cream haulers had not poured the cream sufficiently before taking the sample. We put the pails in the individual cans. These have stopped the leak."

"Rather than risk the mistakes of cream haulers we installed our present system of individual cans. The maker now takes the samples and weighs the cream. In this way one man is responsible for the weighing and testing instead of six."

Thickeners used in Cream

It is pretty well known that a number of articles called cream thickeners are on the market. These are intended to be added to cream for the purpose of giving it an appearance of greater density and richness than it really possesses. Gelatine is a constituent of most of them; but calcium succrate (Succrate of lime) gum tragacanth and other substances are often present. Some of the cream samples of this collection were examined for 'this' and the content of gelatine was quite definitely found in four samples; while reactions sufficiently clear to justify a declaration of trace of gelatine were obtained with nine other samples.

Evidently cream producers of Canada are not above suspicion of employing those entirely disreputable methods of giving a fraudulent appearance of richness to the product. This mode of fraud is particularly harmful in cases where a Dairy Company counts among its patrons, a few who are guilty of the use of thickeners. It may be the aim of such a company to supply honest cream; but, by intermixing ignorantly, a few gallons of the sophisticated article, a whole day's output may be contaminated. Of course, in such case, the company must be held responsible, should adulteration be detected. It is quite true that the guilty patron of such a company could not be supposed to have any advantage to himself, provided that his cream was sold on its fat content; but agents interested in the sale of these 'cream thickeners,' have been known to propose to themselves as to lead the purchaser to believe that his cream was actually improved

by their use. The only safeguard which a Dairy Company can have, is the periodical testing of its cream for these adulterations. — McGill, chief Revenue Department.

Securing Cream of High Quality in Saskatchewan

W. A. Wilson, *Suplt. of Dairying*
Every creamery man should be legitimately enforced without injury to the work is being given to the quality of the cream delivered at the creameries in Saskatchewan. All the patrons are supplied with thermometers, which are tested and guaranteed correct before being sent out. Instructions for their use accompany them and managers are instructed to responsibly insist upon the cream arriving at the creamery at a temperature of 55 degrees or under.

Patrons are asked to skim a 35 per cent. cream. Without exception creamery managers are being held responsible for cream coming from patrons who are sending rich cream. A man who is careful enough to skim a rich cream usually takes extra precautions in carrying for it. The individual who sends a 20 per cent. cream or under is very often the reverse.

CONTRACTING INDIFFERENCE
If he can be induced to skim a 35 per cent. cream and increase his carelessness will to some extent be counteracted and the average quality of the cream improved. Our efforts were rewarded last year by the average increase in the fat content of cream by six per cent., the season's average being 28 per cent.

In all our work we endeavor to make butter with splendid keeping qualities as our best markets have to store butter for a considerable length of time. It is owing to this fact that butter made during September or the early part of October is preferred to that of any other month during the year. This is during the period that the weather is cool and before cows are put into the stable.

INDIVIDUAL CANS
The old system of gathering cream in jacketed cans is being gradually replaced by individual cans. At the present time only cream wagons are using jacketed cans. When satisfactory arrangements are made on these routes they will be replaced. The individual can is a strong feature in favor of quality. It permits the manager to criticize, reject the cream and instruct the patrons. It also induces greater care on the part of the patron from the very fact that he knows his cream is subject to the judgment of the buttermaker, which is not the case when the large gathering cans are used.

The Balcock Test is the 'bug-bear' of the creamery business to-day. The farmer is kicking and he has a right to kick. Those who are responsible for making tests of cream with the Balcock test have not made the study of the test that they should. They have tried to do their best, but that best has not been good enough. — J. W. Newman, Victoria Co., Ont.

Renew your subscription now.

Black Watch

Chewing Tobacco

A new sensation. A real pleasure. The big black plug.

Cheese Department

Makers are invited to send contributions to this department to ask questions on matters relating to cheesemaking and to suggest subjects for discussion. Address factors to The Western Salt Co., Department.

Intruction in Western Ontario, 1909*

Frank Hearn, Chief Instructor

Twenty one of the factories have cool curing rooms, eight more than last year. Some of these were not supplied with ice the past season, but the rooms have been insulated and put in shape to receive ice to control the temperature. We hear of several other cool curing rooms likely to be installed this winter ready for next year's operations. Patrons are each year beginning to realize the necessity for cool curing along with cool milk, and are in some cases willing to assist the makers in erecting modern cool rooms. They are beginning to see the folly of making fine cheese and then putting it in curing rooms the temperature of which cannot be controlled, with the result that the cheese are inferior when inspected, although they might have been the finest when made. Some would have continued so had they not been heated. It is quite evident that had the money spent in past years in many cases on substitutes for insulation, such as sub-merging in ice boxes, and so on, been spent in insulation, our curing rooms would have been in far better shape to-day. However, we are beginning to realize that nothing will take the place of insulation, if we expect to control the temperature in our curing rooms.

THE CULTURE.

There are 188 factories now using a pasteurized culture. This is a great improvement over the old ordinary milk starter or none at all. The makers are each year becoming more familiar with pasteurized cultures and are using good judgment in handling them. We wish however to mention here that it is just possible that some makers may get a little careless at times in handling this culture, allowing it to become over ripe and of poor flavor. If such culture is introduced into the milk, the result will certainly be off-flavored cheese, perhaps not showing at the time of shipment, but in the buyer's hands later on if the cheese are held.

The instructors do their best to keep these cultures in proper shape, but if they are neglected in any way by the maker and become off-flavored they will sow the seeds which may cause off-flavor in many cheese before the instructor can make his regular visit and discover the difficulty. I would urge the makers to pay particular attention to the cultures. As soon as signs of off-flavor are observed secure another. Cultures with an acidity of from .7 to .75 per cent., are in the best condition for use and are for propagation from day to day. All utensils which come in contact with the culture should be thoroughly sterilized as it is useless to pasteurize the milk for a culture and then allow it to become contaminated by coming in contact with unsterilized utensils. Dippers with holes in the handles,

*Part of Mr. Hearn's report as delivered at the Dairymen's convention at St. Thomas

**FOR SALE AND WANT ADVERTISING
TWO CENTS A WORD CASH WITH ORDER**

WANTED TO BUY.—Small cheese factory in large farming district, where factories are not close together. Western Ontario.—Box 35, Farm and Dairy.

WANT TO HEAR OF a good place to start a creamery. State extent of country to draw from and particulars. Western Ontario.—Box 44, Farm and Dairy.

wooden paddles, or anything but a wire handled solid dipper should never be used for stirring a culture. The thermometer should be sterilized by dipping in boiling water before coming in contact with the culture.

ALKALINE SOLUTIONS.

There are 180 factories using the acidimeter. The system followed the past season of having the instructors make most of the solution as they pass from factory to factory seems to have given satisfaction, and very little complaint has been received this year regarding solution not uniform in strength. Many of the makers make their own solution after securing a supply of correct standard acid. The instructors were supplied with standard acid of proper strength by the chemical laboratory at the O. A. C., thus ensuring the standard acid would all come from the same source. I would like to express thanks to the chemical laboratory for supplying us with this standard acid. I might here mention that I think it would be a good plan for the makers, particularly



John H. Scott, Esq., Ont.

President of the Western Ontario Dairymen's Association for 1910.

the younger makers, not to entirely discard the hot iron or remnet test but use them occasionally along with the acidimeter, and keep perfectly familiar with these tests, as they come in very handy at times.

ADULTERATION OF MILK.

Forty five cases of adulteration of milk were reported by the instructors. These were looked after by the special officer appointed for this work, and fines ranging from \$5.00 to \$50.00 were imposed. Three cases were defounded, but conviction was secured. One case was appealed by the patron from the magistrate's decision before a county judge. The magistrate's conviction was sustained, the patron paying the cost of appeal.

A Great Danger to our Export Trade*

J. A. Buddick, Dairy Commissioner Ontario.

For some years past, especially since we began shipping out cheese so green, merchants in the Old Country have complained a great deal about the shrinkage, and the losses which they sustain in this respect. They point to the fact that there is seldom any loss on New Zealand cheese, because the practice is for the New Zealand factory to allow 1 1/2 per cent. off marked weights. I do not suggest that Canadian factories could make an allowance for shrinkage. This sort of thing will adjust itself in the price paid for the goods. The thing that I want to draw attention to is

*An extract from an address delivered before the recent Ontario Dairymen's Associations.

a discrepancy between marked and actual weights of an entirely different character from that which is due to shrinkage.

Since this matter was first brought to my notice, I have been at some pains to collect facts concerning it, but I have hesitated for certain reasons to bring it up for public discussion. It has reached a stage, however, when some effort must be made to have it remedied.

OVERMARKED WEIGHTS.

I have secured the record of the weights of 68 lots of cheese containing in all 7,313 boxes, among which there were 219 boxes wrongly marked as I have described, the errors varying from four pounds up to 42 pounds per cheese. Any difference of four pounds and over could not possibly be due wholly to shrinkage and except in one case, where all the cheese in the lot were overmarked from four to seven pounds, there is no reason to believe that the errors were due to inaccurate scales, because I find on examining the records that these errors occurred in lots of which the other cheese were either O.K. or showed only the usual loss due to shrinkage.

The plain facts are that these errors were due either to the grossest carelessness or to something worse. Of the 219 boxes wrongly marked, 193 were overmarked and only 26 were undermarked. The over-markings amounted to 1,175 pounds and the under-markings to 122 pounds. You can draw your own conclusions. The preponderance of overmarking is significant. Whether these errors were all the result of carelessness or whether some of them were deliberate attempts to defraud, makes very little difference in the effect which they have had on the minds of British dealers. The merchants believe that they are being cheated, and the loss and annoyance which result from claims for short weight are the very things to cause them to turn to other and more reliable sources of supply.

DEALINGS WITH ENGLISHMEN.

There is no man in the world who will quit trading with you quicker than an Englishman if he thinks you are not dealing fair. If you cheat him out of the value of 10 pounds of cheese under circumstances where there is a question of honor involved, he will feel more aggrieved and put more stress on it than he will for the loss of 100 times as much in a straight business deal.

A large house in Glasgow made a contract last year with a Canadian firm for a quantity of a certain product, from another branch of agriculture. The Canadian firm threw up the contract and gave reasons as to why they were unable to fulfill their undertaking. It so happened that the Glasgow firm were better pleased than they would have been if the contract had been carried out; but I happen to know that they went to a great deal of trouble to find out if the reasons given for the failure on

the part of the Canadian firm were the true ones. They wanted to know if this firm was honest and straightforward, because if not, they would deal no more with them.

HONESTY IN THE DAIRY TRADE.

I have had many letter complaints about this overmarking of cheese, and I know it is doing great harm. Canada has had a good name for honesty in the dairy trade. We have rather prided ourselves on it. Shall we allow that reputation to be tarnished either by inexcusable carelessness or deliberate dishonesty? Every dairymen in Canada is interested, because it means dollars and cents to him directly. Then let the factory management deal severely with the responsible party when cases of this kind are reported, as they will be if they occur in the future as they have in the past.

The great majority of factories mark their cheese correctly. The better managed factories are not guilty of such irregularities. From what I know of the factories in this district, I would not expect that such a charge would be laid against any of them, but these remarks are addressed to all Canadian dairymen, and I hope they may have the effect of causing those who have been responsible for these shortcomings to be more careful in the future. It is up to the dairymen to see to it that they are not classed among the dishonest ones.

A pleasant feature of the Eastern Ontario Dairymen's convention was the presence of Mr. S. D. Richardson, assistant commissioner of agriculture for the state of New York, and of Robert J. Kirkland, cheese instructor at Philadelphia, N. Y., who attended in order that they might bring greetings from the dairymen of New York State and to reciprocate the good wishes that had been expressed by Dairy Commissioner J. A. Buddick at the recent convention of the New York state dairymen's association.

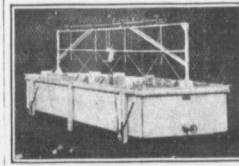
WHAT PRICE DO YOU GET FOR YOUR BUTTER?

It may not have the flavour to demand a decent price. If it hasn't, give "Purity Salt" a trial, then you will reap extra profits for your trouble. Sample and prices will be gladly furnished free.

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"DEPT. A." MOORETOWN, ONTARIO

PERFECT STEEL CHEESE VAT

Our 1910 Steel Vat is going to be just a little better than ever before. It isn't improve much over last year—it was a dandy. The tin lining in this year's vat will be 20 gauge and the best ever used. It is heavier than your local tinmish uses. The outside frame will be galvanized, no paint about it.



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Write for new catalogue with prices reduced. It will interest you.

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MANNERS are the happy ways of doing things. If they are superficial, so are the dewdrops, which give such a depth to the morning meadows.

—Emerson.

SOME NEIGHBORS

The Extravagantly Careful Martins

By Marion Hill

(Concluded from last week)

MUCH as any one would wish to doubt her word, it would be impossible, with all those bugs in evidence. The working of them is presumably beneficial, but what really happens is something like this: "Mother," says one of the boys,—they are all nice chaps, tall and winsome, as behoves the sons of a dumpy little woman who controls only by love,—"mother, this overcoat of mine needs a new lining in the sleeves. Can you do anything about it?"

"Yes, indeed, dearie. Leave it here, and the girls and I will go through the rag-bags and find a piece of silk that'll do to a T. The girls will save everything is never at a loss."

This with a proud little look around especially pregnant in the direction of the newspaper-clipper, as much as to intimate that the family would be in a bad way if both heads of it took to shears and glue. Luckily there were the samer crafts.

"Leave it with us, dearie." This "dearie" does, and goes off. It is fortunate he can go off, for when those several dozen rag-bags all get dumped at once, the house becomes pandemonium. Not that Mrs. Martin minds, neither do the girls. They make a rag-bag oray of it, and dig up things that have been missing for years.

"Mother, look!" exclaims Linda, delighted. "Here's that yellow glove of mine. Oh, I hope I haven't thrown away the mate!"

"I hope so," assents Mrs. Martin vaguely with the nearest approach to a frown that her placid face can harbor; she is untying a bundle of miscellany which promises a rich reminiscence. "I wonder what it can be," she murmurs doubtfully.

"Oh-oh-oh!" coos Mollie, suddenly coming across a scrap of blue satin. "this is the dress I wore at Sallie Mason's party. Do you remember, Linda?"

"Where's mine. I wonder!" cries Linda, clawing frantically through the heaped rubbish till she pounces on a shred of pink. "Ah, look, Mollie!"

Then the two girls live the fair night over, gabbling happily, while Mrs. Martin, just as happy, is fitting together forgotten blocks of a patch-work quilt begun in the long ago, but mercifully laid aside.

"Why, here's pa's slipper," she observes, presently, but in rather subdued tones, as one might speak of the defunct. "Isn't it queer how it could ever have got in here?"

"Don't you remember how funny

mother used to look in this spotted wrapper?" asks Mollie.

"Where in the world did you buy this skirt with the gold braid?" asks Linda.

Each is too busy clawing and guessing to listen to what the others are saying, much less to answer it. They get pretty tired, but keep right on. Just as it is impossible to burn old letters without reading every line of them, so it is impossible to cram things back into a rag-bag without honoring each piece with scrutiny and comment.

Occasionally, a lucid interval descends upon a feminine Martin and she exclaims foebly, while holding up a nondescript article,—



A neat and comfortable farm home in British Columbia

A well-kept lawn with shrubbery and flowers on its borders gives an air of comfort and homeliness to even the most unpretentious house. One illustration shows what can be done in a short time in the making of a home. It is the residence of Cooper Bros., Grand Forks, N.C. In the vicinity are many fine fruit orchards.

"Why do you suppose, are we saving this?"

After supreme mental effort, one of them explains gladly.

"It was on account of the good piece of lace on the collar; we must pick it off some day."

And is that lace picked off then and there? Certainly not. The answer to the query of why it has been kept reduces to another decade or so, and the article is thrifflily thrust back into the bag.

Whole dresses have been rag-bagged merely for the few good buttons on the waists, heavy coats for the braid, skirts for the yoke, petticoats for the embroidery, wrappers for the pattern. Two solid hours of work would reduce these bags to an orderly small basketful of buttons and other useful rubbish, then the moth-breeding mass of rubbish could go to the rag-man and be converted into cash. But the Martins would not dream of such a

course of action, because it would be so wasteful!

With a victorious sense of having done wonders, the mother and girls cram the last atom of trash back into its receptacle, and come to the sane conclusion that they'll have to go out and buy a bit of silk for Tom's coat-sleeve. It is not in the memory of man that the Martins ever did succeed in retrieving anything useful from the rag-bags, but they are a sanguine family and do not despair of better luck in the future.

The law of inheritance being inexorable along the line of misfortunes, it goes without saying that Tom Martin collects cancelled stamps, of which he has a barrelful, without knowing exactly why except that there is something legendary and remote connecting a cancelled stamp with paper mache, and a bed in a hospital; that Jimmy Martin collects bugs, but does not know how to preserve them; that Mollie, therefore, smelling most awfully and dangerously; that Linda collects posters, all glaring and some vulgar, which scarify every bit of wall space in the house; and that Mollie collects fancy dances programs and social souvenirs generally, which gather dust and flies and curl up dismally from the edge of the mirror. Mollie's dad has the one sole merit of not being expensive, which cannot be said of the others. If Linda would collect ten-cent pieces, now, instead of the posters she gets for them, she would in time be able to buy a picture or two of real worth. Tom's barrel has already cost him many a penny for cartage. Jimmy's chemicals for his bugs are all dreadfully high-priced; it is a pity he did not put half the money into a book of "bugology," as Mrs. Trent said,—then he would know a thing or two about insect life. All he knows now is insect death.

"Some fine day I'm going to give those Martins a piece of my mind," says Mrs. Trent severely. "I'm going to tell them that their saving habit is keeping them poor as church mice.

pleity of methods introduced through the Institute. Mother has a renewed interest in her regular household duties and has come to appreciate her responsibility and opportunity as mistress of the homestead. She is able through the simplifying and perfecting of her methods and by inducing greater co-operation among the various members of the household, to give greater attention to some of those things which make towards contentment and perfect happiness in the home. She shows the children how to prepare the flower-bed, the children doing most of the work; she shows them how to take care of the vegetable and flower garden; takes a keener interest in the school work of the child, and probably visits the school once or twice in the year to assure herself that the sanitary conditions are properly looked after and to encourage the teacher in her work. She sees to it that the family is provided with hereafter of an educative and elevating character. The mother, through her manifest interest in Women's Institute work, has unconsciously created a spirit of inquiry on the part of the family and the husband begins to ask whether, or not, there is something more in the work and possibilities of the Farmers' Institutes than he has yet realized. The result is that the father and mother go together to the next local Institute meeting, each attending the separate sessions for men and women in the afternoon and both being present at the joint evening meeting.

The daughter notices all this, and wonders if there are not some special advantages whereby she may get instruction and information which will be of value to her when the more serious responsibilities of life come to her. She is advised to go to Macdonald Institute and take a course in domestic science in some school or college and as this is out of the question, she is induced to join the Women's Institute and take an active interest in the work.

These are some of the results of the work as manifest in the family. What about the neighbor? He has observed the increased faith in the part of Mr. and Mrs. Sealand-Saw. They are marketing more butter and eggs of better quality and are receiving a price considerably above the average. There is a tidings about the whole farm and the homestead. The whole family are interested in this and there is co-operation in looking after things which were formerly left to one or two of the family and often went by default. The neighbor begins to inquire and finds that through the Women's Institute the wife has learned something about gardening, the growing of flowers, caring and feeding of poultry, while the farmer has been induced through the instruction given at the Farmers' Institute meeting to get his cows to find out what each cow is producing in both quality and quantity, to grow better food for his stock, to un-der-stand his land, to introduce a judicious rotation of crops. He gets a bulletin on up-to-date methods of butter making, through becoming a member of the Farmers' Institute. Greater interest in farming operations and closer attention to what may be termed "Side-lines," such as poultry, eggs, butter, small fruits, vegetables, which can be made a most profitable addition to the farm, are not only the means of an increased revenue but make life and living on the farm more attractive.

This and much more has been accomplished through the Institutes; and we see brighter days in the Institute work both for men and women. The men are showing a markedly increased interest in local organizations, Farmers' Clubs, established upon somewhat the same basis as local Women's Institutes; and the example set by the women in holding monthly meetings will, we believe, be followed very largely by the farmers.

Women's Institutes

Annual Address by Supt. G. A. Putnam, Toronto

(Concluded from last week)

The daughter notices that the mother has a greater interest in the everyday routine which has lost some of its monotony in the variety and sim-

A Good Old Farm Home

One of the pleasantest farm homes entered in the recent Dairy Farms competition was that of Anson Groh of Waterloo Co. Mr. Groh has described his home and the accompanying illustration of a family group in a pleasant manner, which we know will be of interest to our readers. Mr. Groh's farm home is situated in District 3 in the competition. Mr. Groh's letter to Farm and Dairy reads:

"The building is not so very large, only 28x32 ft., with kitchen wing. It is our dwelling on the farm and has a very interesting history, reaching back into the days of the first settlers. Could the original builder and constructor of this old farm house now be permitted to return and view it and its surroundings, he doubtless would consider himself a stranger in a strange land, for the whole exterior and interior are so changed that he would not recognize it.

The old walls, however, could they chronicle the history through which they have passed, would remind us of days of the tallow dips and open fireplace; of the mystic and novel match for the sudden lighting of fires; of the introduction of the wonderful yet dangerous coal oil lamp, before which the good old Bible, the church hymn book and catechism were read.

Into the venerated walls of this old home are inscribed almost a century of the history of the evolution of domestic farm life of Waterloo, Ont.

When in 1882 early in April my good wife and I moved into that old, cold, empty house, with its re-sheathing walls, we were wont to speak in voices low, lest the walls speak back and frighten us. Though young and alone, we had mutual interests and a single purpose. While there was very much to be hoped for, we would be content with such things as we had, until such times as our industry and thrift entitled us to more.

From very force of circumstances it was easy to make plans much in advance of our ability to carry them into execution. This perhaps was a blessing, at all events the aesthetic had in all cases to take second place to the economic side of our problems. In 1897 we jacked that old wreck of a house, up onto rollers, and started to move it off its old location to the edge of the bank where its walls were actually sliding away underneath it, to a location more in keeping with our plans and desires. We were only moving to the very beginning of the great end we had in view—a warm, comfortable, convenient, beautiful and attractive home.

Our home now is warm and comfortable, equipped with all the devices the housewife can bring to her aid in her daily work. Hard water or soft water, hot or cold on tap. There is no pump on the farm, for women to wear over. Bath tub and all its indoor accompaniments is here. Cess pool attached to all waste water, sinks, and so forth. The clothes reel, wood house and so forth all are reachable without stepping from the veranda into mud or snow.

We have a reading room provided with two church papers, four agricultural, local and general newspapers, a good general library and constant additions.

OUTDOOR ADVANTAGES.

The additions to the fruit garden this season consist of some 20 apple trees from two to four each of such fruits as cherries, plums, peaches and nine grapevines. A new plantation of 500 strawberry plants. The garden is worked by horse labor and consists of any and everything the women take a fancy to, raspberries, currants, gooseberries, and so forth, find a place.

Some rambler roses, phlox and other perennial flowers and ornamental

plants were introduced this season with a cut leaved birch on the lawn, a few Norway spruces. Chief of the improvements that the dairy farms competition hurried us to was the final finishing touches to the dwelling house. The masons and painters transformed the whole appearance of the exterior of the house. The kitchen wing was replastered and painted inside. Those final touches to a slow, long lasting task, give us a home now of which we are not ashamed.

A few words concerning the illustration I send. Our family is not all there. The oldest, who is prof. Gussows's assistant in botany at the C. E. Farm, Ottawa, is not there. That gentleman with the white hat is Mr. Amos Rush of Preston, the

they grow up for the present at least under the guidance and care of our eldest daughter, who has charge of the domestic affairs of the "Other farm" and may be seen in the group above nearly in line with the back veranda post. The young man at the far end of the group is our third son, who was farm foreman on the "Other farm." Next in the row from the son is my farm foreman, Mr. M. Snyder.

In the rear of the picture guarding the two sides of that open door with heads very close to its side posts are the faces of the "We" who have seen many changes, shared many trials, and enjoyed many mutual blessings since 27 years ago. "We" entered there with mutual hopes and interests."



Family Group on Ontario Farm

The comfortable and roomy home of Anson Groh, Waterloo Co., Ont. Read the description of group and also of Mr. Groh's home on this page. We would be glad to publish similar photographs from any of our readers who care to send same.

inventor and manufacturer of the famous Rush U. Bar stanchion. On one side of him stands his wife and on the other is her mother. The two little girls in white at the front of the row are two "Fresh Air Mission" children from the city of Toronto. One cannot imagine how they are enjoying themselves. Among the smaller people in front are four motherless boys who hardly realize what a little boy loses when his mother is taken away. They appear to be enjoying themselves like other little boys, as

Our Heroes

"dot."

As we start on a new year let us take a lingering backward look at the one that is closing. How many brave resolutions were made and how many noble battles won and lost. Some wearied and disappointed are asking, "Does the road wind upward all the way," and hear for reply, "Yes to the very end." "Does the toilsome journey take the whole long day, from morn to night my friend." We are

used to looking for our heroes' names amongst the records of great deeds done, but who are our heroes, and where are they? For true heroism goes with me in this reinvestment journey. We will first visit the fine home of our ambitious farmer with a wife who through ill health and too much care has become a nervous wreck, who the doctor says, can never be better without complete change and rest. Her hands are tied. Her husband fails to see this need. She is not sick in bed, but with the help of a very inexperienced girl manages to feed the hungry farm help, bake the bread, do the washing and send her children to school. If any are sick or need a helping hand they come to her and she must not complain or they will think she has a fund of talking of her troubles. She is always too tired to enjoy the things she used to love and has gradually learned she has no strength to spare for both work and pleasure and sometimes she is even too tired to go to church or to school. She has become used to be Queen of her home but is often too tired to enjoy a talk with her children.

Who but a woman with the courage of a hero can face all this?

Next we find a young educated girl just ready to begin her life's work, called back to the farm because mother is sick. She has become used to conveniences and refinements but none are found here. Father grumbles when she tries to persuade him that alteration should be made. He sees no need for change, why should she? He never wastes either time or money visiting city people and wants none of their nonsense brought out to the farm. Matters do not improve in this home and a daughter with a bitter heart and whose beautiful ideals are fading away stays with her mother and must wait to be called a hero till the record is read over yonder.

In another home the wife is extravagant and thinks only of appearances. Hard as the husband may work he cannot get ahead. The boy cannot get to college as he had planned, the mortgage cannot be paid as he had hoped and though nearly driven to despair he is the kindest of husbands to the mother of his children and will not darken the peace of their home, but struggles on. It does not call for much courage to go to war or save a child from a burning building but oh the courage it takes to see "our castles" fall, our ambitions defeated, our health and happiness eaten up by circumstances we know might be improved.

New Century for Country Homes

Not Wash-Day—But Wash-Hour

The woman, who uses THE "NEW CENTURY" has the clothes on the line and is ready for her morning shopping or recreation—when other women are still toiling over the tubs in a hot kitchen.

The "NEW CENTURY" washes a tubful of clothes in five minutes—washes them cleaner than can be done by hand.

Do your washing in the "New Century" way and change wash-day to wash-hour. Our booklet tells how. Sent free.

CUMMER-DOWSWELL LIMITED, HAMILTON, Ont.

The Upward Look

Good and Bad Tempers
 "Love thinketh no evil; is not easily provoked." No form of vice, not worldliness, not love of riches, not drunkenness itself does more to undo the Christian teachings and Christ-

ian spirit in this world, than evil tempers. It envenoms our own lives, it breaks up communities, destroys the most sacred relationships, devastates homes, withers up men and women, making them old and worn before their time, and makes demons of us all who allow it to have a place in their hearts and dispositions.
 "The peculiarity of ill temper," says Dr. Drummond, "is that it is the vice of the most virtuous. It is often the one blot on an otherwise

noble character. You know men who are all but perfect, and women that would be entirely perfect as far as the world goes in general, but for an easily ruffled, quick-tempered or touchy disposition. This compatibility of ill temper with high moral character, is one of the strangest and saddest problems of ethics."
 Jealousy, anger, pride, uncharity, cruelty, self righteousness, touchiness, sullenness—these are all ingredients of bad temper, in varying proportions.

Judge if such sins of the disposition, are not worse to live in, and for others to live with, than sins of the body. Did Christ indeed not answer the question Himself, when He said, "I say unto you, that the publicans and harlots go into the Kingdom of Heaven before you." There is really no place in Heaven for a disposition like this. Except, therefore such a man be born again, he simply cannot enter the Kingdom of Heaven.

Mid-Winter Sale Catalogue (No. 118), 1910

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|--|--|---|--|--|--|
| <p>1 M660. Heavy All Linen Semi-Bleached Damask Table Linen, will bleach pure white, assorted designs, 60 inches wide, 5 yard ends, enough for two cloths, weight 4 lbs., 1 ounce. Sale Price, 5 yards for \$1.56</p> | <p>2 M661. 23 1/4-inch All Pure Linen Plain Homespun Crash Toweling, perfect absorbent, used for roller towels, tea towels, kitchen and oven towels, weight 3 lbs., 7 ounces. Sale Price, 10 yards for..... \$1.29</p> | <p>3 M662. White Indian Head Suiting, the popular goods for white summer dresses. Linen finish, yard wide, 10 yards in each length, enough for a dress, weight 2 1/4 lbs. Sale Price, 10 yards for..... \$1.09</p> | <p>4 M663. All Pure Linen Silver Bleached Dubchers' Linen, firm, strong cloth for aprons, children's dresses, etc., 36 inches wide, weight 2 lbs., 1 ounce. Sale Price, 8 yards for \$1.14</p> | <p>5 M665. Full Bleached Heavy Pillow Cotton, plain, round, strong, close thread, 44 inches wide, 6 yards in each piece, enough for 3 pairs of pillow cases, weight 2 lbs., 1 ounce. Sales Price, 6 yards for \$0.87</p> | <p>6 M668. Striped English Drill, soft, fine weave, dark colors, warranted fast, assorted neat stripes, 30 inches wide, for undershirts, 5 yards in each piece, enough for a good, full, durable undershirt, weight 1 lb., 12 ounces. Sale Price, 5 yards for \$1.18</p> |
| <p>7 M667. Heavy Unbleached Canton Flannel, soft, full, even nap, firm twilled back, 27 to 28 inches wide, weight 1 lb., 13 ounces. Sale Price, 6 yards for \$0.55</p> | <p>8 M668. A Blouse Length, 2 1/2 yards, of very fine sheer pure Irish Linen, beautiful finish, the best thing possible for cool, perfect washing, dainty summer blouses, 36 inches wide, weight 5 ounces. Sale Price, 2 1/2 yard length for..... \$1.95</p> | <p>9 M669. Very Fine Heavy White Saxony Flannellets, perfectly pure, beautifully napped, best English manufacture, 36 inches wide, suitable for infants' garments, weight 8 lbs., 15 oz. Sale Price, 10 yards for..... \$1.88</p> | <p>10 M670. English Apron Gingham, assorted checks, extra quality, pure indigo dye, 38 inches wide, weight 1 lb., 7 ounces. Sale Price, 5 yards for \$0.65</p> | <p>11 M671. 18-inch All Pure Linen Heavy Crash Roller Toweling, red border, made from long, clean, perfect drying flax, 9 yards in each piece, enough for 3 long roller towels, weight 2 lbs., 3 ounces. Sale Price, 9 yards for \$0.98</p> | <p>12 M672. Striped English Ceylon Flannela, suitable for men's shirts, morning saques, pyjamas, etc., 28 inches wide, splendid range of stripes, weight 2 lbs., 9 ounces. Sale Price, 10 yards for \$2.29</p> |
| <p>13 M673. English Galatena, neat, dark, even and broken stripes, best indigo dye, fine strong weave, 57 inches wide, for boys' blouses, men's shirts, boys' and girls' wash suits and dresses, etc., weight 3 lbs., 2 ounces. Sale Price, 10 yds. for \$1.38</p> | <p>14 M674. Irish Glass Towelling, red or blue checks, firm, close weave, perfect drying, leaves no flat, good weight, 24 inches wide, weight 1 lb., 3 ounces. Sale Price, 6 yards for \$0.69</p> | <p>32 EVERY SQUARE 32 A BARGAIN STORE customers have hitherto got the benefit of these bargain ends. We now begin to share them with Mail Order customers. We want to make it just the same for you to buy from catalogue as if you visited the store. Although these ends run a little over, we only for the le- HERE IS A PIECE OF A PAGE FROM</p> | | <p>15 M675. Super Bleached English Long Cloth, round, strong, fine thread, bright, permanent, pure finish, a beautiful long cloth for underwear or general household use, yard wide, weight 2 lbs., 12 ounces. Sale Price, 15 yards for \$1.63</p> | <p>16 M676. Bleached English Sheetings, plain or twilled, fine, closely made sheetings, pure and strong, 72 inches wide, 10 yards to each length, enough for 2 pairs</p> |
| <p>17 0800. Best Scotch Zephyr, 32 inches wide, fawn, mauve, sky or green, with five 2-inch satin stripes running lengthwise</p> | <p>18 0801. 29-inch Striped Fungus Linen Suiting, pink, brown or white</p> | <p>Our Mid-Winter SALE CATALOGUE</p> | | | |

Except for this page and one other, the catalogue is illustrated throughout. This page of bargains shows our policy of putting Mail Order customers on an equality with store customers.

If you want to reap the benefits of this policy send for a copy of this Mid-Winter Sale Catalogue to-day.

Your address on a post card will bring it by return mail.

The Robert **SIMPSON** Company Limited

TORONTO

Temper is not in what it is alone, but in what it reveals. For a want of patience, a want of generosity, a want of courtesy, a want of unselfishness, are all symbolized in one flash of temper.

To rectify and throw out this horrible demon of Bad Temper, we must get at the source of it. We must try and live each day, each half day by itself, and try and conquer the habit, each time it appears in our hearts. To do this best, we must have faith with the help of Him who conquers all, we will also be helped. Put into our lives, the new spirit of faith and love for Christ, who does all things well. The spirit of Christ purifies and transforms us all. His spirit alone can eradicate the evils we are heir to. Our own wills do not change us alone but we must be guided and helped by the all loving Father above. Therefore, "Let that mind be in you, which was also in Christ Jesus."—I.H.N.

OUR HOME CLUB

COUNTRY SIGN BOARD

Now that the municipal councils have been chosen for another year, it would be a move in the public interests if they would arrange to have sign boards placed in conspicuous places along the sides of the highways in the different municipalities. On these should be in plain letters, not only the directions to the various points of interest to the traveling public, but the distances to the same. This would add greatly to the interest of travel; it would popularize routes, and save much of the uncertainty now attaching to verbal directions obtained from residents along the way.

Such sign boards are common in the Northern and Central States, and have also made their appearance on certain roads in Western Ontario. The cost would not be large. Some times the cost is borne by automobile clubs in large cities, and the boards aforesaid are put up for the convenience of the members using the roads. But in a section where no large club of the kind exists it should be performed by councils.—The Parson.

OUR SCHOOLS AGAIN

Some time ago I spoke of education going too slow and suggested that we have at least one good High School or College in each county. This idea seems to me to be all right if these schools are kept properly cleaned and ventilated. Why is it that some of our schools are in such a deplorable condition?

I visited one last week, and it almost hurts to have to admit that it had only been cleaned once during the year 1909. Its ventilation was poor, and desks were in use that should

have been condemned long ago.

Our school laws call for the school being cleaned four times a year. But, alas! this is sadly neglected.

Another school section about four or five miles from the above, I am sure will have nervous prostration over their school. It was really cleaned twice in the last year.

There are, I think, 212 school days in the year. Are we going to continue sending our children to schools like these? What would our homes look like if they were not cleaned any oftener than the schools? Would we as parents not feel that good health was what our children should have and reasonably expected, us as their parents and guardians to provide means for them to obtain it?

Here comes a word for the Women's Institute. Of course our trustees are supposed to keep the schools well cleaned, etc. But, for my own part, I think the trustee has rather a thames to fill.

He is expected by the ratepayers to hire a teacher and keep the school so that it will not look too bad. He is to do it for the least possible money. If he thinks a more expensive teacher or might do better work for the section, he finds it very hard to get others to agree with him, and if he does succeed he is put out of office, and a new man put in his place.

Why should not the Women's Institute have an entertainment and raise funds to help the trustees out a little? Surely this is one of the most important subjects they could discuss. With a little money raised in each branch and the same used in cleaning and ventilating our rural schools, at least that one part of the object of Women's Institutes would be filled. "Raising the general standard of health," of our people.

Some may think me a crank on schools, but the work of the Women's Institute seems very dear to me. Our object is one of the very best we could have! But why could we not carry some of our home work to our schools? Let us put our shoulder to the wheel and work together in the sweet spirit of helpfulness, and surely we will be rewarded for our work.

Will some of the other members of the Home Club give us their opinions?—"The Doctor's Wife."

A MAN'S OPINION

In the article, "The Tragedy of the Farmer's Wife," in December 9th issue, I was glad to note that U. S. conditions were spoken of, instead of Canadian. Though not familiar with American ways, I have been able to study a little of country life in several of our provinces, and though there are unappreciated some cases even worse than the average spoken of, I am sure we could not recognize an average farmer's wife in Canada from the description of the one in the "Tragedy."

True, she works hard, much harder than her city sisters, but every day is not wash and scrub day, neither is she compelled to put in quite such long hours as the article portrays.

On dairy farms the work in connection with the day's work of the man, and in localities where a number of men are employed it is no unusual thing to see the husband or son turn to, and help through the busy meal time, and clearing up.

The article states that the store clerks and professional men are more considerate of their wives than are farmers, even though the latter are credited with more virtues. A glimpse of an evening into a bowling alley, pool room or a golf link, might cause doubts about this to arise in the observer's mind, especially if he happen to drop into the country and see a few men picking beans or shelling peas for to-morrow's dinner.

While we may have instances such as the article referred to, it is not so much because the wife happens to be a "farmer's wife" as because she is the wife of a certain individual who is an exception to the human race in general, and is either troubled with chronic laziness, or is a victim of intemperance.

Nevertheless the lot of the farmer's wife can be made much more pleasant in any circumstance by the installing of a few modern appliances, both for convenience and for sanitation.—"Uncle Dick."

DOTS OPINION

Reading "The Tragedy of a Farmer's Wife" has suggested many things to me. There is a great deal of truth in the story, but there are many farmer's homes as much the reverse as possible.—"Dot."

A good way to mend torn lace curtains is to dampen them and fold them smoothly into a convenient size for washing. Keep in the same folds

until they are ready for the stretcher. After the curtains are washed and starched put stretcher out in the sunshine, placing first sheet in same, as fragile curtains often tear from their own weight. A curtain never should go in wrong side up. If there are any rents in them, cut from net similar to curtains pieces of the firm part, mending after laundering them, if necessary.

Have you forgotten to renew your subscription to Farm and Dairy?



Momentum Balance, Wheel working on ball bearing, keeps the "Champion" Washing going with very little effort. A new idea in washing Machines. "Favorite" Churn means easy churning, 5 sizes. If your dealer does not handle them, write us for booklets and name of dealer near you who does. 77 DAVID MAXWELL & SONS, - ST. MARY'S, ONT.

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- FREE -



Full details of our word costest \$200. in cash prizes Three pages of sprays for fruits and vegetables Tables of Measures How to preserve eggs A mine of information

"Na-Dru-Co" Almanac for 1910 is the handsomest and most useful book of its kind ever distributed to the Canadian farmer and his wife.

It is a miniature encyclopedia, containing useful hints for every member of the family.

Calculations are made for your district. In order to familiarize everyone with the name "Na-Dru-Co", we have inaugurated a novel word contest in which we will present cash prizes amounting to \$200, to the winners. Full particulars in the Almanac.

Na-Dru-Co Almanacs for 1910 are now being distributed by Druggists throughout the country. If your druggist should not have a supply, write direct to the National Drug & Chemical Co., on the coupon attached and a free copy will be sent you by return mail.

THIS AD WILL NOT APPEAR AGAIN. SEND COUPON TODAY.

Name _____ Address _____
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 NATIONAL DRUG & CHEMICAL CO., LTD., CANADA
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A USEFUL PREMIUM SURE TO PLEASE ANY WOMAN



Our 15-piece Toilet Set is made of absolutely the best grade English semi-porcelain ware. All pieces are large, full size. The decoration consists of wild flowers prettily entwined with foliage. We can furnish it in dark blue, pink or peacock blue. Given for 5 new yearly subscriptions to Farm and Dairy, Slip Jars, with cane handle, to match above set for 5 additional subscriptions. Address:

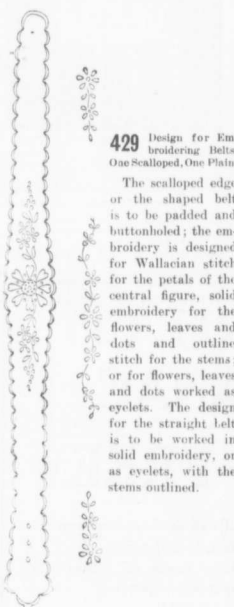
CIRCULATION DEPT. FARM AND DAIRY PETERBORO, ONT.

Embroidery Designs

Designs illustrated in this column will be furnished for 10 cents each. Readers desiring any special patterns will confer a favor by writing Household Editor, asking for same. They will be published as soon as possible after request is received.



456 Design for Embroidering a Handkerchief 10 inches square.



429 Design for Embroidering Belts, One Scalloped, One Plain.

The scalloped edge or the shaped belt is to be padded and buttonholed; the embroidery is designed for Wallacian stitch for the petals of the central figure, solid embroidery for the flowers, leaves and dots and outline stitch for the stems; or for flowers, leaves and dots worked as eyelets. The design for the straight belt is to be worked in solid embroidery, or as eyelets, with the stems outlined.



468 Design for embroidering a case for Shaving Paper.

Have you won any of our new premiums? If not, better send for Premium List at once.

THE COOK'S CORNER

Recipes for publication are requested. Inquiries regarding cooking, recipes, etc., gladly answered upon request to the Household Editor, Farm and Dairy, Peterboro, Ont.

Our New Cook Book free for only two new subscribers.

SAP VINEGAR.

When making maple sugar or molasses save all the skimmings, washing of utensils, strainers, etc., using very little water. Pour it all into a vinegar barrel. When the buds have started and the sap does not make a good product, boil it down one-half. Fill the jugs, set in a warm place and let stand 3 or 4 weeks, when the sap will have become thick andropy. Add this to the contents of the vinegar barrel, but not more than 2 or 3 quarts at a time, with 2 or 3 weeks intervening. We made a quantity of vinegar after this formula. It was rather dark, but had a very pleasant flavor.

BRAISED MUTTON

Select 2½ lbs. of lean cuts from the forepart of the mutton, and remove all fat. Lay the meat in a hot iron pan over a quick fire, and turn quickly until each piece is nicely browned on both sides, or the meat may be slightly broiled, if preferred. Put a tablespoonful of crumbled marrow in a frying pan and cook until a light brown; add ½ of an onion chopped fine; and fry this until nicely browned. If you haven't the marrow, use salt pork. Season with salt, pepper and ½ teaspoonful of summer savory or capers. Place the mutton in the pan with a cupful of water, cover closely and let simmer 2 hours, being careful not to let the water boil entirely away. Remove the meat, thicken and season the gravy, serving at once.

HAM WITH MACARONI

furnishes an acceptable dish for luncheon or supper with great nutritive value. Break macaroni in one inch pieces; there should be one cupful. Put in a sauce pan and cover with boiling water to which one half teaspoonful of salt has been added, and let cook until soft, the time required being about thirty minutes. Drain in a strainer, and pour over one quart of cold water to prevent the

pieces adhering. Melt two tablespoonfuls of butter, add two tablespoonfuls of flour, and when well blended pour on gradually, while stirring constantly, one and one half cupfuls of scalded milk. As soon as the boiling point is reached add two thirds of a cupful of grated mild cheese, and season with salt and paprika if it be at hand. Add macaroni and when thoroughly heated turn on a hot platter. Sprinkle with one fourth of a cupful of finely chopped cold boiled ham, and garnish with sprigs of parsley.

SPICE MIXTURE

Mix together 4 beaten eggs with 1 lb sugar. Sift together 1 lb flour, 1 tablesp cinnamon, 1 small teasp cloves 1 small nutmeg, grated, and 1 teasp baking powder. Mix this well with the sugar and eggs and flavor with the grated rind of a lemon. About 2 or 3 oz of citron, cut fine, may be added to this, if liked. Roll out about ¼ in thick cut with a very small cutter about 1 or 1½ inches in diameter, put on buttered tins, and bake in a moderate oven.

NO-EGG SQUASH PIE

Cut 2 lbs. ripe, yellow, peeled squash in little pieces, wash and boil. Keep tightly covered and remove as soon as done. Do not let it soak. Drain 5 minutes, then run through a sieve or colander. If wanted very fine, use sieve. Add 1 cup white sugar, 1 teasp salt and 1 teasp lemon extract. Stir well. Now roll and sift through sieve 2 small crackers. Mix all with 1 cup water in which squash was boiled, and until crackers are thoroughly swelled. It should then be stiff enough to use. Add any preferred spice. It is good without. Bake in moderately hot oven with only an under crust. It will be, correctly made, a pleasing and economical dish.

MELLOW CAKES

Cream ½ lb butter with 2 oz of sugar, then add 4 tablesp sweet cream and ½ lb flour. Roll out, cut into fancy shapes with a cutter, brush with egg white, sprinkle with sugar, place on buttered tin and bake a golden brown in a moderate oven.

SAND TARTS

Cream 1 cup butter and 1½ cups sugar, then add 3 eggs, yolks and whites beaten separately, 1 tablesp water, and flour to roll, sifted with ½ teasp baking powder. Roll very thin, cut in fancy shapes, and sprinkle with sugar and cinnamon. Bake in a moderate oven.

Learn How the Hamilton Kitchen Cabinet Saves Time, Labor, Health, and Pays for Itself

WRITE today for our free booklet. It tells how the Hamilton Kitchen Cabinet forever does away with kitchen drudgery, improves the appearance of the kitchen and saves its own cost many, many times. The Hamilton combines all the latest and most scientific Kitchen Cabinet features.

We will ship you a Hamilton Kitchen Cabinet subject to your approval. If you are not pleased with it, return it to us at our expense.



HAMILTON KITCHEN CABINET

The HAMILTON INCUBATOR CO., Ltd. HAMILTON, ONTARIO

NOTICE—WE WANT DEALERS TO HANDLE OUR GOODS IN SOME LOCALITIES

The Sewing Room

Patterns 10 each. Order by number and size. If for children, give age; for adults, give bust measure for waists, and waist measure for skirts. Address all orders to the Pattern Department.

MISSIE'S PRINCESS DRESS 6351



The dress is made with the jersey portion and skirt. The skirt is straight and laid in backward turning plats. The chemise is faced on to the dress itself, which can be cut away beneath if a transparent-silket is desired.

Material required for this size is: 27 yds 24 or 27, 6 yds 32 or 4½ yds 44 in wide with ¾ yd 18 and ¾ yds of banding for the trimming portions, and ¾ yds of ribbon 1½ wide for the sash.

The pattern is cut for girls of 14 and 16 yrs. and will be mailed on receipt of 10 cts.

SKIRT WITH POINTED TUNIC 6360



Every variation of the tunic skirt is being worn this season. The skirt is made with a foundation which is cut in five rows and the circular flounce that is attached to it. The tunic and the long box plait are joined one to the other and arranged over the foundation.

Material required for medium size is: 7½ yds 24 or 27, 7 yds 32 or 5½ yds 44 in wide, 1 yd 27 in wide for the band, width of skirt at lower edge, 3½ yds.

The pattern is cut for a 22, 24, 26, 28, 30 and 32 in waist, and will be mailed on receipt of 10 cts.

FANCY GIRLDES 6368



All sorts of fancy girdles are being worn just now. No. 1 is made with a rounded upper edge. No. 2 with the square-belt effect, No. 3 with the points that are among the newest of all things. They would be smart made from contrasting material and worn over any blouse. They are equally fashionable made from the same material as the bodice.

Material required for the medium size is for any one of the girdles, ¾ yd 21 or 27, ¾ yd 44 in wide.

The pattern is cut for a 22, 24, 26, 28 and 30 in waist and will be mailed to you on address on receipt of 10 cts.

HOUSE GOWN OR WRAPPER 6348



The simple plain house gown is always a practical one. This model is graceful and becoming yet perfectly simple. In the illustration it is made from a pretty dotted challis held by ribbon ties but it will be found in every way appropriate for washable material and also for the slightly heavier ones of wool.

Material required for medium size is: 10 yds 24, 27 or 32, or 6½ yds 44 in wide.

The pattern is cut for a 34, 36, 38, 40, 42 and 44 in bust, and will be mailed to you on any address on receipt of 10 cts.

HOLSTEINS

MAPLE LEAF STOCK FARM

GORDON H. MANHARD
Manhara, Ontario

Breeder of Choice Holstein-Friesian Cattle.

At present I will sell 20 young cows, due to freshen in the early part of the winter. Also a few young bulls. E-1-5-10

FOR SALE, HOLSTEIN BULL CALF

Born, Dec. 31, 1908. This calf was reared at three years old, 465 lbs. of milk and 21 lbs. of butter. Bull calf, born March 18th, dam Canadian Champion, her age 4, a fetal record at two years, 434 lbs. of milk and 20 lbs. of butter. E-1-5-10

DAVID GAUGHELL, Yarmouth Centre, Ont.

RIVERVIEW HERD

FOR SALE, 2 Bull Calves, sired by Sir Asgrie Heits Beils, son of King Beils, woman's greatest 5 year old sire, dam Angie Lily Pieterse Paul, champion Jr. 4 year old—29.56 lbs. butter 7 days. Dam of calves a 30 lb. 2 year old, and 23 lb. 4 year old. Price reasonable considering breeding. E-1-5-10

P. J. SALLEY
Lachine Rapids, Que.

E-10-6-10

LAKEVIEW HOLSTEINS

Herd headed by Count Hengerveld De Kol, son of Pieterse Hengerveld's Count De Kol, who has five daughters averaging over 30 lbs. butter in 7 days and whose dam (25.30 lbs in 7 days) has a daughter with a record of over 35 lbs. butter in 7 days. Five bull calves, from 0.9 to 8.0 tons, from this sire for sale. G. T. R. and Hamilton Radio close farms. Visitors met by appointment. E-T-F

E. F. OSLER, Bronto, Ont.

HOLSTEINS

SUNNYDALE OFFERS a choice lot of young cows and heifers. Lowest prices; best breeding. Can furnish car load.

A. D. FOSTER

E-5-4-10
Hallowell Sta., C.O.R.E. Bloomfield, Ont.

LYNDALE

Offers for sale young bulls sired by a son of the highest record cow ever owned in Canada.

SARA JEWEL HENGERVED SRD.

A. H. O. 30.29 lbs. butter in 7 days, 13.37 lbs. in 30 days. These bulls are all from official record dams, some of them from daughters of "Count De Kol Pieterse Paul," one out of a daughter of "Brightest Canary." E-1-2-10

BROWN BROS., LYN, ONT.

HOME-BRED AND IMPORTED HOLSTEINS

We must sell at least as cows and heifers at once, to make room for the natural increase of our herd. This is a chance of a lifetime to get a good bargain; we also have a few young bulls, Friesian, Holstein, Imp., son of Hengerveld De Kol, world's greatest sire, head of herd. Can furnish terms.

H. E. GEORGE, CRAMPTON, ONT.

Putnam Stn., 1½ miles, C.P.R.—E-4-2-10

GLENSPRINGS HOLSTEINS

Are large milchers. Herd averaged for past year 9.776 tons. Out of herd of 15, nine made official records, six in Records of Performance and three in Records of Merit. At present am offering five young bulls fit for service and one young cow.

Also am offering some fine yearling heifers and one yearling bull.

E. B. MALLORY, Frankford, Ont.

HOLSTEINS

WINNERS IN THE RING

Gold Medal Herd at Ottawa Fair

and at

WINNERS AT THE PAIR

See Our A.R.O. Records

Just thinkin' we'll want. They combine

CONFORMATION

PRODUCTION

Bull and Heifer Calves for Sale from Our Winners

"LES CHENAUX FARMS"

Vaudreuil, Que.

Dr. Harwood, Prop. D. Ferri, Me

AVONDALE HOLSTEINS

Offers for sale high class Holsteins, all ages. Here headed by Prince Hengerveld Pieter, a son of Pieter 22nd's Woodrest Lad—out of Princess Hengerveld, a daughter of Hengerveld De Kol with record of 20.34 lbs. butter at 23 months. We also offer some fine young Yorkshire pigs of choice. E-T-F

ARTHUR C. HARDY, Brockville, Ont.

THE SUMMER HILL HEAD OF HOLSTEINS

In making some wonderful records, this year's 1st has produced the champion Canadian herd butter cow for 7 years record, in fact, in the entire Dominion of Canada, for yearly production. We have some younger ones that promise to be just as good. We offer for quick sale ten fine heifers, all in calf to an imported bull.

Come and make your selections AT ONCE. Prices are right and everything guaranteed just as represented.

Trains met at Hamilton if advised.

D. C. FLATT & SON, Millgrove, Ont.

Farm Phone, No. 2471 Hamilton.

MILL CREST HOLSTEINS

Read your herd with a son of "Butter Boy Calamity." His sire, "De Kol 2nd, Butter Boy 1st," surpasses all Holstein sires of his generation in number of A. I. O. daughters and grand daughters through all his calves. He can show a calf for themselves. Two choice cows (just freshened) for sale. Write, or better come and look them over.

G. A. BRETHER, Norwood, Ont.

NORTH STAR HOLSTEINS FOR SALE

Bulls ready for service, out of high testing A.R.O. dams, sired by Count Hengerveld De Kol, a son of Sara Jewel Hengerveld, the highest cow in the Dominion, highest priced cow ever in Canada. Also a few females in calf to same bull. E-T-F

J. W. STEWART, Lyn, Ont.

AYRSHIRES

Are large producers of milk, testing high in butter fat. Young stock for sale. Order books for calves of 1909, male and female. Prices right. Write or call on

W. F. STEPHEN, Huntingdon, Que.

AYRSHIRE.—Record of Performance work a specialty, young bulls from R. of P. cows, and cows that will go on at next freshening. Milk reports of dams, for everything.

JAMES BEGG, Box 88, St. Thomas

"La Bois de la Roche's" Stock Farm

Here are kept the choicest strains of AYRSHIRES, imported and home bred. YORKSHIRES of the best season type. WHITE ORPINGTON, WHITE WYANDOTTES and RARE BREED FOWLS. HON. L. F. FORGET, J. A. BIBEAU, Proprietor, Manager E-5-26-10

SPRINGHILL AYRSHIRES

Imported and some bred stock of all ages for sale. See our stock at the leasing shows this fall. Write for prices.

ROBT. HUNTER & SONS

Long Distance Phone, Nashville, Ont. E-1-3-10

SUNNYSIDE AYRSHIRES

Imported and home bred, are of the choicest breeding of the best season type. WHITE ORPINGTON, WHITE WYANDOTTES and RARE BREED FOWLS. HON. L. F. FORGET, J. A. BIBEAU, Proprietor, Manager E-5-26-10

STONEHOUSE STOCK FARM

Is the home of most of the coveted honors at the leading eastern Exhibitions, including first prize bull and young herd. FOR SALE a few Choice Young Cows, also Bull Calves.

HECTOR GORDON, QUE.

IMPORTED AYRSHIRES

Having just landed with 50 head of choice 2½ year old and 10 head of great Barthesian sals, I am prepared to fill orders for herd heading bulls, selected from the best prime old and young herd. For sale a few Choice Young Cows, also Bull Calves. Write and we will know your wants. Long distance phone. E-5-10

R. NEBS, Howick, Que.

HOLSTEIN-FRIESIAN NEWS

Farm and Dairy is the official organ of The Canadian Holstein-Friesian Association, all of whose members are readers of this paper. Members of the Association are invited to send items of interest to Holstein breeders for publication in this column.

ANNUAL BANQUET OF HOLSTEIN BREEDERS

The second annual banquet of the members of the Holstein-Friesian Association of Canada will be held on Wednesday, Feb. 9th, at 7.30 p.m., at Nasmith's, 150 Bay St., Toronto. Mr. C. C. James, Deputy Minister of Agriculture for Ontario; Prof. G. E. Day of the O. A. C.; J. A. Baidick, Dominion Dairy Commissioner; G. A. Putnam, Director of Dairy Instruction for Ontario, and others, have been invited to deliver addresses. All members and others interested in Holsteins, are invited to be present.

It will be noted that the banquet takes place the evening prior to the annual meeting.

THE POOR MAN'S COW.

The Holstein-Friesian cow is often spoken of as "the poor man's cow," as "the mortgage lifter"; and she is thus spoken of because the average cow of the breed is such that, with the usual good care given by farmer-dairymen, no one ever fails of success in dairying when using her. In fact, in my long acquaintance with the breed and its breeders, extending over a period of nearly 30 years,



ROCK SALT for Horses and cattle, in tons and carloads. Toronto Salt Works, Toronto. G. J. GUFF, Manager

AYRSHIRES

FOR SALE—AYRSHIRE BULLS

From one month to two years old; all bred from large, good-milking stock. Also Yorkshire pigs. Apply

DANIEL WATT ON to HON. W. OWENS, Manager, Proprietor, 159-161 Riverside Farm, Montebello, Que.

RAVENSDALE STOCK FARM

Ayrshire, Clydesdale and Yorkshire

If in need of good stock, write for prices which are always reasonable.

W. F. KAY, Phillipsburg, Que. 0-5-19-10

AYRSHIRE BULLS

From qualified Record of Performance Cows. One calved October 30th, 1908, whose dam has a record of 9.51 lbs. milk, averaging 16 per cent. butter fat. Also a small calf from the same dam calved Feb. 27th, 1909. Also one calved April 16, 1909, dam having a record of two years old of 27.5-42 lbs. milk, averaging 4.6 per cent. All choice individuals and by imported bull. (Phone)

W. W. BALANTYNE, Stratford, Ont.

MISCELLANEOUS

TANWORTH AND BERSHIRE SWINE—Boars and sows for sale. J. W. Todd, Corinth, Ont. Maple Leaf Stock Farm.

WILLOWDALE STOCK FARM

LENOXVILLE, QUE. Breeds Clydesdale horses, Shorthorn and Ayrshire cattle, Leicester sheep, Chester White swine, all of choice breeding. Young stock for sale. Also several of the standard breeds of American poultry and Pigeon ducks. Settings for sale. 0-4-25-10

J. H. M. PARKER

NITSHIDE FARM, Herd of Large English Berkshire, Southdown Sheep and Silvery Dorking Poultry. A number of young boars fit for service; also cows of choice of two years old of 27.5-42 lbs. of milk, averaging 4.6 per cent. None but first class registered stock sent out. Satisfaction guaranteed.

E. E. MARTIN, Canning P.O., Paris Station, Oxford Co., Ont.

I do not recall to mind any Holstein-Friesian breeder who has abandoned that breed in favor of any other.

That Holstein-Friesian milk is perfectly balanced so as to be of the highest value as a food, has been well known for many years; but the immense amount of food produced by the breed of Holstein-Friesian cows and heifers is not yet well understood. In the last issue of these reports, it was mentioned that the senior three-year-old Pieterse Lass 2nd's Johanna had produced in 366 consecutive days of lactation, a total of 12,681 lbs. of milk from 12.134 lbs. milk; while the junior two-year-old Colgate Belle Wayne has produced in the same time 156,469 lbs. of milk from 12,681 lbs. milk. The former averaged 5.98 lbs. of total solids per day, and the latter 4.33 lbs.; their average per cents of total solids being 12.04 and 12.46 per cent. The secret of the great value of Holstein-Friesian milk as a food is, in good part, because the milk contains a larger amount of nutriment in proportion to the fat than does the milk of any other breed—M. H. Gardner, Supt. of Advanced Registry, Delavan, Wis.

OFFICIAL RECORDS FOR DECEMBER, 1909.

(Concluded from last week)

Calamity Posch Wayne (717) at 3 yrs. 11 months and 19 days of age, 11.46 lbs. butter fat, equivalent to 12.28 lbs. butter; 204.04 lbs. milk. Owned by Walburn Rivers, Falden, Ont.

Pieterse Paul 2nd (7927) at 3 yrs. 2 months and 27 days of age, 10.98 lbs. butter fat, equivalent to 12.22 lbs. butter; 204.80 lbs. milk. Owned by James Bettie, Norwich, Ont.

Merceia Jewel (908) at 5 yrs. 7 months and 24 days of age, 12.23 lbs. butter fat, equivalent to 12.22 lbs. butter; 204.78 lbs. milk. Owned by James Bettie, Norwich, Ont.

Belle Dewdrop 5th (8514) at 2 yrs. 5 months and 29 days of age, 11.16 lbs. butter fat, equivalent to 13.49 lbs. butter; 249.38 lbs. milk.

Thirty day record, at 2 yrs., 5 months and 29 days of age, 47.43 lbs. butter fat, equivalent to 55.54 lbs. butter; 1425.25 lbs. milk. Owned by E. Laidlaw & Sons, Aylmer, Ont.

Joseph Pauline Posch (8513) at 2 yrs., 6 months and age, 12.52 lbs. butter fat, equivalent to 14.61 lbs. butter; 332.99 lbs. milk.

Thirty day record, at 2 yrs., 6 months and 11 days of age, 52 lbs. butter fat, equivalent to 55.59 lbs. butter; 1421.38 lbs. milk. Owned by E. Laidlaw & Sons, Aylmer, Ont.

Howtje De Kol Lady (8515) at 2 yrs., 6 months, 3 days of age, 11.09 lbs. butter fat, equivalent to 12.94 lbs. butter; 296.78 lbs. milk.

Thirty day record, at 2 yrs., 6 mos. and 5 days of age, 45.13 lbs. butter fat, equivalent to 52.68 lbs. butter; 1299.54 lbs. milk. Owned by E. Laidlaw & Sons, Aylmer, Ont.

Leidy Abhecker De Kol, (6603) at 2 yrs., 2 months, 10 days of age, 11.63 lbs. butter fat, equivalent to 12.88 lbs. butter; 204.04 lbs. milk. Owned by E. Laidlaw & Sons, Aylmer, Ont.

Thirty day record at 2 yrs., 2 months, 10 days of age, 42.15 lbs. butter fat, equivalent to 49.16 lbs. butter; 1233.83 lbs. milk. Owned by E. Laidlaw & Sons, Aylmer, Ont.

Lucy Tensen De Kol (9035) at 2 yrs., 5 months and 9 days of age, 12.52 lbs. butter fat, equivalent to 11.37 lbs. butter; 256.5 lbs. milk. Owned by Thomas Davidson, Springfield, Ont.

Netherland (9467) at 2 yrs., 2 months and 23 days of age, 9.48 lbs. butter fat, equivalent to 11.01 lbs. butter; 265.2 lbs. milk. Owned by Elizabeth Taylor, Falden, Ont.

Fairmont Wayne (10571) at 2 yrs., 7 months and 5 days of age, 8.42 lbs. butter fat, equivalent to 9.83 lbs. butter; 277.7 lbs. milk. Owned by Walburn Rivers, Falden, Ont.

Queen Abhecker Wayne 2nd (10570) at 2 yrs., 8 months and 27 days of age, 27 lbs. butter fat, equivalent to 9.65 lbs. butter; 247.4 lbs. milk. Owned by Walburn Rivers, Falden, Ont.

GOSSIP

Attention is again called to the announcement of the Dispersion sale of over 40 head of Holsteins, by the late Mr. J. H. Madoc 25th, 1910. Mr. J. A. Caskey has a very choice lot of Holsteins. Breeders and others interested in Holsteins will do well to keep this sale in mind.

OUR FARMERS' CLUB
Contributions Invited.

PRINCE EDWARD ISLAND
KING'S CO., N. S.

RICHMOND—The cold and stormy weather makes it difficult but it gives us time to look over the past year. From the farmers' standpoint it is generally considered to be the best for many years. With beautiful crops, good prices for raw and finished products, a mild fall and early winter to ship our produce, the Prince Edward Island farmer has every reason to be thankful and to begin the New Year with renewed vigor.—J. D. Mell.

NOVA SCOTIA
NOVA SCOTIA CO., N. S.

ATERVILLE—The short course at Truro Agricultural College is more popular than ever. Several young men and women from this district are enjoying the course, and one has been elected themselves have induced others to go also. In the cellars of this district a beautiful turnip crop is stored. The late rains caused an exuberant and tender growth in the fall. Some of the roots were pulled in the old way, but others had their tops slashed off, two rows a time, by the man with the hoe." A second man followed with a hack and pulled them out. In one instance a pair of horses on the potato digger raised the crop after the tops had been cut off with the hoe. It may be owing to the farm papers, and their continued hammering of farm improvements, that the spirit of progress has inspired several farmers to put in bathrooms. There seems to be a sudden epidemic of windmills, which one cannot fail to notice during a drive from township to township. The windmill is looked upon as a sort of hall-mark of prosperity. However, apple speculators are not feeling very happy just now, but most of them erect one of windmills before this. Reports say that local buyers have lost heavily. Returns from commission men in London are not encouraging. The co-operative fruit companies seem to be doing better. Moral—Co-operate.—Fannie Watts.

ANTIGNONISH CO., N. S.
ANTIGNONISH—There has scarcely been any work done in the woods yet on account of too much snow. The County Farmers' Association held its annual meeting on Jan. 2d, with a fair attendance. The books showed a balance on the right side and the Association is in a flourishing condition. It was decided to hold another seed fair in the spring, and the annual exhibition again in the fall. The Association is organizing a Mutual Fire Insurance Company for the benefit of farmers. One of our agricultural societies has organized a farmers' club, which meets once a week to discuss matters of interest pertaining to farm and social life. This is certainly a step in the right direction, and we hope other societies will follow the example. The prospects are that feed will be scarce. Hay is now \$14, beef 6 cents, pork 9½ cents.—Tom Brown.

ONTARIO
LEEDS CO., ONT.

GANANQUE—Prices for farm products are good. Hay sells at from \$12 to \$16 a ton; dressed pork, 9½¢ and 10¢; butter, 23 to 25 cents. Potatoes are abundant and cheap. Fresh eggs are very scarce. The demand for milk cows never gets better, a common grade cow often going over \$60 at auctions.—C. H. C.

HASTINGS CO., ONT.

THE RIDGE—A good many men are getting out logs and slash poles, as poles are a better price this winter than they have been for some years. There seems to be no scarcity of feed, although it keeps up to a very good price. Hay is selling at \$17 a ton delivered; straw at \$5 and \$6 a load, according to size. Oats are selling at 40 cents a bushel; best 7 cents; pork, 10 cents a pound dressed.—A. B. C.

DURHAM CO., ONT.

FLEETWOOD—Gain a number of horses are changing hands. Mr. Tishert Davidson sold a nice mare for \$210. Mr. John Crawford sold another rising three-year-old for \$185, and Mr. John Cairns sold a span for upwards of \$375. Mr. Leander Werry sold an aged span for a nice figure also.—A. G.

WATERLOO CO., ONT.

NEW HAMBURG—The high price of logs is one of the chief subjects of discussion just now. Competition amongst

buyers is very keen. Farmers are coming quite a distance to take advantage of the market. Several annual meetings of creameries and cheese factories are to be held this month. We are pleased to see that H. B. Lowe, New Dundee Creamery, won a prize at the Dairyman's convention. Local cheese factories are now returning yield to patrons. They was a great help toward low cost of production of butter. Horses are in good demand at last year high prices. Buyers are out early this season, which one would think is an indication of high prices by spring.—A. B. G. S.

WELLINGTON CO., ONT.

ELORA—The meetings of Centre Wellington Farmers' Institute held recently were of an exceptionally interesting character. The addresses of Mr. Annie Toronto, and Mrs. Watts, Clinton, were an inspiration and cannot fail to be helpful to those in attendance. Local talent also played an important part and should be employed wherever available. It takes courage the part of the local man to talk to his neighbors, but no one is better acquainted with local conditions. Farming is still in the front rank as a business. Prices are high, and prospects bright. Money is coming in, and profits are large. Cattle are keeping up well. Hogs are still on the rise and it looks as if pork would soon be out of reach of ordinary people, but the farmer is well suited.—G. W.

WENTWORTH CO., ONT.

KIRKWALL—There is very little snow on the fields in the swamps, it having nearly all blown into the fence corners. Most of the farmers are busy getting their frowed out. Hardly as many cattle are in the stables as in previous winter, as there is some scarcity of feed. Not many cattle are being fattened and the prospects are that choice well-finished cattle will be very high next spring. Stockers weighing 750 pounds to 900 pounds are scarce.—W. C.

OXFORD CO., ONT.

GOLSPIE—Many have been taking advantage of the good sleighing; several hundred cords of wood, and about 500,000 feet of lumber are to be drawn away, so that it gives work to several men and teams. The wood is taken to the lime kilns in Beachville, and the most of the good lumber is shipped at Beachville. The celled lumber goes to Ingersoll to be used for crates for shipping machinery.—A. M. H. C.

NORFOLK CO., ONT.

SOUTH WALDRINGHAM—Hogs are selling at \$8.10 a cwt. Beef cattle are scarce. Hogs are also scarce and are selling at 25 cents a dozen. Stock is looking well and water are plentiful. Business is brisk and the markets are all that could be desired by those who sell, but hard on those who are compelled to buy.—B. B.

LIVE HOGS

We are buyers each week of Live Hogs at market prices. For delivery at our Packing House in Peterborough, we will pay equal to Toronto market prices. If you cannot deliver to our Packing House, kindly write us and we will instruct our buyer at your nearest railroad station, to call on you.

THIS WEEK'S PRICES FOR HOGS DELIVERED AT FACTORY

\$8.50 a Cwt.
FOR HOGS WEIGHING 160 TO 220 LBS.

THE GEO. MATTHEWS CO., LIMITED
PETERBOROUGH, - HULL, - BRANTFORD

MIDDLESEX CO., ONT.

LITTLEWOOD—A number of farms have lately been sold. The prices received for them are from \$70 to \$100 an acre, which is about \$10 or better an acre than a year ago. A number of young men have lately thrown their old farm clothes to one side and have gone to the cities. Some are going in for an education, others to work at some job, as they think, easier than the farm. When land sells so high, a young man has not much encouragement ahead of him in his endeavors to pay for a farm, so the cities hold out the greater allurements.—J. R. O.

ELGIN CO., ONT.

SHEDDON—Twice a week hogs are shipped from here. Some of them are brought a long distance, coming all the way from Port Talbot and other places. The cash received from their sale puts a lot of money into circulation, which means good times among the farmers and others. Marketable hogs appear to be scarce, though none can complain about the price paid. The sleighing is good, as no drifts have formed.—J. E. O.

FROME—Markets are good, one hundred acre farms with good buildings are bringing from \$8,000 to \$10,000. Quite a few farms are changing hands. Wheat is worth \$1.08, butchers' cattle \$5, pork 9½¢, butter 27 to 30¢, eggs 30¢. Wheat and young clover looked fine when they went under the snow.—R. J. H.

ESSSEX CO., ONT.

ARNER—Getting up wood and doing the regular chores constitute the farming at this time of the year. A small quantity of logs are coming in at the sawmill. Those who have tobacco are busy strip-

ping it and getting it ready for shipping. Hogs are \$8.50 a cwt.—A. L. A.

LANBTON CO., ONT.

WYOMING—Farm products are selling well. Hogs, \$8.31 wheat, \$11.12, clover seed, \$8.25. Those farmers who buy and feed heavy cattle say they cannot get their supply. Everything points to a healthy condition in trade. Farmers are well pleased with the past year.—D. N. A.

BRUCE CO., ONT.

CLUNY—Hogs are very high; \$8 was paid on the 4th, live weight. Milk cows are scarce and very high in price. Fall wheat, \$1.15; peas, 85¢; oats, 85¢; barley, 50¢; potatoes, 40¢ a bag; butter, 26¢; eggs, 30¢; hay, \$9 to \$9 a ton.—J. M.

HURON CO., ONT.

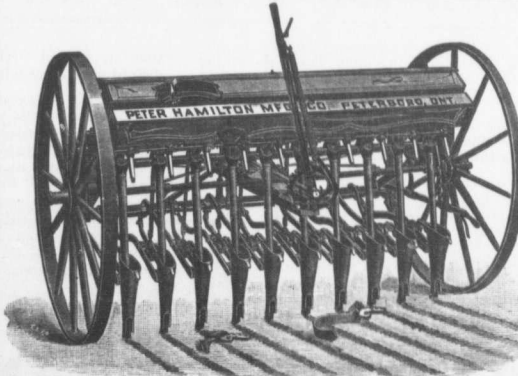
BLYTH—Farmers in general are busy looking after their stock, as there is very little bush work to be done. A few are thinking of attending some of the short courses at Guelph. It is too bad that more do not avail themselves of the opportunity of picking up a little more education along the several lines pertaining to agriculture. The markets in general are high; hogs are \$8.25 a cwt.—higher than they have ever been here before. Horse markets are beginning to liven up somewhat.—L. R. S.

BRITISH COLUMBIA
NEW WESTMINSTER CO., B.C.

MUNDO—Cattle, horses and sheep are looking fine. There are lots of roots and hay for them. Pigs are doing well. Hog feed is very expensive to buy. We have had no snow so far. The hardest frost was only 12 degrees below freezing.—C. C.

You Don't Know a Good Drill Unless You Know

Hamilton's
"Leader"
Drill



Either hoe or disc, Any size.

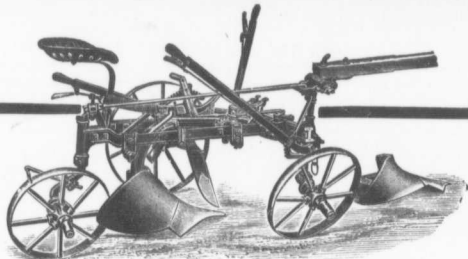
No hard work. Lift lever has power and raises or lowers feet or discs easy.

An accurate and constant sower. No skipping or bunching.

Easy on horses. Perfectly balanced and easy to draw.

Find out more about it from our nearest agent. Hundreds of other good points.

THE PETER HAMILTON CO., Limited



Cockshutt's New Footlift Sulky.

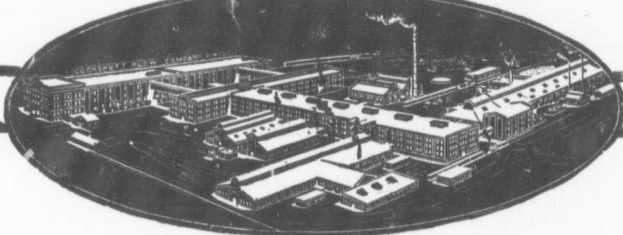
Showing Wide and Narrow Bottom

Built to stand all Conditions. A Boy can handle it

THIS Footlift Sulky is a great favourite with farmers in Ontario and the Maritime Provinces. In design, it is very much like our Jewel Sulky, which has become the standard of Sulky Plows in Western Canada. It can be fitted with bottoms suitable for any kind of soil—for clay land the Judy bottom is used, and for loamy soil the No. 2's. These bottoms have already made a great name for themselves, and farmers know of them so well, that detailed description is unnecessary. But what places this Sulky plow in a class by itself—makes it distinctive and better than any other make—is the Footlift Attachment, making it so simple to operate, that any boy who is able to drive a team of horses can handle it.

The levers are all conveniently arranged, but are only used for adjusting the plow when starting in the field, for once it is set to width and depth it is operated entirely by the footlift attachment, leaving the operator's hands free to manage the horses. A special device locks the plow when raised from the ground and locks it down when set for work. The plow can be raised by the outfit attachment when obstructions are met with, preventing breakage, which is very useful in stony land. Can be fitted with rolling colter, knife colter or jointer.

This Footlift Sulky embodies every requirement necessary for plowing any kind of soil, and the farmer who buys one will be investing his money where it will bear good interest. Another point—when the operator jumps off this plow at night, he won't feel tired out, but will be well able to do his chores.



Will You Do This Now—To-day?

YOU have probably read about the reliability, durability and efficiency of Cockshutt implements in this paper scores of times, but reading about these things is poor satisfaction, if you have never had an opportunity of testing the implements themselves.

We are constantly receiving letters from farmers along these lines—"If I had only known how good your 'so-and-so' was, I would have bought one year ago."

The farmer who buys an implement bearing the name "Cockshutt," not only realizes that he has got honest value for his money, but after putting it to every test, he feels

that he should write and tell us how delighted he is with his bargain.

And you will be no exception if you invest your money in any Cockshutt product, whether it be a Plow, a Drill, Cultivator, Harrow or any of the numerous implements which we manufacture.

There is a Cockshutt dealer in your neighbourhood, who will

gladly show you our line of goods, but the first step you should take is to get one of our new Catalogues.

Write us to-day and we will send you one by return mail.

**WRITE FOR
CATALOGUE
TO-DAY**

COCKSHUTT **FLOW COMPANY LIMITED** **BRANTFORD**