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VOL. XXVIII

NUMBER 46

# FARM AND DAIRY

## RURAL HOME

PETERBORO, ONT.

NOVEMBER 18,

1909



**UP-TO-DATE BARN** THAT ARE TYPICAL OF THE PROGRESSIVE SPIRIT OF THEIR OWNER. An English boy, twelve years of age, on coming to Canada hired on a farm, and in eleven years from that time he had saved \$1000 in cash over and above his clothes and living; he then married and rented a farm. Such was the early history of Mr. Isaac Holland of Brownsville, Ont., one of the competitors in the Prize Farms Competition, who owns the buildings illustrated. The farm consists of 200 acres of rolling, light clay loam soil. The barns and other buildings on this farm are modern, the barns being painted and having cement walls and floors and water in the stables. Farm and Dairy will have more to say about this place in some later issue.

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### A Cow's Account

Farmers do you keep records? It is doubtful if there is any one thing that will add more to the interest of farm labour, or make its usefulness more apparent in shorter time than one simple method of figuring. For instance, supposing that mixed farming is followed; an answer is desired to the query, which pays best, sheep, poultry, fruit, cows, steers or grain? It may be found after a year's record that the farm is best adapted for dairying. Then will naturally follow the investigation, which cow pays best? This phase of the question has not yet appealed to all owners of dairy herds, but is in truth at the very foundation of profitable dairying. Every farmer interested in estimating out all unprofitable features of his business, he wants to produce plenty of good milk at the least cost, and to this end dairy records are indispensable. Why? Simply because they enable the watchful owner to detect those cows that give the most milk and fat in proportion to the feed consumed. Which cows will respond to a little extra grain? Which cow can I least afford to sell? Will any in my herd not paying? Are any me to get a good pure bred sire? The dairymen needs to know such points definitely, hence he must keep records of feed and milk. Forms are supplied free on application to the Dairy Commissioner, Ottawa.—C.F.W.

### Winter Fair Lectures

A special feature this year in connection with the programme of lectures at the Winter Fair will be a discussion of the proper type to be sought for in breeding the various pure breeds of live stock. Each breed will be dealt with by a recognized authority and representative animals will be used for illustration purposes. These subjects will be taken up in such a way that they will be of interest and value to every farmer who is trying to improve the quality of his stock whether his animals be pure breeds or grades.

One of the general subjects to be taken up will be that of "Under-draughting." This will be discussed by Prof. W. H. Day of the Agricultural College who will illustrate his recommendations by charts and the appliances necessary for the proper carrying out of the work.

In view of the high prices now prevailing for the various grain feeds, it has been considered timely to have the following subjects dealt with: "Profitable Production of Poultry on the Farm," "Poultry Feeds and Feeding," "Lessening the Cost of Milk Production," "Best Types of Ensilage Corn for the Various Stock Raising Districts of Ontario."

### Seed Exhibit for the Winter Fair

One of the growing departments at the Winter Fair, Guelph, has been the seed department. While it is almost too late to call the attention of intending exhibitors to their opportunity to show grain this year at the fair, December 6th to 10th, inclusive, as the entries close on the 13th inst., yet there is one last word to say even to those whose entries are in.

In the general class a man must have 10 bushels of wheat, oats, barley, or peas, five bushels of small seeds, and 10 bushels of potatoes and 30 bushels of corn for seeding before he is eligible to show.

The prize list for the members of the C.S.G.A. is very attractive. The Ontario members should be out in force. Mr. L. H. Newman has provided a splendid prize list and special trophies.

In the competition of grain from the prize-winning fields in the fields crop competition of 1909, the exhibit should be very attractive for the members of societies west of Toronto. This year, besides oats, the prize list offers three prizes at least for goose wheat, winter wheat, barley, peas, beans, corn and potatoes. The bringing of all this grain from different parts of Ontario shows what the Old Province can do in the production of standard seed grain, and at the same time gives an opportunity for buyer and seller to meet and make bargains. For instance, the winter fair has become quite an exchange for corn in winter wheat. This is the way for the farmer to buy his seed corn, as he can judge of the nature of the plant from which his seed is produced.

The professional exhibitor who buys first-class exhibits and shows them from year to year is becoming hard pressed and falls down when he is unable to deliver the quantity of seed his sample calls for. In this way a thing too common in the past is being carried out. The practice can not go too quickly. It seems harder to deal with at the fall exhibitions.

Visitors at the Winter Fair, Guelph, this year should not fail to look up the seed exhibit in the New Building, as it is sure to prove more attractive than is ever.—T. G. Raynor.

### Ontario Horticultural Exhibition

Extensive displays of fruits, flowers, vegetables and honey of superior quality combined to make the Ontario Horticultural Exhibition last week in Toronto the greatest show of its kind ever held in Canada. A great increase in number of entries and many additional features of interest and of educational value were noticeable. In the packing of fruits there was a marked advancement shown over last year and all previous years. The character and finish of the boxes indicated that this factor is rapidly nearing perfection in this province. Faulty exhibits were in the minority. A few boxes were slack, some contained fruit not properly graded, a few contained too much tissue paper, but on the whole they showed the greatest advancement in packing methods that has yet been seen at an exhibition in Ontario. The barrel exhibits were fine. As this is an older package than the box and as barrel packing has been nearly perfect for some time, there was no striking progress noticed here. Prominent among the winners in boxes and barrels were the Norfolk, Chatham, Oshawa, Newcastle and St. Catharines fruit growers associations and a number of individual growers, the names of whom cannot be published for lack of space.

The first prize for best display of fruits in commercial packages was won by the St. Catharines Cold Storage & Forwarding Company for a well packed lot of well grown apples, pears, peaches and grapes. Second prize in this section went to the Grantham Fruit Growers' Association and third to the Norfolk Fruit Growers' Association. The St. Catharines Cold Storage Company also won first for best display of fruits not in commercial packages; 2nd, Norfolk; 3rd, Grantham. The first award for the display of apples, not in commercial packages and exhibited by a society or an association in semi-northern counties went to the East Simcoe Agricultural Society.

Among vegetable exhibits, Leach and Greville had an exceptional fine display of large, clear, highly-colored fruit. This exhibit attracted much attention. Huron and Halton Counties also had a fine display. Some 1000

(Continued on page 9)

# FARM AND DAIRY & RURAL HOME

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Vol. XXVIII.

FOR WEEK ENDING NOVEMBER 18, 1909.

No. 46.

## EXPERIMENTAL WORK ON POTATO CULTURE\*

W. T. Macoun, Horticulturist, Central Experimental Farm, Ottawa.

### The Results Point to the Importance of Using Seed of Strong Vitality—Larger Yields from Imported Potatoes The Advisability of Changing Seed.

It is not necessary to give statistics to convince you of the great importance of the potato crop in Canada. When we consider that most of our people eat potatoes at least once a day nearly every day of the year we have some idea of the enormous quantity required for home consumption. It will readily be seen that if by any experiments which may be conducted, or any information which can be given, we are able to cause a general improvement in the culture of this important food product, the total increase in production would be very large, even though but slight improvement were made in each individual case.

During the 20 years in which I have had charge of the experiments with potatoes at the Central Experimental Farm, Ottawa, I have been many times convinced that there are few, if any, crops which can be improved so much by better methods of cultivation as the potato. There is no field crop that I know of where such a range in yield between different varieties and different strains of seed is found. In 1904 in a test of 75 varieties of potatoes at Ottawa under fairly uniform conditions the most productive variety yielded at the rate of 554 bushels an acre, while the least productive yielded only 123 bushels an acre, a difference of 431 bushels an acre. In 1905 in a test of 78 varieties the highest yield was at the rate of 475 bushels an acre, and the lowest 114 bushels an acre, a difference of 361 bushels an acre. During the years 1906, 1907, 1908, and 1909 the yields in the experimental plots have been much reduced owing to drought, and other causes which will be discussed later, yet the difference between varieties is still marked, the most productive yielding at the rate of 321 bushels an acre in 1909, while the least productive yielded only 17 bushels an acre.

Although this difference in productiveness is, under some circumstances, largely due to variety, much depends on the kind of seed used. One might continue to show how the potato crop could be improved, by thorough preparation of the soil, by using seed of the proper size, by cultivating frequently to conserve moisture, by spraying in good time to kill the Colorado potato beetle, and to keep the potato blights under control, and many other operations which if well done mean an increase in the crop. All this, however, has been discussed so frequently that at this time I shall confine myself to a discussion of the "seed."

Up to the year 1906 the importance of the source of seed supply in Canada had not been strongly impressed upon me, although in the previous year while on a visit to England I was struck by the importance of it there. At the Experimental Farm we had been growing some varieties year after year from the same stock, grown on very similar sandy loam soil each year. Each

year the best potatoes were selected for planting in the experimental plots, and the results obtained seemed to justify the continuance of our own stock from year to year. Taking the results from four well known varieties, for instance, the average yields were the following for the first four and the last four years in the 16 years, 1890-1905, during which time there was no change of seed:

	1890-1893	1902-1905	Increase Bus. per Acre
Early Rose, 257 bus. an acre . . . . .	317	60	
State of Maine, 325 bus. an acre . . . . .	361	37	
Empire State, 301 bus. an acre . . . . .	338	37	
Delaware, 296 bushels an acre . . . . .	352	56	

There was thus no indication of deterioration in the variety after 16 years without a change of seed, but a fair increase due, no doubt, to careful selection and good cultivation each year. But in the year 1906 there was a sudden change. That year was one of the most unfavorable seasons for potatoes that has ever been experienced at the Experimental Farm. During the early part of summer there was sufficient rain to keep the plants growing nicely, but just after the last cultivation, dry, hot weather set in and continued all summer, with the result that the plants were stunted, the foliage dried up prematurely and there was a poor crop of tubers. Moreover, during the month of July there was a veritable plague of aphid which attacked the foliage and doubtless did their share in lessening the crop. The best tubers were used for seed in 1907, but the best were small and had been prematurely ripened in 1906. The early part of the summer of 1907 was dry and the tubers did not form well. The crop was again small, although most of the tubers which formed became of marketable size and were clean and well formed. The best of these tubers were used for seed in 1908, but during that year there was never enough moisture from the middle of June until the vines died, notwithstanding thorough cultivation. A severe attack of thrips also checked the growth of the vines. Again the best tubers were planted in 1909, and the seed used would have been considered by its appearance to be first class seed, as it had been kept in a cool cellar and the tubers were firm and showed little sprouting when the potatoes were planted, yet the results were very poor.

A table of yields of the four varieties already referred to for the years 1906-09 is interesting.

	Early Rose	State of Maine	Empire State	Delaware
	Yield per acre Bush.	Yield per acre Bush.	Yield per acre Bush.	Yield per acre Bush.
1906 . . . . .	150	132	132	103
1907 . . . . .	128	174	117	114
1908 . . . . .	69	97	117	156
1909 . . . . .	18	62	62	53

Aver: 1906-9	91	116	132	131
Average 1902-1905, before the drought:				
	317	361	338	352

It will be seen from these figures that there has been a marked falling off in yield during the past four years, part of which in the years 1907 and 1908 was doubtless due to the weakened vitality of the seed, and part to the very unfavorable seasons. In 1909 with a more favorable season and good cultivation the small yield is evidently owing largely to seed low in vitality, although in 1909 there was considerable injury from disease which caused the rotting of the stem. Newer seed of other varieties yielded in these bad years as high as at the rate of 234 bushels an acre in 1906, 402 bushels in 1907, 325 bushels an acre in 1908, and 321 bushels an acre in 1909, showing that notwithstanding unfavorable conditions good seed gave good results.

### RESULTS FROM IMPORTED SEED

The crop of potatoes had been so poor in 1906, and the prospects for a good crop in 1907 from the tubers not being thought favorable, it was considered desirable to compare the results with imported seed. Accordingly, small quantities of tubers of six well known varieties of potatoes were procured from the Exorietal Farm, Nappan, N.S. As the best of the homegrown seed had been used in other experiments before this imported seed was planted the results obtained that year are not considered reliable, but it may be said that the average yield from the imported varieties was almost twice as great as from the home-grown seed of the same sorts. In 1908 it was possible to make a fairer comparison, and before was compared with the best seed of the home-grown stock. The results given in the following table show that the extra vigour and productiveness of the imported stock were still maintained to a marked degree.

Name of Variety	Seed from Nappan, N.S., 1907 Total Yield per Acre C.E.F., '08 Bush.	C.E.F. Seed 1907 Total Yield per Acre, C.E.F., '08 Bush.
Late Puritan . . . . .	343	118
Rochester Rose . . . . .	281	96
Early White Prize . . . . .	272	123
Vick's Extra Early . . . . .	213	156
Money Maker . . . . .	213	118
Carman No. 1 . . . . .	193	103
Average . . . . .	253	119

This test was continued in 1909, new seed of some of the same varieties being obtained from Nappan again this year and compared with the Nappan stock of 1907 grown two years at Ottawa, and with our old stock. The results are as follows:

	Rochester Rose Bush. lbs.	Carman No. 1 Bush. lbs.	Vick's Extra Early Bush. lbs.
Nappan seed 1900	215	36	198
Nappan seed, 1907	127	36	62
C.E.F. seed . . . . .	44	58	36
			74

It will be seen from this table that in every case the Nappan seed of 1909 yielded much more than the Experimental seed, nearly five times as much in one case, and more than twice as much in two cases. In two cases the Nappan seed of 1907 yielded much better than the Farm seed of the old stock, although in one case the Farm seed did a little better.

\*An address delivered at the Convention of the Ontario Vegetable Growers Association held in Toronto last week.

As showing that a change of seed does not always mean much better crops, it may be mentioned that in 1905 tubers of the American Wonder and Empire State potatoes which had proved among the most productive at the Ontario Agricultural College, Guelph, were obtained from that Institution for comparison with our own. As the quantity received was small they were planted the first year on plots one-half the size of the uniform test plots, thus giving them an advantage when the rate of yield per acre was estimated. Our own strain of American Wonder yielded at the rate of 370 bushels an acre, while that from Guelph yielded 327 bushels an acre. On the other hand, the Empire State from Guelph yielded 381 bushels an acre, while our seed yielded 370, a very slight difference. The next year, 1906, the year of the greatest drought, when they were all on plots of uniform size, the Empire State, Ottawa strain, yielded at the rate of 132 bushels an acre and the Guelph seed 101 bushels. In the case of the American Wonder, however the Guelph seed withstood the drought best and yielded at the rate of 180 bushels an acre, while the Ottawa seed yielded only 79 bushels an acre.

We have tried to show that a change of seed sometimes more than doubles the yields of potatoes. How shall we decide when it is desirable to have a change of seed, and what are the conditions which give seed strong vitality? If we know when to change our seed and where to get it from there is no doubt but that potato growing would be much more profitable.

#### BETTER ONE CHANGE SEED?

In the first place, every potato grower should be an experimenter. He should try on a small scale the varieties which other experimenters have found most productive. If he discovers a variety which is better than his own he should not only grow more of that variety, but if he is getting the seed he should, if possible, get it from the same source as he obtained his trial lot, for if he obtained it from another source it might not do as well as his own.

If a grower has been getting but fair or poor crops from the variety he is growing he should try a change of seed, getting the same variety, perhaps. Moreover, when he has found that it pays him to obtain seed of a certain variety from a certain source he should endeavour by experiment and calculation to learn whether it will pay him to change his seed every year, every two years, or every three years.

#### USE SEED OF GOOD VITALITY

It has been fairly well shown that potatoes which are prematurely ripened either by an early drying up of the tops or are poorly developed on a weak vine, are low in vitality and should not be used for best results. In Great Britain it is now well recognized from the results of careful experiments that seed potatoes from the south of England, where the climate is comparatively dry and warm, and where potatoes ripen much more rapidly than they do in Scotland and Ireland, do not give nearly as large yields as seed potatoes from Scotland and Ireland. In an experiment which I had the opportunity of seeing at Sutton & Sons, Reading, England, in 1905, where Scotch and English seed of the same varieties had been planted side by side, the English stocks were evidently three weeks nearer maturity than the Scotch stocks.

In an experiment conducted by the Department of Agriculture in Ireland to determine the relative value of Irish and Scotch seed potatoes the following results were obtained:

(Continued on page 7)

Farm and Dairy is read with a great deal of interest at Macdonald College.—G. H. Cutler, lecturer in Cereal Husbandry, Macdonald College, Que.

### A Poor Farm Made Productive

About one and a half miles from the town of Preston is situated the home of Anson Groh, whose farm is competing in Farm and Dairy's Prize Farms Competition. A visitor is struck by the appearance of the fine buildings of this place, and one would naturally ask the question, how came such fine buildings to be put on land so naturally poor? The bulk of this land is a light sandy gravel and portions of it are very billy.

The buildings are situated some distance from the public highway; the fields in front of them are level. The drive up to the house is through a lane planted with young trees. There is a fine yard and lawn in connection with the house. The barns are fine and large and there is a fine cement silo standing alongside of them, which is filled each year with corn. The stables are fitted up with water in front of the stock and cement floors.

A feature of this farm is the strong flowing springs of water that boil out of the sides of the hills. These have been made use of by their owner to pump water by means of a hydraulic ram to the house and barns. These hills are so steep that it would be impossible to grow anything like a grain crop upon them but Mr. Groh has planted them with white pine, white ash and other trees. He has several thousand of those trees planted in this way on land that otherwise would be a waste. The farm consists of 285 acres but it is not all a contiguous area, a neighbor's farm lying in between his two lots.

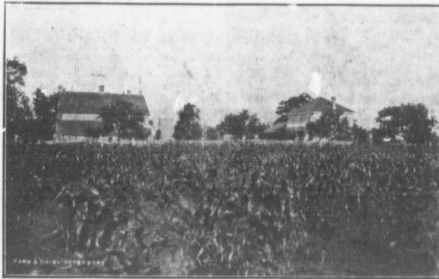
#### WORKED A TRANSFORMATION

At the time that Mr. Groh took possession of this land it was considered a very poor farm. The soil was so poor that it was with difficulty that he secured half a ton of hay time there was not a building on the place that is there to-day. Now, this has all been changed by the energy, pluck and perseverance of the owner, who a few years ago started with a capital of less than \$200. Mr. Groh has erected a fine large, two-story house. It is rough cast and is blocked off like stone. The house is fitted up with a dual water system, both hard and soft, and hot water on tap, bath room and every convenience of that kind.

Instead of cutting half a ton of hay to the acre—the usual yield at one time—Mr. Groh this year cut two and a half tons of clover hay per acre. A large part of his fall wheat if judged by its appearance

when standing would yield from 30 to 35 bushels to the acre. Mr. Groh is a great believer in labor saving machinery. He uses two gasoline engines, one on the home farm large enough to run his ensilage cutter, grinder, circular saw and perform other work of that kind, the other a pumper which is used on the other farm. On this

other farm where his son resides (though he is unmarried) which is considered part of the farm under consideration, there is erected a fine stone house, barns and cement silo. The small gasoline engine in use here, besides pumping water, is used for running the cream separator and for churning. About two acres of good orchard, and an excellent garden in which are grown all kinds of vegetables and fruit, are a noteworthy part of their farm. A field of sugar beets is grown for the Sugar Factory.



Buildings on Mr. Anson Groh's Farm—The Cornfield in the foreground

The farm, owned and worked by Mr. Anson Groh, which is a competitor in Farm and Dairy's Prize Farms Competition, has been transformed from a very poor farm to one of very fair production. Read the adjoining article describing this farm.

Forty acres of the farm is in bush, this including that planted by Mr. Groh. It contains some very valuable timber. The cattle have been kept out of the bush for several years and it is growing up with a fine growth of young trees.

#### GETS RID OF UNPROFITABLE COWS

Mr. Groh has a fine lot of Holstein cows, a number of them being registered. The milk is weighed daily night and morning and is tested with the Babcock tester. This enables him to detect any cow that does not return a profit. Such a cow soon finds her way to the butcher.

A five year crop rotation is followed, it being one year wheat, one year clover and grass, one



A Hillside that has been Planted with Forest Trees

The little white pine trees that have been planted on this hillside cannot be seen in the illustration, but Mr. Groh invites us all to come and see them in five years from now. Hidden in long grass and weeds at the foot of the hill is the hydraulic ram, which has furnished the farm water supply on Mr. Groh's farm for the past 20 years. Further information is given in the article adjoining.

year corn, one year oats, one year clover and grass. Considerable alfalfa is grown but this is not included in the rotation.

Under this system of farming and business management Mr. Groh has turned what was originally a poor farm into a beautiful and profitable one.—H. G.

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## Save Timber Land from Becoming Waste Through Fire\*

Dr. B. E. Fernow, Dean of Forestry, Toronto

Having committed myself without reserve to the perfectly sane and practicable proposition of the policy of waste land planting in Ontario, I cannot allow the opportunity to pass, of pointing out that a still saner and also perfectly practicable proposition, in which every citizen of Ontario should be concerned, is to obtain from creating further waste lands.

Does it not seem almost absurd to spend money and energy in one place to recover waste places, and at the same time do next to nothing to prevent the increase of waste area? Is it not like saving at the spigot and wasting at the bung-hole, when for the few hundred acres that you may recover by planting, you let thousands of acres be turned into wastes by fire?

### NOT AN EASY PROBLEM

I know the government is making great efforts in coping with the fire fiend, and the problem of

will in 50 years have come to \$112,797, a clear saving of \$87,000 not counting the time which the natural forest is ahead.

Would it not be a wise plan to begin in good earnest such "United fire protection?"

At present, by attempting to protect the whole province only small security can be attained for the protected areas. Usually most attention is given to keeping the fires out of the commercial timber, and the young growth in the slashes receives little consideration.

These planting plans, I hope will wake up the people to a realization of the value of young growth—the prospective value of the timber of the future.

## Diseases of the Horse's Foot—Corns

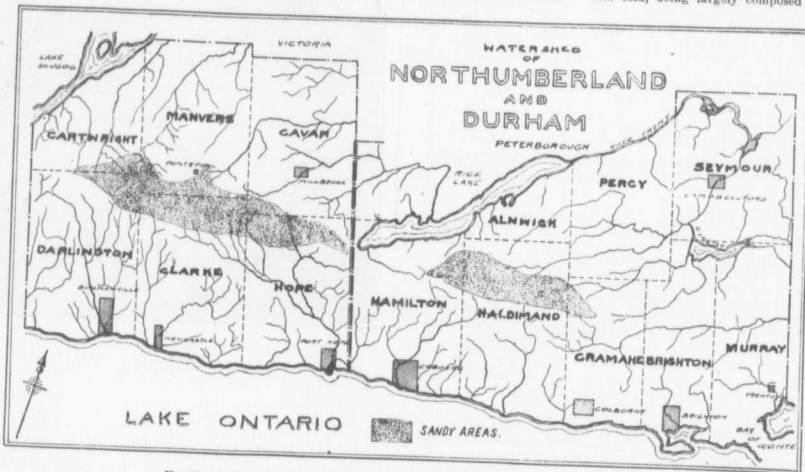
Dr. H. G. Reed, V.S., Halton Co., Ont.

A corn is an inflammation of the sole of the foot. It is situated in the triangular space between the frog and the wall at the heel. It occurs usually in the fore feet and almost invari-

## Wintering a Flock of Sheep

The flock should be strong and in good flesh when the winter sets in, and they will be, if reasonable provision has been made for fall feed. If in good condition they will be the more cheaply wintered. They can be kept doing well on clover hay and a liberal feed of pea straw. If a little grain be fed for about four weeks before they lamb—one pound per head each day of mixed oats and bran is good—they will be in good condition when lambing time comes. The grain feed should be doubled after lambing and the quantity of roots (mangels or turnips) increased to nearly all they will eat. This will insure a good flow of milk, and it is during the first two months a lamb is sent on the road to profit or becomes stunted and small. After that age they can more easily be helped by other foods.

The reason for not feeding the ewes largely with roots before lambing is that they are bulky and cold, being largely composed of water, and



Map Showing Watershed of Northumberland and Durham Counties, Ont., in Relation to Sand Lands.

The watershed as shown is not entirely waste land. The poorest land lies in an area beginning about a mile and a half west of Burketon on the C. P. R., and extends east to the end of Rice Lake, having a width varying from three-quarters of a mile to two miles. The whole of this area is by no means unsuited to agriculture, for some good land will be found in isolated areas of small extent. It is safe to state that 75 per cent. of it is wholly unfit for successful farming. Notice the large number of small streams having their origin in these sandy areas. Many of them have almost ceased to exist, except for a short time during spring fresh-

ets.—Extract from "Reforestation of Waste Lands."

stopping all forest fires is not an easy one, if not impossible. But it would be possible to select certain areas stocked by nature with young growth and concentrate the effort of saving it from destruction just as it is proposed to plant and, of course, protect these limited waste areas—thus saving the planting cost and gaining in time of growing the crop.

For example, take a tract of 5,000 acres, employ two men all the year round to keep the fire out, patrolling it during the fire season and preparing for protection by cleaning up, cutting trails, fire lines, roads, improving conditions generally, etc., in winter. These men could, no doubt be had for \$1,000.

### COST OF PLANTING VS. PROTECTION

To plant a 5,000 acre tract would cost not less than \$50,000 which is only 3 per cent. interest, if spent in the first five years, will in 50 years have made the plantation cost \$200,000. If we were to spend, instead \$1,000 a year on fire protection of a ready grown young forest the cost

ably on the inside heel. It is the result of a bruise of some kind, sometimes caused by a stone becoming lodged between the frog and the shoe; more frequently by improper shoeing. Weak feet are much more likely to develop corns than strong ones.

### SYMPTOMS

The horse will go a little sore, sometimes decidedly lame, the parts will evince tenderness on pressure. If the sole is pared off a little the tissue will appear of a red color, in more advanced cases pus or matter will have formed in which case the sole should be cut away deep enough to allow the pus to escape.

### TREATMENT

If pus has not formed it will be sufficient to remove the shoes, pare out the sole to expose the inflamed, reddened tissue. Then apply a warm poultice of bran or mashed up potatoes, or better still of linseed meal, the object being to allay the inflammation of the part.

When the shoe is applied again care should be taken to see that it is made narrow at the heel to guard against any undue pressure on the part. A horse with a fairly strong foot is not likely to suffer from corns if properly shod.

when eaten in large quantities seem to affect the foetus so that the lambs are born soft and weak and very difficult to save. Either turnips or mangels can be fed to ewes with safety, although very many prefer turnips before lambing and mangels after, because the latter are considered better milk producers. But mangels should never be fed to rams. They have the effect of producing stone in the bladder, and sometimes cause serious loss. Turnips do not have this effect and sheep should have some succulent feed when not on pasture. Ensilage is not a safe food, it often, or generally is too acid, and will cause severe indigestion, which will in turn cause a loosening of the wool by feverish heat in the skin, and much of the fleece is often lost besides lowering the vitality of the sheep.—("Sheep Husbandry.")

It does not matter if the bull's pedigree extends for several miles, if the bull has not been bred from a dam and grand dam that were good milkers. Dairy farmers who look only at the pedigrees of their bulls and not at the milking qualities of their dam, are apt to be disappointed.—C. F. Whitley, in charge of Records.

\*An extract from an address delivered before the Forestry Commission, held in Cobourg last June. The first part of the address was published in Farm and Dairy November 4.

## Canadian Horses at New York

Canadians were well to the front in the awards at the recent New York Horse Show. Graham Bros., Claremont, Ont., won first and second in class for Clydesdale mares on Crealy Gem and Lady Fergus. They captured first in Clydesdale stallions with Baron's Fame and third with Duke of Montrose; Hodgkinson & Tisdale of Beaverton won second on Abbey Bleaco. Graham Bros., won first and third in Clydesdale class 28, on Meteor and Coniston, respectively; Hodgkinson & Tisdale second on General Favorite. Gartley Pride in the aged stallion class took first; Boreland Chief, third, both owned by Graham Bros.; Hodgkinson & Tisdale took second on Royal Baron. Gartley Pride captured the Vanderbilt Championship Cup for the best Clydesdale stallion, Graham Bros.; Meteor being reserve.

The bay gelding, Sir Edward won a fine victory in the final for mile weight hunters, for his owner, the Hon. Adam Beck of London. The Wasp was highly commended in fourth place. Sir Edward also captured third in the class for hunters to be ridden by amateur owners, members of a recognized club. Graham Bros., in addition to their winnings on heavy horses, were also successful with their hackneys. In the corinthian class for hunters and jumpers, Crow and Murray's The Wasp, Confidence and Melba qualified as well as Hon. Adam Beck's Sir Edward and Sir Thomas and Mrs. Beck's Sir Frederick.

## Ontario Field Crops of 1909

The following statements give the area and yields of the principal field crops of Ontario for 1909. The areas have been compiled from individual returns of farmers and the yields by a special staff of the Dominion in addition to our regular crop correspondents:

**Wheat**—668,375 acres yielded 15,967,653 bush., or 24.1 per acre, as compared with 16,430,476 and 24.3 in 1908. The annual average per acre for 28 years was 20.8.

**Spring Wheat**—135,161 acres yielded 2,223,567 bush., or 16.5 per acre as compared with 2,197,716 and 15.5 in 1908. Annual average 15.9.

**Barley**—695,262 acres yielded 18,776,777 bush., or 27.0 per acre, as compared with 20,888,569 and 28.5 in 1908. Annual average 27.7.

**Oats**—2,695,585 acres yielded 90,235,579 bush., or 33.5 per acre, as

compared with 96,626,419 and 34.8 in 1908. Annual average 35.6.

**Rye**—94,661 acres yielded 1,578,921 bush., or 16.6 per acre, as compared with 1,453,616 and 16.5 in 1908. Annual average 16.4.

**Buckwheat**—176,630 acres yielded 4,280,790 bush., or 24.2 per acre, as compared with 3,323,668 and 23.6 in 1908. Annual average 20.0.

**Peas**—381,609 acres yielded 7,612,659 bush., or 20.0 per acre, as compared with 7,401,336 and 18.7 in 1908. Annual average 19.4.

**Beans**—45,029 acres yielded 826,344 bush., or 18.4 per acre, as compared with 789,757 and 16.9 in 1908. Annual average 17.2.

**Potatoes**—169,695 acres yielded 24,645,283 bush., or 145 per acre, as compared with 18,517,642 and 111 in 1908. Annual average 111.

**Mangolds**—70,488 acres yielded 28,928,347 bush., or 410 per acre, as compared with 29,870,966 and 440 in 1908. Annual average 458.

**Carrots**—3,506 acres yielded 1,001,653 bush., or 286 per acre, as compared with 1,120,145 and 275 in 1908. Annual average 346.

**Sugar beets**—19,812 acres yielded 7,001,565 bush., or 353 per acre, as compared with 7,004,748 and 401 in 1908.

**Turpines**—113,400 acres yielded 50,788,940 bush., or 447 per acre, as compared with 41,210,189 and 341 in 1908. Annual average 429.

**Mixed grains**—474,530 acres yielded 16,199,434 bush., or 34.1 per acre, as compared with 15,354,350 and 33.7 in 1908.

**Corn for husking**—322,789 acres yielded 22,619,690 bush., (in the ear) or 70.1 per acre as compared with 23,601,122 and 78.8 in 1908. Annual average 71.0.

**Corn for silo**—288,816 acres yielded 3,374,655 tons (green) or 11.70 tons per acre, as compared with 2,729,265 and 11.68 in 1908. Annual average 11.45.

**Hay and clover**—3,228,445 acres yielded 3,885,145 tons or 1.20 tons per acre, as compared with 4,635,287 and 1.42 in 1908. Annual average 1.45.

There are 3,180,780 acres of cleared lands devoted to pasture, 231,707 in Summer Fallow, 300,364 in orchards 24,614 in small fruit, 11,420 in vineyards, 57,123 in farm gardens, 37,548 in rape, 11,233 in flax and 4,101 in tobacco (of which 3,200 are in Essex yielding 4,388,544 lbs.

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## Ontario Bee Keepers Elect Officers

The Ontario Beekeepers' Association in Convention in Toronto last week elected as officers for the following year:

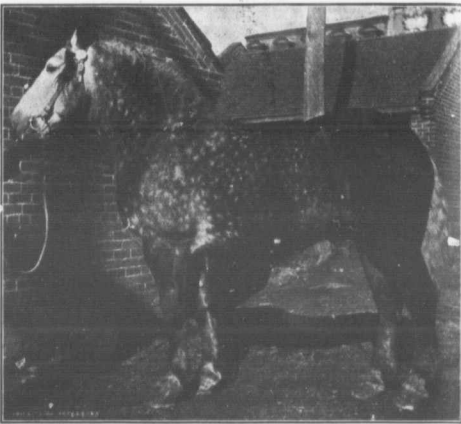
President, William Couse, Streetsville (re-elected); 1st Vice-President, W. J. Craig, Brantford (re-elected); 2nd Vice-President, W. A. Chrysler, Chatham; Secretary-Treasurer, P. W. Hodgetts, Department of Agriculture, Toronto (re-elected).

Some of the principal papers and addresses were "Wax Craft," by J. L. Byer, Mount Joy; "The Value of our Reports on Crops and Prices," by W. J. Craig, Brantford; "Some Features

ables," was the subject of an address by Mr. W. G. Waid, New Carlisle, Ohio, who pointed out that this industry is remunerative. Good soil, plenty of fertilizer, overhead irrigation, proper temperatures and good ventilation are requisites to success.

Mr. G. H. Clark, Seed Commissioner, Ottawa, discussed seed legislation. He stated that many of the evils in connection with clover and grass seeds already have been remedied. The difficulty lies in controlling seeds that are imported. When home-grown seeds are used exclusively control will be more possible.

Small fruits in connection with vegetable growing were discussed by Mr.



A Beautiful Dapple Grey Percheron Stallion of the Good Old-Fashioned Type

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of My Year's Work," by Morley Pettit, Provincial Apiarist, Jordan Harbor; "Queen Rearing and Honey Production," by Frank P. Adams Brantford; "The Importance of Requeening," by H. J. Sibbald, Claude; and "The Advantages of a Standard Hive," by J. Alpaugh, Dobbington. The question whether honey should be sold in gross or net weight tons was discussed, but as opinion was divided on the subject a committee was appointed to deal with the matter.

## Vegetable Growers Meet

At the convention of the Ontario Vegetable Growers' Association held in Toronto last week, the president, Mr. T. Delworth, of Weston, in his opening address, dwelt on the importance of getting the best seed possible and on the difficulties in securing same. He spoke also of the methods of marketing in vogue in parts of the United States which might be copied to some extent here. On account of too many middlemen our growers are not getting the profit that they should.

A report on cabbage and cauliflower growing in the United States was made by Mr. A. McMeans, O.A.C. Guelph. Among the many points mentioned was that large growers over the line reduce expenses by conveniences in storage and shipping. Shrinkage in cabbage stored is as much as 25 per cent. up to April 1st. A report on vegetable growing at the Jordan Experiment Station was made by Mr. H. S. Teart, the director. "Greenhouse Growing of Veget-

W. C. McCalla of St. Catharines, who pointed out that the market gardener who is an intensive grower is the fittest man to grow small fruits. In bad seasons a variety of crops often give a profit while only one or two may result in failure.

Insects that affect market gardens were ably dealt with by Mr. C. W. Nash of Toronto. Mr. Nash said that Toronto is the breeding ground of scale insects and other injurious pests. Various garden insects were described and remedies suggested.

An excellent address on potato culture was given by Mr. W. T. Macoun of the Central Experimental Farm, Ottawa. It appears elsewhere in this issue.

The pure bred young pig I received from Farm and Dairy through Mr. Featherston & Son, Streetsville, Ont., is a first-class pig. We are well satisfied with it and it looks to be everything Farm and Dairy represented it to be. We secured it in return for a club of seven new subscriptions.—Hold. Young, Carvellville Co., Ont.

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R. W. HODSON, Secretary-Treasurer, Live Stock Commissioner's Office, Dept. of Agriculture, VICTORIA, B. C.

N.B.—Competitors before entering competition must be duly enrolled as members of the British Columbia Dairymen's Association, the membership fee being One Dollar, which should be forwarded to the above-named Secretary-Treasurer.

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### Home Curing of Bacon

Having split the carcass, take off the ham, and then the leaf-lard, leaving the kidney on the pork. Now saw the ribs down the centre lengthwise, and take out the flat ribs in one piece; you can now either take out the length pork in one length—namely, neck, loin and girdle—or cut off the shoulder with the neck part on it and what is known to the trade as a middle is then left.

The sides or middles, whichever way they are cut, are now ready for salting. If the weather is at all suitable, place them in a good draught for a few hours to harden, before salt-

taken. After the last powder has been taken fast for eight to 10 hours and then give each a purgative of eight drams aloes and two drams ginger. Feed bran only for 24 hours after administering the purgative.

### Experiment Work on Potato Culture

(Continued from page 4)

*Irish Seed Compared with English Seed*—Showing the total average yield per acre from Irish and English seed potatoes grown at a number of centres in England and Wales in 1907.

	BRITISH QUEERS		UP-TO-DATE		Average Total Yield
	Irish Bush. lbs.	English Bush. lbs.	Irish Bush. lbs.	English Bush. lbs.	
England.....	331	48	314	4	411
Wales.....	321	32	302	8	419
					256
					56
					32
					centres

ing. If the weather is warm, and not suitable for keeping, of course, get it cured as early as possible. The old-fashioned method of curing—namely, putting the meat on a table and rubbing with salt until the hands nearly get cured as well, is now extinct where any weight of bacon is cured. The method (and it is a good one) in use at the present time is to put the bacon in pickle for three days before dry salting.

#### PREPARING AND USING THE PICKLE

The ingredients of a good pickle are as follows, and, in these proportions:

Sodium chloride (common salt) 5 lb.; Potassium nitrate (saltpetre) 1-2 lb.; Water (cold) 2 gallons.

The above will give a specific gravity of 1.14 at ordinary temperatures. If you prefer a sugar brine, mix as before, with the addition of 1-2 lb. of sugar, when the sugar is added the specific gravity will be 1.16.

The use of a hydrometer in the mixing of brine is of great service, it being more reliable than the old-fashioned method of putting a pig's foot in to see if it floats. If you are curing the carcass in sides, put it in pickle for three days, turning each day. Then take them out, and let them drain a little, lay them on the salting table on a bed of salt. Sprinkle a little saltpetre on the lean parts of the shoulder, then sprinkle salt over the entire side. Let this stay on for about three days, and then lift up the side, and dump it on the table, afterwards sprinkle salt alone over it, and let it stand from nine to 12 days, according to size. After this, take out of the salt, and wash with clean, cold water, common salt being nearly as soluble in cold water as hot, and hang up to dry for use.

When middles are salted, put in pickle for two days, afterwards in salt for six or seven, take out and wash as before.

When hams are cured alone, take out the hip-bone, and put in pickle for a few days; then salt for 21 days, and place a little saltpetre in the hole when you take the bone out; strike the thick part. These methods should answer pretty well in home curing.—H.G.

### Our Veterinary Adviser

**WORMS IN HORSES.**—Our horses have all been affected with worms for a number of years. We have periodically fed them hardwood ashes, but the ashes do not seem to have the desired effect. It is worth while to make further efforts to get rid of these worms. And do they do much harm? What treatment would you advise?—C. F. H. Peterboro Co., Ont.

When worms are present in large numbers they interfere with a horse's thriftiness.

Give each horse one dram each of sulphate of copper, sulphate of iron and tartar emetic twice daily for 12

It is now fairly well proven that the cause of the potato blight being better from Scotland and Ireland than from some parts of England is that the tubers in the former countries are not hurried to maturity by hot dry weather, and on this account have more vitality or power to make strong growth when planted than where the summers are comparatively hot and dry.

Coming nearer home the conditions in the drier and warmer parts of Ontario may be compared with England while the conditions in the moister and cooler parts of Ontario and the Maritime provinces may be compared with Scotland and Ireland. It is possible that as marked results could be obtained from a change of seed from Northern Ontario as from Nappan Nova Scotia. It may even be that seed potatoes from a cool, moist clay loam soil near home might show some striking results.

There is a difference between immature tubers and prematurely ripened tubers. Potatoes grown in cool climates tend to be immature. Potatoes grown in warm climates tend to be prematurely ripened. Immature potatoes may have been growing vigorously and the tops be cut off by frost, or they may be dug before the tubers are dead and before they are perfectly ripe. The tubers are checked in growth but are full of vitality. It is interesting to note that immature potatoes have been recommended for seed potatoes in England for at least 100 years.

#### IMMATURE POTATOES RECOMMENDED

The Department of Agriculture for Ireland makes this recommendation: "Immature Seed:—It is now recognized that seed from crops lifted before they are fully mature will produce a more vigorous plants, and, consequently, heavier yields than seed from crops which have been allowed to become fully ripe. In Ireland this applies more particularly, perhaps, to early varieties, but it is a point worthy of notice by growers of seed potatoes."

At the Central Experimental Farm the seed from tubers grown from potatoes planted on June 23rd, and even on July 7, 1890, yielded in 1900 more than those from potatoes planted May 22nd, 1899. The late planted ones were not so mature, or were immature when dug.

We shall leave this subject now with the recommendation that all growers of potatoes should try some seed from milder and moister climate where potatoes have been grown very good potatoes have. It would be valuable work in connection to try some conclusions in this direction.

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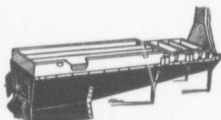
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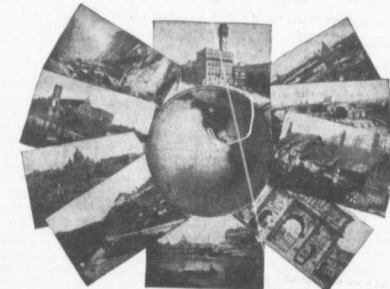


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# POULTRY YARD

## Remedies for Chicken Mites

H. C. Pierce, Iowa State College  
Experimental Station

The best remedies for mites are cleanliness, sunlight, and spraying with disinfecting solutions. The poultry house and its fittings should be so built as to be easily cleaned. The walls should be smooth and as free from cracks as possible. Nests, roosts, and dropping boards should be easily removable to facilitate spraying of their entire surface and the walls beneath them.

There are several preparations for the eradication of mites of which four good ones are given below:

**CREOSOL SOAP.**—Shave or chop one ten-cent cake of laundry soap into one pint of soft water. Heat or allow to stand until a soap paste is formed. Stir in one part of commercial cresol and heat or allow to stand until soap paste is dissolved. Stir in one gallon of kerosene. For use dilute with 50 parts of water, which will make a milky, colored liquid.

Commercial cresol is a coal tar by-product and may be obtained from the druggist at about 30 cents per pound. Care should be taken not to get any of it upon the hands or face as it will cause intense smarting.

**KEROSENE EMULSION.**—Shave or chop one-half pound of hard soap, add to a gallon of soft water, place on a fire and bring to a boil to dissolve the soap. Remove from the fire and stir in while hot two gallons of kerosene. This makes a thick, creamy emulsion which may be kept as a stock solution. For use dilute with 10 parts of soft water. It is better to apply it hot if possible.

**KEROSENE AND FLAKE NAPHTHALENE.** Dissolve in two gallons of kerosene all of the flake naphthalene you will take. Apply with dilution. Flake naphthalene is a petroleum by-product in the form of white flakes. It is the basis of most balls and has the same penetrating gas in odor. It may be obtained from the druggist at a cost of from 8 to 15 cents per pound, depending upon the amount purchased.

**KEROSENE AND CARBOLIC ACID.**—Add 1 cent of crude carbolic acid to 3 parts of kerosene. Apply with dilution and keep stirred while applying. Crude carbolic acid is preferred to the better grades because of its containing other coal tar compounds in addition to phenol.

Of these preparations probably the best is the cresol soap solution as it is readily prepared, cheap, efficient, and easily applied. It is used at this station in preference to all other similar preparations.

Any of the commonly advertised coal tar stock dips may also be used with satisfactory results. They may be diluted with 50 parts of water.

These mixtures may be applied with a large brush or with a spraying machine. A good spraying machine is quicker and more efficient than a brush. Great care should be taken to kill thoroughly every crevice in the walls, perches and nests with the liquid. Any of these mixtures will kill every mite with which it comes in contact, but it is impossible to get all of them with one spraying. Two thorough sprayings should be made on the first day. The next day a careful examination should be made and if any mites can be found alive, the house should be thoroughly treated again. Although these solutions will kill the adult mites, it is not likely that they will reach the young eggs and prevent them from hatching. The houses should, therefore, be thoroughly sprayed twice again at intervals of one week. This will catch any mites that have hatch-

ed out from eggs laid previous to the first sprayings.

Before sitting hens are placed upon eggs for hatching the nest should be thoroughly saturated with some one of these preparations to kill any mites that may be present and to forestall immediate infestation. A tea-spoonful of the undiluted cresol soap solution placed beneath the straw in the hollows of the nests will keep them free from lice as well as mites but it should not come in contact with the eggs.

Extreme care should be taken that some of these mixtures come in contact with eggs that are to be sold for table purposes, as they will be spoiled in taste. Customers who obtained such eggs from the station flock, which had been sprayed with cresol soap solution, complained that the eggs tasted of carbolic acid.

## Some Facts Concerning Fertility

How many hens should be placed in a pen with a male bird of good fertility? That question is asked time and again by beginners and it might be interesting to note the differences of opinion. Having secured the best results can be obtained both in fertility and vigor of chicks, by having two males for each pen, and using them alternate days. If one has but a few hens, say a half-dozen or less, best allow the male with them; but for a half day at a time. Professor Wheeler says some of the best results in fertility eggs and good hatching that he has seen is a crop arranged with a year-old male. The hens were in three pens, four in one, and three in each of the others. The male was in each pen one day in three. Stevenson says he always had the best results for fertile eggs when he kept about 30 to 40 hens in one pen, and kept two vigorous cockerels, allowing only one of them with the hens at a time. Having a crop arranged for the purpose, and changing them every day. Mount prefers using enough hens for one cock in each pen. With the small, active breeds such as Lehighs, Gamefords, etc., 30 hens to one cock are about the number, and with the larger breeds, such as Wyandottes, Plymouth Rocks, etc., 45 hens to one cock. With Brahmans and all very large breeds, 10 hens are enough for one male.

Speaking of fertility, Fred Grundy says small, penned-up flocks, comprising six to 12 females and one male will give 60 to 80 per cent. of fertile eggs, and strong chicks, for 15 to 25 days at the beginning of the season. After that the per cent. of fertility decreases rapidly, and the chicks are invariably weak, and never make good, vigorous breeding fowl. It pays well to have two male birds for each pen, and alternate them. It is a practice the writer has used in this way for years with marked success.—P.C.E.

## Roupe! and How to Prevent it

Roupe is considered contagious by eminent authorities. Sanitary conditions are a powerful factor in the transmission of the disease after it is once started. The symptoms of the disease are very noticeable. Among the first to be observed is the thin watery discharge followed by obstructed breathing. These cases may be readily recognized by passing through the houses at night.

Dr. G. E. Salmon claims that the inflammation extends, as the disease advances, from the membrane of the nasal cavity, through the connecting passages. The space surrounding the eye connects with the nasal passage consequently this becomes inflamed and a bird in such a condition presents a most miserable appearance. Sometimes the inflammation is so far advanced that the bird is completely blinded.

In the later stages of the disease the false membrane obstructs the nasal passages, presses down the palate, and may prevent swallowing. The specific agent which causes roupe is not definitely known. Dr. Hadley of the Rhode Island Experiment Station, in a recent contribution claims that in several cases of the disease, he found parasites (coecidia) present on all the mucous membranes in sufficient numbers and stages to produce nearly all the diseased conditions. Just as Morse claimed that white diarrhea is caused by a Coccidium, and that it attacks the digestive organs, and blackhead is a coccidiosis of a special part of the intestines and the liver in turkeys, so this writer believes that many, but perhaps all cases of the disease popularly called "roupe" are instances of an infection by those parasites of the mucous membranes of the head region with or without intestinal complication.

### PREVENTIVE MEASURES

Here again, as with most of the diseases, the measure to be followed out is one of prevention. Healthy birds should be removed to clean quarters. Antiseptic solutions should be injected into the nostrils and the roof of the mouth. The pus like or cheesy deposits should be removed and the cavities carefully washed with antiseptic solutions. The following solutions have been recommended by several writers:

1. Two per cent. solution of creoline. 2. Two per cent. solution of carbolic acid. 3. Peruchine of Hydrozo and water, equal parts. 4. One grain permanganate of potash to a mixed bulk equal parts of lard or olive oil.

White spots usually accompany the development of diphtheritic roupe seen scattered about on the roof of the mouth and on the connecting air passages. Dr. Salmon recommends that a two per cent. solution of creoline be applied to the diphtheritic spots in the nostrils and eyes. A mixture of iodo-cresol has been advised, the diseased parts successfully being cured, 15 grains to an ounce of water, may be applied to the snath, nostrils and eyes.

Everything about the poultry houses should be thoroughly disinfected. The feeding troughs should be washed with a solution of carbolic acid, one and two-third ounces of carbolic acid to one quart of water. Any following from Watson's Farm Poultry may be mixed with the food several hours before feeding as a curative and a preventive agent. A pinch of the following mixture for each fowl:

Hypo-sulphite of soda, 50 grains; Salicylate of soda, 50 grains; Pulverized ginger, 200 grains; Pulverized yellow gentian, 200 grains; Pulverized sulphate of iron, 100 grains. Sulphate of iron should be given in the drinking water, 1-1/2 grains to a quart of water.

**The Full Crop.**—It is a good plan to visit the poultry house after the birds are on the roost and feel of their crops. You may be surprised to find now and then one with a crop nearly empty. When this condition exists you may be sure that there is something wrong; she may not be getting her share of the food, or may have been so well fed during the early part of the day that she did not eat much of the night meal. It is a good plan to examine the crop now and then. They should be full at night and empty in the morning. If you find one or two in the flock that does not seem to be doing as well as the others, just examine the crop night and morning, and if you find that it is not right take her away from the rest and feed separately.

The feeding of sprouted oats, as well as cut clover, should begin now, if the green food supply is out off.

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### Poultry Pointer

If breeders would learn to cull closer, success would come much quicker.

No flock of fowls, regardless of breed will bring a profit to their owners unless they are properly cared for.

Clover is a tonic for the fowls and promotes digestion and largely assists the elements for egg production.

Grit is necessary. Keep a box of grit before your fowls now and do not neglect it. It is their teeth.

Most hens prefer the trap nest to lay in; as a rule they are semi-dark, and this just suits biddy.

Eggs are now higher in price and you can well afford to spare a little extra time now with the poultry, in feeding and care.

There is a way to realize a profit from your poultry during the winter months, but it is not the way of the average farmer.

Don't close up everything tight, just because cold weather is here; fresh air and sunshine are two necessities for perfect health of the fowls, but drafts must be avoided.

New resolutions will soon be in order and why not begin now to think what new ones you will make in the poultry yard? If you begin to consider now, your new resolutions will contain no mistake, but will be for future advancement.

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## HORTICULTURE

### Ontario Fruit Growers' Convention

The fiftieth anniversary of the Ontario Fruit Growers' Association was marked with great enthusiasm and a large attendance. An excellent number of addresses were given and discussed at the convention held in Toronto, Nov. 10 and 11. The only living charter member of the association, Mr. A. M. Smith, of St. Catharines, was presented with an illuminated address and a purse of money in recognition of his work to the fruit industry of Canada, and of the esteem in which he is held by the members of the organization.

The association passed resolutions respecting legislation that have to deal with the development and progress of the fruit industry. A new Fruit Pest Act was proposed to cover the present Acts respecting these things, and in addition to include certain injurious insects and fungous diseases that have become prevalent since existing Acts were framed. The proposed Act will control all leading injurious pests of the orchard including San Jose scale, codling moth, little peach black knot, yellow and crown gall. The proposed Act will repeal the present Acts respecting yellow, black knot and noxious insects. Pear blight and pear scab may be added to the Act on the recommendation of the association.

The association will submit to the Government a recommendation to amend the Pharmacy Act by adding white arsenic to the list of poisons that may be handled by grocers and others outside of druggists and chemists. A committee was appointed to draft and submit to the Dominion Government an Act to cover the adulteration of all chemicals used by fruit growers.

In his opening address President E. D. Smith reviewed the progress of fruit growing during the past half century. He said that the future of apple growing in this province is perfect fruit. The Ontario Government should establish short courses in apple packing in all fruit districts. The compulsory care of orchards and training in packing and marketing fruit other workers in improving the apple industry of the whole country.

#### SMALL FRUIT CULTURE

Small fruit culture in Ontario during the past 50 years was dealt with by Mr. A. W. Peart of Burlington. He traced the history of small fruit culture by periods of 10 years, the most recent of which was marked by much progress. He estimated the area in small fruits for 1909 at 9,000 acres. He said that the outlook for the future is promising. Better systems of distribution, an increase of population, the advancing tide of immigration towards the north-west and our farmers are creating a demand for our fruits, both fresh and canned, the potentialities of which are unlimited.

The advisability of growing small fruits in young apple orchards was discussed by Mr. T. C. Hamilton of Lorne Park, and the overplanting of strawberries was dealt with by Mr. Robert Thompson of St. Catharines. These papers will be reported at length in a later issue.

#### CHERRIES

"Sweet Cherries for South-Western Ontario," was the subject of an excellent address by Mr. C. Stewart of Homer. He pointed out that the soil for this class of fruit should be light and dry. The varieties recommended were Gov. Wood, Alton, Na-

polcon Biggareau, Black Tartarian and Wampler. Mr. A. E. Sherrington of Walkerton dealt with sour cherries. These papers will appear later.

#### GRAPES

The premature marketing of grapes was the subject of an interesting discussion. The general consensus of opinion was that this is a mistaken policy. Grapes picked before they are ripe hurt the market. How grapes are grown in New York State was told by Mr. D. K. Falvey, Westfield, N.Y.; "The Grape Growing Profitable at Present Prices" was ably discussed by Ontario's well-known vineyardist Mr. Murray Pettit, Winona. The speaker claimed that there is no profit in grapes at 10 or 12 cents a basket, which was the prevailing price this year.

#### PEACHES

The question of pruning peaches was dealt with by Messrs. J. W. Smith of Winona, Wm. Armstrong, Queenston and others. From these address and discussions that they incited it would seem that our growers are now adopting the low-headed trees in preference to high headed ones. Practical principles for profit-

In a practical address on spraying, Mr. Max Smith of Burlington stated that it costs to spray three times during the season with lime-sulphur and arsenate of lead about 33 cents per acre, by using a power sprayer. By the use of this combination, Mr. Smith has had excellent results. The value of lime sulphur as a summer spray compared with Bordeaux mixture was discussed by Mr. L. C. Casper of Guelph. These papers will be reported in a later issue. A number that took address and discussions that other places also will appear later.

### Ontario Horticultural Exhibition

(Continued from page 2)

exhibits were shown by Brant and York.

The most striking feature of the fruit department was a grand display put up by the Norfolk Fruit Growers' Association which is illustrated on this page. This exhibit reflected much credit on this association and on the district in general. Northumberland and Durham also had a fine display of about 40 or 50 varieties



A Striking Display at the Ontario Horticultural Exhibition in Toronto, Last Week

This exhibit was put up by the Norfolk Fruit Growers' Association, Simcoe, Ont., of which Mr. James E. Johnson is manager. It was a prominent feature of the exhibition. The fruit was well-colored, clean and of good size, and was all graded by members of that association. The display was an excellent advertisement for that district.

able peach production were referred to by Mr. C. E. Bassett of Fenwick Mich.

#### PEARS

Much valuable information was given on pear culture by Mr. W. E. Fisher of Burlington and Mr. J. R. Cornell of Newburgh, N.Y. These papers will be referred to at further length in another issue. Mr. Cornell pointed out the cultivation, fertility, light pruning and intelligent spraying are necessary in the production of this crop.

#### APPLES

The marketing of apples was discussed by Mr. R. J. Graham of Belleville, who stated that there is a splendid opportunity for popularizing Canadian apples in the British markets. Mr. C. E. Bassett told of the advantages of co-operation, and stated that such were obtained not only in the selling end, but also in the buying of supplies needed by growers. Mr. S. E. Todd of Guelph showed, by the use of charts, that most of the district bordering on Lake Huron could be made into one large orchard. In his report of a survey made there during the past season he showed that it pays to spray, fertilize, cultivate and organize,

of apples, all good samples.

The St. Lawrence Experiment Station at Mattland, of which Mr. Harold Jones is director, made an excellent display of the varieties grown there. A striking feature of this display were the large, perfect, highly-colored specimens of Fameuse which propagating from a bearing tree in his orchard that produces a superior strain of that variety. Lake Huron Experiment Station, at Walkerton, through its director, Mr. A. E. Sherrington put up a large and attractive exhibit of fruits in the fresh state and in bottles.

The specimen apples or standard varieties for which first prizes of \$10 and second prizes of \$5 were offered, were the subjects of much interest and comment. For most perfect Baldwin, first prize went to Norfolk F.G.A. and second to Robert Thompson, St. Catharines. Greening—1st, C. W. Challand, Marburg; 2nd, R. T. Michael, Brooklin, King; 1st, C. W. Challand, 2nd, W. C. Parker, Humber Bay. McIntosh—1st, John McDonald, Cornwall; 2nd, W. M. Robson, Lindsay. Spry—1st, W. C. Oughtred, Clarkson; 2nd, R. T. Michael.

High-class specimens of apples, pears and grapes were shown in the general plate sections and in pyramids. A large number of entries in preserved fruits attracted much attention.

The vegetable department was with the fruit in quality if not in quantity. The stuff mostly was perfect in variety, type and well grown. First prize for best general collection of vegetables shown went to W. Harris; 2nd, Brown Bros.; 3rd, J. W. Rush, all of Humber Bay.

Fruit Marks Act.—Further prosecutions by Dominion Fruit Inspectors for illegal marketing and packing of apples, have resulted in the following convictions: J. P. Dunn, Streetsville, Ont.; J. A. and E. Brown, Port Hope, Ont.; W. J. Henderson, Port Perry, Ont.; Albert Brought, Port Perry, Ont.; C. F. Chase, Frankford, Ont.; Phillips & White, Frankford, Ont.; Phillips & White, Frankford, Ont.; R. J. Graham, Belleville, Ont.; Thos. Brain, Oakville, Ont.; P. Ainsworth, Brighton, Ont.; Royal Fruit Co., Edmonton, Alta. The fines in these cases ranged from \$10 to \$50.

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AGENTS make big money selling "Vol-Poak" Granite Cement. Mends holes in concrete, masonry, iron, Agate, Tinware, etc. Write for details. J. H. W. MacFarlane, Toronto. Mends a hole in one day. Greatest seller on the market. Agents make over 100 per cent. profit.—M. MacFarlane, Toronto, Ont.

CHEESEMAKER WANTED.—Half interest in up to date factory, and make the cheese, \$1,000.—Box 15, Farm and Dairy, Peterborough.

CHEESEMAKERS—Can secure good winter employment by working nights and days. If you mean business and can carry—1st, earn a good sum weekly, write for particulars to Circulation Manager, Farm and Dairy, Peterboro, Ont.

# FARM AND DAIRY

## AND RURAL HOME

Published by The Rural Publishing Company, Limited.



FARM AND DAIRY is published every Thursday. It is the official organ of the British Columbia Farmers' and Dairy Western Ontario, and Bedford District, Quebec, Dairy-men's Association, and of the Canadian Holstein, Friesian and Jersey Cattle Breeders' Associations.

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**6. WE INVITE FARMERS** to write on any agricultural topic. We are always pleased to receive practical articles.

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Sworn detailed statement of the circulation of the paper, showing its distribution by countries and provinces, will be mailed free on request.

### OUR PROTECTIVE POLICY

We want the readers of Farm and Dairy to feel that they can deal with our advertisers with our assurance of our advertisers' reliability. We try to admit to our columns only the most reliable advertisers. Should any advertiser be found to be dissatisfied with the treatment he receives from any of our advertisers, we will investigate the circumstances fully. Should we find reason to believe that any of our advertisers are untrustworthy, either in the degree of reliability, even in the most trifling circumstances warrant, we will discontinue immediately the publication of their advertising. Should the circumstances warrant, we will send them through the columns of the paper. This we will not do unless we are satisfied that our reputable advertisers as well. All that is necessary to entitle you to the benefits of this Protective Policy is to include in all your letters to advertisers the words, "I have your ad in Farm and Dairy." Complaints should be sent to us as soon as possible after reason for dissatisfaction has been found.

## FARM AND DAIRY

### PETERBORO, ONT.

### SAVE TIMBER LAND FROM FIRE

While attention is being drawn to the matter of reforesting waste areas, the matter of protecting timber land from fire must not go unnoticed. The absurdity of spending money and energy in one place to recover waste lands and at the same time doing nothing to prevent the increase of waste areas in other places, is apparent.

The problem of forestry protection is not an easy one to solve. Some are inclined to look wholly to the Government to devise and operate means of protection; and while the Government authorities might and ought to extend and make more efficient the service already has, much can be accomplished through other means. Each and every citizen should realize his responsibility in this matter. Every man in the country should be impressed with the belief that it is an absolute crime to throw a lighted match or drop other fire where there is danger of it spreading, to leave a camp fire burning, to burn brush close to

the woods in a dry season or in any other way imperil forest property.

It is high time that war be waged against the useless destruction and needless waste of our forest wealth. The area of burned over timber land has assumed alarming proportions in recent years, and as a result, we have, comparatively speaking, very little virgin timber remaining. Young growth, no matter where it be, should be jealously guarded from fire. Its value, while insignificant to-day, will be many times enhanced in the years to come. Without first having this young growth, we can have no larger trees, and with the disappearing of the virgin forest, we must look more and more to the second growth that is coming up to take its place.

### ENCOURAGEMENT FOR OTHERS

Some of those who fail to make a success of farming are inclined to attach the blame to having a poor farm, to lack of capital, and to other similar causes too well known to need enumeration. These men should find encouragement in the record of what Mr. Anson Groh of Preston, Ont., has accomplished, which record is given elsewhere in this issue. To discover and to gather information concerning the farm practice of such men as Mr. Groh, is but one of the many good features of a prize farms competition, such as is being conducted over Ontario this year by Farm and Dairy.

One cannot but say all honor to men of Mr. Groh's type. Starting on a poor farm with little capital, Mr. Groh has with indomitable perseverance and courage, together with the wise application of such information as is available to all, transformed his farm into one of high production, raised a large family, and built a comfortable home equipped with modern conveniences for them, and is one of the best respected citizens of his community.

What is the secret of Mr. Groh's success? Those who know him well could say without fear of contradiction that he simply made a wise application of such information as was available concerning his business, that he has had a full appreciation of the value of a well selected system of rotation of crops, of corn and clover, of carefully selected seed and dairy cattle. The progressive manner in which Mr. Groh has adopted these principles of successful farming, made use of labor saving machinery, and exercised a reasonable degree of thrift, have made for him his success.

### ORGANIZE A GRANGE

There is possibly no one thing that we as farmers are more in need of than organization. Every known line of endeavor, almost without exception, save that of farming, has its federation. The strength of the manufacturer is well known. Labor has become most efficiently organized. As farmers it is up to us to get together.

The Grange is an organization that merits our support. We would do well to lend our influence towards having a branch or subordinate Grange organized. A Grange hearti-

ly supported will work untold good in the community. It will furnish the means whereby we may advance along those lines wherein, as a class, we are deficient.

### HIRE A MAN BY THE YEAR

With the wind-up of fall work in sight, many farm hands are nearing the date when they will have put in their time. Where will they go on the expiration of their term of employment? It can be given as a pretty safe assertion that many as in the past will winter in the cities. A large percentage of these will find employment there and will for evermore be lost to the farm.

The practice of hiring men for eight months only of the year, is largely accountable for the scarcity of farm labor that has existed in recent years. The cry for help comes mainly from those who hire men only for the summer months. Those who hire by the year get a class of men who in most cases are glad that they have cast in their lot with the farm, such men who when properly provided for, become fixtures and prove most satisfactory to their employers.

One of the great advantages of dairying, as it should be practised, is that it provides work the year round, thus enabling hired men to be kept employed at a profit for twelve months of the year. Those who have good short term men, whose time has about expired, should seriously consider providing accommodation and work for them that they may be kept on the farm. It costs very little more to hire a man by the year than for eight or nine months. The efficient man, especially if he have a family that is comfortably housed and provided for, is a prize that few can afford to lose. Such a man becomes a part of the concern, and the investment necessary to retain him will in the final accounting prove to be most profitable.

### A LESSON WELL LEARNED

A noteworthy instance of how one man learned the value of treating oats for smut, was brought to the attention of the Editor of Farm and Dairy recently while in the Muskoka district. The standing crop competitions, as organized and conducted by the Fairs and Exhibitions branch of the Ontario Department of Agriculture, have proved most popular in Muskoka. While judging the crops in this district, Mr. A. E. Calman of Allisonville, remarked of one particular competing field of oats: "It is a grand field, free from weeds, and they are good oats, but they are smutty."

The farmer interested assured our editor that he had learned his lesson. He would never plant oats again without first treating them for smut. Others should take a pointer from this man's experience if not from their own, and save the loss they annually endure through failing to treat their oats for smut. Determine that you will treat your oats next spring. Directions on how to treat them will be given in Farm and Dairy before you will require to make the treatment.

When a cow has done her best and

has succeeded in establishing a new Canadian yearly record for the production of milk it must be very disappointing to see that record broken by some hitherto unknown animal and that almost before the cheers on her behalf have died away. And yet, that is what is happening every little while. It is about time we heard of some new record being established.

Those farmers who are marketing their apples this year through a co-operative association are practically assured of receiving double as much for their crop as farmers who sell their apples individually. We are ready for an extension of the movement towards the co-operative handling of apples.

### Cities Should Assist

(The Examiner, Peterborough)

There is a way that will not only directly compel cities and urban communities to bear their share of the farmer's burdens, but bring the farmer relief in two directions. At present the cities do not contribute, except indirectly and sporadically through Good Roads legislation, to the maintenance of country roads. The cities should, in justice, be compelled to bear their share. Country roads have been in the past built and maintained almost solely in the interests of the farmers. But it is not so now. Automobiles, owned in towns and cities, have invaded our country highways, and, in addition to the danger and obstruction of farm travel they create, they injure and wear out our highways, as is claimed, to a far greater proportionate extent than ordinary vehicles. Now, if the city and town dwellers render unsafe and also wear out country highways, they should be compelled to bear their fair share of the cost in connection with them. This can be done in a way that will be a burden upon neither the city dwellers nor the farmers.

The provincial revenue, while it is provided without direct taxation, is still the property of all the people, and should be expended in a way to do the greatest good to the greatest number. If the roads of the country were assumed by the Provincial Government, especially for a beginning, the leading roads, and Government money used for their construction and maintenance, would not such a use of provincial revenue be an immense relief and benefit to the farmers, as well as to the city people who use our country highways for their pleasure or business? True, the cities, like Toronto, for instance, might have less Government tax expended within their limits, and some curtailment of unnecessary high salaries, and of unnecessary officials might be required, but the public interests would be subserved in a remarkable and practical way—by the provision of a liberal share of the provincial revenue to the construction and maintenance of country highways. Farmers should think this suggestion over and unite in demanding its practical consideration by the Government.

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### Creamery Department

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

#### Canadian Cream for the United States

The mistake on the part of the framers of the Payne tariff bill, as noted in these columns recently, is resulting in a nice little harvest for many dairy farmers, especially of Eastern Canada, who reside near the border. Had present conditions created by this slip existed from the commencement of the dairy season this year, it is probable that some astonishing figures would have confronted the statistician at the close of the year. The duty of five cents a pound, as originally intended, would have been absolutely prohibitive but as it is now under the provisions of the Payne tariff bill there is a duty of only five cents a gallon on Canadian cream going into the United States.

During the past two months, dairymen in the Brockville district and many throughout the Eastern Townships, have been shipping a large quantity of their cream across the border. American buyers, it is reported, are coming over and buying the cream from the farmers. The neighboring states need the cream this year for their milk experienced severe drought, and milk production has been at a minimum.

In order to appreciate just what this condition of things means to the producers concerned, it is only necessary to point out that it would need to sell butter at 32 cents a pound in order to make the same profit that they are making from selling their cream to the Americans,—the average price of butter at the present time is about 25 cents.

#### Creamery Starters, and How to Use Them\*

S. Hagadorn, Feanton, Mich.

We all know that if we should go out to build a building the first thing we look for is good material. It is very essential that we should have it. Just as essential as it is to have good material for building is it essential to have good material in order to be a successful buttermaker. We must produce the right kind of goods. If we have a good raw material and a good starter we will be successful. We have two kinds of starters. We have commercial starter and a natural starter. The natural starter I do not care to talk about simply because I believe it takes too much time to prepare it. Furthermore, a commercial creamer can be bought at a reasonable price and I believe it is always reliable.

#### PREPARING THE STARTERS

I will try to explain how I prepare my starters and how I use them. First it is very important that we should have the best milk we possibly can get. We don't know what kind of bacteria there is in that milk and the buttermaker is not in shape to determine that. We should, therefore try to select the best milk we can possibly get. The way I have been in the habit of selecting my milk is in this manner. I will not select from one herd, but from several, and I place that into one-quart cans—glass jars. The first step after I have selected the best milk is to sterilize it. I do this by pasteurizing it. I later put back my milk and pasteurize it for the mother starter. I then place it into a little cabinet and attach the steam for not less than one hour three days in succession. By doing that we are sure that we have killed all the

bacteria. I cool that milk down to a temperature of about 80 or 85 degrees and into that I put my culture. Now at 85 degrees we can be sure that it will be reasonably right in 24 hours or perhaps less, if we use the proper temperature. Temperature is one of the most important parts in making a starter. You will have to have some way of holding it at a temperature of from 80 to 85 degrees.

Another important thing is that the jars must be sterilized. You can easily sterilize these jars in this little cabinet and you are not at any extra expense.

#### NOT TO BE MEDDLED WITH

After you have your starter set for the first day at a temperature of 85 degrees and you have kept it there for 24 hours the starter is all right. I have seen many buttermakers examine the starter and test it and claim it is not so good. Remember that that is not so. Simply go along with your work. You have your first day started, so don't mind what you have in your can. That is nice and clean including your thermometer and put it in there thinking you are doing the right thing. The thermometer can be nicely sterilized in that same oven. Every day you take out a little but always so doing you will have a good supply of pure milk for mother starter. I continue it for several days. I always carry on four to six mother starters, because if I should happen to lose my big starter I would have something to fall back on. When you have more than one mother starter I have found it a good plan to set them with a little more in one bottle than in the other.

After you have taken your milk you are up against a proposition that is not easy to overcome. It requires a larger amount of milk, but nevertheless, we will have to do the best we can, but reasonably good. That, of course, we do not sterilize, but we pasteurize it at about 190 °... Some claim that 160 is enough, but my method is to use a temperature of 190 and if I have plenty of starter cans I always like to re-pasteurize. If not, I pasteurize just once. I use that from two to four per cent. and find that it will ripen my starter in a reasonable length of time. I find that I can ripen my starter 12 hours it is better than 18. I try to ripen as quick as possible. I consider a starter at its best when it contains about .7 of one per cent. acidity. I think every creamery ought to have an acid test, especially if the buttermaker is not a good judge of starters. A starter to be good should be always clean, and it should be nice and glossy.

#### USE A SKIM-MILK STARTER

Which is the better, a whole-milk or a skim-milk starter? For me, I will take the skim-milk starter, for the reason that a whole-milk starter will more about it. I know that a whole-milk starter will show up a little better, but will have always advocated a skim-milk starter.

In regard to the use of starters, there are different ways, of course. That would depend whether you use it for whole-milk or gathered cream. If you use it for gathered cream I would have a little more acid in it to try and see if I could cover up some of the bad flavors. Sometimes I put in the cream, and then again I put the cream in first, depending upon the material. I have tried to churn right after I added the starter and also to burn the next day but I have come to the conclusion that I prefer the cream to ripen about three or four hours. I don't know as it is so much to do with the flavor, but I can get a good body. After I have my butter of good flavor for the last couple of years washed my butter in starter. After my butter has reached the granular



## A FOOLISH QUESTION

SHALL IT BE A

# De Laval Cream Separator OR AN IMITATION?

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form I add from 10 to 20 gallons of starter made out of the skim-milk of 1,000 pounds of butter. I have had good results, by so doing. I have made experiments and found that this butter after it had been stored six months scored two points more than the other butter where the starter was put in before.

#### Inspecting New Zealand Butter

Complaints have been made in Great Britain in regard to excessive moisture in New Zealand butter. These have been taken seriously by the Government of that dominion says the weekly report of Trade and Commerce, and the New Zealand Commerce Commissioner, Mr. H. C. Cameron, has issued the following information regarding the steps which the New Zealand Government is taking to deal with the matter: "All butter sent in for export to Great Britain during the coming season will be subject to a rigid inspection by the officers of the dairy division of the Department of Agriculture stationed at each port of shipment. A large number of samples will be taken for analysis daily, and in all cases where the legal limit of moisture is exceeded, the offender will be prosecuted. In addition to this, the inspectors in butter making, who visit practically every creamery in the Dominion a number of times each season, will pay special attention to the question of moisture in butter. They will also look closely into the methods of manufacture adopted in regard to buttermaking, and endeavor to in-

duce the makers to retain not more than 12 per cent. to 13 per cent. of water in the finished article. These officers will carry a moisture testing view with them on their rounds. In the past season, the question of moisture in butter for the coming year will receive more than usual attention. Some extra men will be employed in checking the work of the dairy companies in this respect, in order to safeguard the interest of the purchasers of New Zealand butter, and to protect the industry generally."

The Canadian trade and the various authorities concerned will observe not all possible efforts are being made by their antipodean competitors to retain the enviable position which they have won in this market. The moral is obvious.

#### B. C. Creameries.—The Eden Bank

Creamery of British Columbia produced in 1908, 224,412 pounds of butter, which was sold at an average price of 29.4 cents. Net cash returns to the patrons, \$28,738.48. In 1902 this creamery turned out 118,880 pounds at the average price for that year being 25.14 cents, the patrons receiving \$27,130. It will be noticed that while the output increased in the seven years, nearly 100 per cent., the price received shows an advance of four cents a pound, making the net return to the farmers more than double what it was in the former year. In 1907, a store was started in connection with the creamery, which made a turnover in 1908, its second year of \$88,455.43. The Chilliwack creamery first opened in 1902, producing in that year 70,000 pounds of butter. In 1908 they turned out 264,903 pounds, giving a net return to patrons of \$65,881.50, making a total for the two creameries for last year of 459,315 pounds and a cash return to the farmers of \$123,646.91.

\*An address before the recent Butter Makers' Convention in Milwaukee.

## Cheese Department

Makers are invited to send contributions to this department, to ask questions on matters relating to cheesemaking, to suggest subjects for discussion. Address: Editors of The Farm and Dairy, Toronto, Ont.

## Speakers for Annual Meetings

The Department of Agriculture is arranging to send its instructors to annual meetings of factories and creameries. It is to be hoped that the producers, generally, will take advantage of this opportunity to get into closer touch with the excellent system of instruction which is now carried on by the Department in co-operation with the Dairywomen's Association. Much has been done to improve the sanitary conditions in factories as well as bettering the method of cooling and caring for milk upon the farm. The uniformity and quality of the Canadian cheese is the strongest evidence of the results following this work. We must, however, continue to improve if we are to maintain the place which we now hold in the best markets.

The proprietors or managers of factories and creameries should make application for assistance by writing direct to Mr. Frank Hens, London, Chief Dairy Instructor for Western Ontario, or Mr. G. G. Pugh, Kingston, Chief Dairy Instructor for Eastern Ontario.

Speakers will be sent upon the conditions indicated:

(a) That a well-heated and lighted hall or other suitable place be pro-

vided for the meeting, free of cost to the Department.

(b) That some responsible person connected with the factory concerned will send printed or written notice to every patron of the factory as well as to other farmers in the locality who would likely be interested in attending a meeting, describing the betterment of conditions surrounding the dairy trade. This notice should contain, place and hour of meeting, and such other particulars as will give a clear idea of the nature of the meeting.

(c) That a copy of the program be given to the Chief Instructor concerned; either G. G. Pugh, Dairy School Kingston, for Eastern Ontario; or Frank Hens, Bank of Toronto Chambers, London, for Western Ontario.

(d) That the speakers sent will be given one half to three quarters of an hour at least in which to address the meeting and direct the discussion along such lines as he considers of most profit.

(e) The following order of business for the meeting is suggested:

1. Reading of the minutes of the last annual meeting and the adoption of the same. 2. Address by a representative of the Department. 3. The report of the Factory for the past year. 4. Discussion of the annual Report of the Factory. 5. Additional business.

(f) That an official of the factory concerned will provide transportation, except by rail for the speaker, and also entertain him while at the place of meeting.—G. A. Putnam, Director of Dairy Instruction.

## Season of 1909 in Lindsay District

D. J. Cameron, Dairy Instructor, Campbellcroft

The cheese factory season just closed may be considered a fairly profitable one for both producer and manufacturer. While prices have been slightly lower, we had quite a considerable increase in the amount of cheese made, as usual in this section, we were late getting our factories started. Feed was scarce and the fresh grass slow in coming, so that it was nearly the last of May before our factories were going. However, we had a fair summer make and the milk supply held up well through the fall until about the middle of October, when cold wet weather set in and the milk supply fell off rapidly. I had one cheese factory less on my list than last season. Two factories, Cameron and Haliburton did not open this season, while Perrytown which was closed in 1908 was again in operation.

The quality of the milk supply is, slowly but steadily improving. The milk is being delivered at our factories in a cooler and sweeter condition than it has been heretofore. Yes, we are still getting too much over-ripe and tainted milk, and we hope to see less of it next season. I would advise every patron of a cheese factory to secure a reliable thermometer and make it a point to see that their night's milk was cooled to at least 65 degrees as quickly as possible after milking.

### IMPROVEMENTS NOTED

The general quality of our cheese has been improved. Some makers have done excellent work and have turned out fine cheese throughout the season. We hope that next season, this will be said of all.

During hot weather, we had our usual trouble with cheese becoming heated, showing the need of curing rooms in which the temperature can be controlled. Improvement has been made in regard to flavors. One factory discontinued the practice of returning the whey in the milk cans, with the result that a marked improvement was noticeable in the flavor of their cheese. A few factories pastur-

ized the whey, with very satisfactory results. I would like to see this practice made general where the whey is returned in the milk cans. The whey will then be kept sweet for a long time and the whey tanks and cans will be more easily cleaned besides lessening the danger of spreading undesirable flavors.

A few patrons still make the mistake of feeding turnips and rape. This practice should be condemned by all who are interested in cheese or butter manufacture.

### SIZES OF THE DISTRICT

We also have some poor factory buildings in which we hope to see considerable improvement made before starting next season. Factory managers should see that factory floors, drainage and their entire equipment is in a good state of repair in plenty of time before starting the season's work. To make dairying a success in this section, the production should be increased, more attention given to the selection and care of the dairy herd, more provision made for feeding cows when the pastures fail. I am glad to notice a few silos being built. I consider every dairy farm should have one. I would like to see cool curing rooms in all our factories, as I am satisfied it would mean a great gain to the producer. I firmly believe that, during the past five seasons, the factories in this section have lost enough, between the excessive shrinkage in the cheese, and claims paid for heated cheese, to equip each factory with a cool curing room.

Why not act now, and save this loss in future?

I wish to express my thanks for the courtesy I have been shown, and the assistance given me in the discharge of my duties, and I trust the season of 1910 will see greater improvement in this Lindsay section. Let every

dairymen do his best and aim to make this the Lanner section of Ontario.

## The Export Cheese Trade

A great change has come over the export cheese trade of Canada within the past few years, owing to the competition that has sprung up from the New Zealand market, which commences to be shipped to the English market at the end of our producing season, and tends to curtail the profits on the fall make of Canadian cheese in the English market. In former times, our shippers were content with small profits during the summer months, expecting to make better terms during the winter season when Canadian cheese had no competition outside of the English goods, and as these were in a separate class, Canadian cheese had the British market virtually to itself and Montreal exporters could depend upon a paying trade in the shipment of goods after the close of navigation.

The situation however has changed in recent years, as the New Zealand product comes into keener competition with Canadian every year, and shippers here find it more imperative to keep down the price of their fall cheese in order to secure a living profit on it, after carrying it over during the winter months. Advices from London, England state that the bulk of the New Zealand cheese has been contracted at 55s to 55s 6d c.i.f. It is thought that the market for Canadian cheese at present prices will remain about steady from this out.—Trade Bulletin.

Flavor is the quality in Lutter that brings the highest price. It should be aimed at first, last and all the time.—J. W. Newman, Victoria Co., Ont.

Write for our New Premium List.

## SIMPLE

Manufacturers of common cream separators put 40 to 60 disks, or even worse contrivances, into an old-style bowl, and call it simple and modern. The 52 disks shown on the sticks below are all from one such bowl. These contrivances must all be washed twice daily.

It's only plain inside Sharples Dairy Tubular bowls.

But Sharples Dairy Tubular bowls have nothing inside except the tubular bowl. And Tubular, out-hat and out-clasp contrivances are the worst—only simple, durable, and the best in the world.

All disks from one common bowl.

The manufacture of tubular is one of Canada's leading industries. Oldest separator concern in America. Sales exceed most, if not all, others combined. Tubular probably replaces more common separators each year than any maker of such machines sells.

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Steel Cheese Vats, Steel Card Sinks, Steel Why Tanks, Steel Why Loaders, Why Butter Tanks, Water Tanks, Steel Smoke Stacks, Galvanized Ventilators, Cheese Hops. Everything guaranteed

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## WINDSOR BUTTER SALT

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## The Farmer's Daughter

knows how important it is to use the best salt in butter making.

She knows that WINDSOR BUTTER SALT dissolves quickly and completely, and works in evenly.

She knows that WINDSOR BUTTER SALT makes the richest, creamiest butter—improves the flavor—helps to make the butter keep better.

At all the big fairs last year, practically all of the prize winners used

## Windsor Butter Salt

It is desirable to mention the name of this publication when writing to advertisers



READING is indeed to the mind, as food is to the body—the material of which its fibre is made.

—Lilian Whiting

## A Slip in Orthodoxy

YES, John, there's the church and I'm quite sure this is the house!"

A prim little woman in a gray gown turned into the gate and walked briskly, in spite of the warm August day, up the long brick walk to the parsonage. She was followed by a tall, erect man in a Prince Albert and silk hat who looked from side to side at the carefully mowed lawn and at the beds of pansies and magnonette near the house. She waited for him at the steps of the porch, and as they reached the door he looked down at her and smiled, while she carefully arranged her gray gown and straightened her neat little straw bonnet before pulling the bell.

"It looks just as it used to, I do declare!" She glanced from the big brick church on one side to the corn fields on the other, which stretched away in the distance, and then up to the man who was still looking at her, and her eyes were strangely young in spite of the wrinkles about them, and her cheeks were slightly flushed.

"Are you quite sure there is time, John, for me to be married by the minister?" She pulled the bell again. Then turning to him, she carefully brushed a speck from his correct black coat with her lace-edged handkerchief.

"Plenty of time, my dear," he answered in his deep voice, and he smiled again as the pink in her cheeks grew deeper and her eyes lowered at the "my dear." "I'd be willing to stand here all afternoon and look at you." He leaned against a porch pillar and took off his hat, brushing the thick iron-gray hair from his forehead. "Only if we can't get this minister, we must look up the justice. I'm going to marry you to-day, Methodist parson or not." He stretched up, put on his hat and reached for the bell himself.

"They must be home." There was an anxious tone in the little lady's voice. "It would be dreadful not to be married by a Methodist minister, when I've been a Methodist for almost forty-five years. There, I hear some one." John, John," she whispered in a flutter, "you sure you've got the ring?"

"Sure's shooting, Amelia. Don't you worry, I say," hurriedly, "you are talking. You know the ways of parsons better than I do—haven't you near one for twenty-five years—no, since I went with you way back in '63?"

"The door was opened by a rosy-cheeked, panting maid, her clean white apron tied over one hip.

"Is this the parsonage?" The little lady's voice trembled a bit.

"Sure," breathed the maid, holding up the door.

"Is this the minister in?" asked the visitor, stepping over the sill. The

gentleman followed, his silk hat in his hand.

"No, mum, yes'tim, no—that is, Mrs. Neal for you. Just step into the stiddy, mum. I'll call the missus," and the maid vanished down the hall, leaving the couple to look at each other, and to hear in a stage whisper: "Come quick, mum. They wants the minister, I thinks it's a weddin' frae the looks of 'em."

And when Mrs. Neal, a smiling young woman with fair hair and blue eyes came cordially to greet them she found a very blushing, "awfully little woman," as she told her husband afterwards, "and a big man with eyes full of twinkles," standing

### Splendid and Helpful

The Special Household Magazine issue of Farm and Dairy, is so all thought splendid and very helpful. Farm and Dairy is to be congratulated on its production.—Miss Eunice Watts, Kings, Co., N.S.

close together in the hall. She took step into the study saying she had sent the maid for her husband. He was at work in the garden. It was such a fine day for wedding he couldn't resist it, she told them. Wouldn't they be seated? Hadn't it been a fine summer?—she continued as they both found chairs on opposite sides of the room—so cool and pleasant, Mr. Neal had thought of taking them to the seaside for August; but the baby had better keep him home. He was asleep now. But it had been so cool they hadn't minded. Did the callers she hadn't seen them, but then she and Mr. Neal had not lived there so very long, and didn't know every one in Pleasant Valley? It was a good deal like Minnesota so much.

The little woman was becoming less nervous, and the big man watched her as she explained how she had lived all her life in Norris Falls, but she had visited in Pleasant Valley twenty-two years ago, and had always hoped to come back some time. The place didn't seem to have changed much in that time. Here her face went on a trip. Here they were going on a trip. Here they were became pink again and she looked quickly at the man. They were going to Seattle and then to San Francisco, and then to Denver. The door slammed, and the minister entered the room. His keen eyes looked first at the woman and then at the man and lastly at his wife, who rose and said to her visitors, "My husband, Mr. Neal."

Mr. Neal shook hands with each

of them cordially. "I'm sorry to have been so long," he explained, "but I was out in the garden when Maggie called me and was anything but presentable." It's a fine day for gardening." He seated himself and looked from one to the other as he talked.

The big man admitted the fineness of the day; thought it a trifle warm, wiped his face with his handkerchief and, after glancing several times at the little woman across the room, whose eyes were fixed on him, he straightened his shoulders, looked the minister fully in the face and said: "We called on you this afternoon because we wish to be married. Miss Chesna is from Norris Falls and I am from Denver, and we came here to be married because we preferred a quiet wedding and didn't care to have every one in Norris Falls talking about it till we were well away from there."

Mr. Neal nodded gravely. "I have the license here," the man tapped his breast pocket, "and we came to you because Amelia would be married by a minister of her own denomination, even if she wouldn't be married in her own town." He smiled at the gray-gowned figure on the couch.

The minister looked at his wife and smiled and then turned again to the man. "Have either of you been married before?" You see there are some questions I must ask," he explained as they both laughed, the man throwing back his head and filling the room with his merriment, and the little lady's gaily rippling in spite of her nervousness.

"Well, I haven't," chuckled the man.

"How about you, Amelia?" Then with dignity "You let me talk. We aren't either of us married," she explained to the minister and his wife. "We—we expected to be married some time ago—twenty-five years ago to-day—but it was postponed." She said this simply and with a high air, her head in the little straw bonnet.

"And if we don't hurry a bit we won't get that five-thirty train. It's lost three already."

The minister looked at his wife. Her eyes were strangely soft, and she smiled at him. "Perhaps Miss Chesna

### Admires Farm and Dairy

I like Farm and Dairy very much. Especially do I admire its stand in putting in a few columns each week of a religious nature. Farm and Dairy is, in my opinion, the only agricultural newspaper which has that upbuilding tendency.—Geo. E. Ford, Dunham Co., Que.

would like to come into my room and take off her gloves," she said, and led the way from the study. She stopped to tell the maid to make some lemonade and get out some cookies and fruit-cake.

When they returned to the study some moments later, they found the two men discussing the merits of the State of Colorado, and of Denver in particular, quite as if they had known each other for years.

John got to his feet as they came into the room. The little lady had taken off her bonnet and had combed up the soft gray hair on her forehead, and in the lace at the neck of the gray dress Mrs. Neal had pinned a pink rose. John looked at Miss Amelia so long that she hurriedly selected a red rose from the vase and manted and pinned it to her coat.

Mrs. Neal bustled about, lowering and raising the shades, and bringing great bowls of nasturtiums and sweet peas and scarlet ranunculus from the other rooms, and as a last touch, she sent Mr. Neal upstairs for a white fur rug to put in front of the bow window where the bride and groom were to stand.

It took Miss Amelia a long time to fasten the flower in the groom's button hole, and she was only when the little maid had been called in as a witness that the rose was pinned quite to the bride's satisfaction.

Then the groom brought out the license and placed it on the table, and with it a little red velvet bag. "The ring," he explained, looking smilingly down at the gray head which barely reached his shoulder.

"Oh, you shan't have the ring service?" The minister opened the box and took out the little gold band, handing it to the groom, whose fingers were not very steady just then.

"I have your names correctly," the minister asked, "Amelia Chesna and the John Wetherby? That's right, I think. Now, if you will just stand together on the rug, I'll begin."

The young minister was very solemn as he read the marriage service, and his wife thought she never had heard him give it more impressively, not even at the big church weddings they had ever had. The minister was eager for the responses. Her apron was still on sideways and she had addressed a cap which perched only over one bride and groom were far beyond anything.

His voice trembled a bit on the "I will," and hers was led the ring between them, making him drop the little maid gasp and put out one hand involuntarily.

The groom held the bride's hand during the prayer, and after the "Amen" he kissed her and she kissed him, and the minister congratulated them, and the little maid hurried from her apron wiping her eyes.

Then the minister produced a little white-and-gold wedding book with forging present on the cover—their wedding signed their names and the little maid Angelina Casey" in a large round hand, making a dash down the page. After this they had the lemonade and the fruit cake and cookies, arranged on the best china by Marguerite Anon during the conversation, the bride and groom content to sit silently together on the sofa.

But there was that five-thirty train to make, and their quiet aftermath could not last forever. Mrs. Wetherby went to Mrs. Neal's room to put on her bonnet and gloves, leaving John and the minister to settle the fee.

"You've been so good to us, my dear!" the bride said softly, pinning her corset—just as if we'd always known coming right up here. I insisted on remembering the place, even when you when I was visiting here long ago," toward the brick church and drew on her gloves, while Mrs. Neal sat on either a large bunch of roses and pink-and-white sweet peas for the bride to carry away.

"What's become of the vine on the church?" Mrs. Wetherby asked suddenly.

"The vine?" queried Mrs. Neal. "Why, yes, when we were twenty-two years ago, the church was twenty-two covered with English ivy, although it's gone. Queer! I didn't notice it when I was coming down the street. Did it die? She asked leaning toward the window.

"There never has been a vine, not since we've been here. Are you sure wasn't the old frame church you built some fourteen or fifteen years, I believe."

"No, it was the brick church, twenty-two years ago!" Mrs. Wetherby spoke with conviction. She stood up and looked carefully from the window. Then quickly turning, she asked,



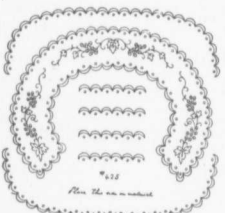
**Embroidery Designs**

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



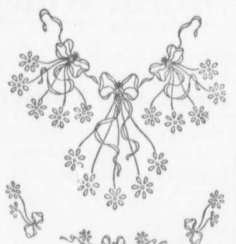
405 Design for Embroidered Low Neck Night-Gown.

Five portions are given, front piece, back piece for scalloped edge and two sleeves for the gown when made without an opening. A strip of scallops to be used when the gown is made with an opening. The flowers, leaves and dots are designed to be worked in solid or satin embroidery stitch and the slits for the ribbon tape are designed for eyelet work.



425 Design for Embroidering the Yoke and Sleeves of a Low Neck Negligee or Night-Gown.

The scalloped edges are designed to be padded and buttonholed, the flowers and stems to be worked in outline stitch, the bunches of berries to be of solid embroidery, and the dots to be worked solidly or as eyelets.



431 Design for Embroidering a Blouse or Shirt Waist.

Patterns for stamping the front, a collar and two cuffs are given. The bow-knots are designed to be worked in solid embroidery, the stems in outline stitch and the flowers either solidly or as eyelets.

**A Trip Around the World**

Note our advertisement on another page regarding a set of 50 finely illustrated post cards, showing a complete trip around the world. You can easily secure a set of these cards with little trouble. (See page 7.)

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

**OUR HOME CLUB**

**Woman Suffrage**

This is a question much discussed to-day, especially in the old land. There, an enormous amount of the national wealth has been and is produced by women workers, yet they are formed the opinion that they will be unjustly affected, but have no way of giving expression to their opinions. They desire the vote to protect their labor, which may be laudable. Whether their position in the labor market might not be immediately the better for the vote is an open question, but there is no doubt that their improved status would tell in the long run.

Let me quote from two authorities, one favorable and the other unfavorable to woman suffrage, who have lately made these statements. Miss Hurlbut, in an address before the Women's Club, in Montreal, a few days ago, said: "Woman has special qualities of her own to contribute to progress, and representative government without her is not representative of the state. Women ask for political rights to make themselves more effective members of the human family." This is from a woman's standpoint. Now hear what Cardinal Gibbons, who in a letter to the National League for the Civic Education of Women, an anti-suffragette organization, says: "I beg to assure you that I am most certainly in sympathy with the aim of your league, and I approve most strongly the stand it has taken in opposing woman's suffrage, which, if realized, would be the death blow of domestic life and happiness." This is a sweeping statement and coming from one of strong convictions should have weight. I will keep my own opinions until next time. "Father."

Try a little baking soda and hot water when cleaning kitchen utensils.

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

**Water Supply**

It is not only necessary to get a good supply of water to the house but it is necessary to have a drain to carry off all waste water from the kitchen sink and bath room.

Soft water for washing will be obtained from the roof of the dwelling and can be stored in a tank in the upper portion of the house. Care must be taken that the foundation and studding is strong enough to stand the weight of a large tank full of water. The weight can be estimated by allowing about 10 1/2 lbs. to the cubic foot of water.

Where an overhead tank cannot be used a cistern made of good Portland cement placed in the cellar or outside with a pump at the kitchen sink, will give good satisfaction.

When the spring water is stored in a tank higher than the kitchen range it is easy to have an automatic supply of hot water suitable for all purposes on tap. If the kitchen table is set near the sink where there are taps for hot and cold water it will save many steps and greatly reduce the labor in the household which is of great importance in these days when domestic help is scarce and hard to get.

**Saving Labor on Wash Day**

The following simple arrangement has proved to be a great convenience in our house. A pipe has been laid under the wood house into our wash, the outside end of the pipe emptying into a ditch near by. A pump with a funnel shaped bottom made to fit this pipe completes the convenience. On wash day when it is desired to empty the washing machine, we simply plug the plug and let the water run into this pipe through which and its connections the water runs to the afore-mentioned ditch and thus saves all labor of carrying it out in pails as is so commonly done.

We have a cistern pump in this wood house and also the spring water on tap. With these conveniences our wood house proves to be a very handy place in which to wash.—Mrs. J. S. Williams, Northumberland Co.

**The highest medical authority on foods,**

**Sir James Crichton Browne, LL.D.—F.R.S. of London,**

gives the best reasons for eating more

**Quaker Oats**

In an article published in the Youth's Companion of September 23rd, 1909, Dr. Browne, the great medical authority on foods, says, about brain and muscle building—

"There is one kind of food that seems to me of marked value as a food to the brain and to the whole body throughout childhood and adolescence (youth), and that is oatmeal.

"Oats are the most nutritious of all the cereals, being richer in fats, organic phosphorus and lecithins."

He says oatmeal is gaining ground with the well-to-do of Great Britain. He speaks of it as the mainstay of the Scottish laborer's diet and says it produces a big-boned, well-developed, mentally energetic race.

His experiments prove that good oatmeal such as Quaker Oats not only furnishes the best food for the human being, but eating it strengthens and enlarges the thyroid gland—this gland is intimately connected with the nourishing processes of the body.

In conclusion he says— "It seems probable therefore that the bulk and brawniness of the Northerners (meaning the Scotch) has been in some measure due to the stimulation of the thyroid gland by oatmeal porridge in childhood."

The Scotch eat Quaker Oats because it is the best of all oat-meals.

It is desirable to mention the name of this publication when writing to advertisers

**The Sewing Room**

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

**Morning Jacket with Poplum 6474**

Such a simple morning jacket as this is always in demand and becoming as well as comfortable. It can be worn with a skirt to match or an odd one as may be liked.

Material required for medium size is 3 1/2 yds 24, 3 1/2 yds 32 or 2 1/2 yds 44 in width with 9 1/2 yds of banding.

The pattern is cut for 34, 36, 38, 40 and 44 in bust and will be mailed on receipt of 10 cts.

**Men's Drawers 6463**

Well fitting drawers are essential to masculine comfort, and those that at home are apt to be the best of their sort. These illustrations can be made long or in knee length, and can be regulated at the back by means of a strap or lacing as liked.

When the material illustrated but muslin and all materials used for men's underwear are appropriate.

Material required for medium size is 3 yds 27 or 36 in wide for long drawers; 2 1/2 yds 27 or 36 in wide for knee length drawers.

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

**Misses' Long Coat 6469**

The coat with the plaids makes a favorite feature of the season and is especially graceful and attractive. This one is simple and stylish at the same time chic and smart; and can be made from any seasonable material.

Material required for the 16 yr size is 3 1/2 yds 27, 3 1/2 yds 44 or 4 yds 52 in wide for full length and 3 1/2 yds 27, 4 yds 44 or 3 1/2 yds 52 in wide for three-quarter length.

The pattern is cut for girls of 14, 16, 18 yrs, and will be mailed on receipt of 10 cts.

**Boys' Norfolk Suit 6475**

The Norfolk suit is always becoming to boys and this one includes the long pointed revers that are fashionable just now. Serge, homespun and all materials that are used for boys' suits are appropriate. The belt keeps the jacket in place.

Material required for medium size (12 yrs) is 5 1/2 yds 27, 5 1/2 yds 44 or 5 1/2 yds 52 in wide.

The pattern is cut for boys of 10, 12 and 14 yrs, and will be mailed on receipt of 10 cts.

Have you looked into our Music Folio Premium offer? It is a good one.



## HOLSTEIN-FRIESIAN NEWS

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

## ADDITIONAL HOLSTEIN-FRIESIAN COWS ACCEPTED IN THE RECORD OF PERFORMANCE

Lady Elgin A., (4912), mature class, 11,477.2 lbs. milk and 442,672 lbs. fat in 365 days; average per cent. of fat, 3.85. Owned by F. Leeson, Aylmer, Ont.  
Edna Wallace (3569), mature class, 16, 367.9 lbs. milk and 542,644 lbs. fat in 365 days; average per cent. of fat, 3.31. Owned by F. Leeson, Aylmer, Ont.

Lady Elgin (3781), two year class, 9,679.3 lbs. of milk and 315.81 the fat in 333 days; average per cent. of fat, 3.26. Owned by F. Leeson, Aylmer, Ont.

Eveline De Kol, (9110), two year class, 15,146 lbs. milk and 419,109 lbs. fat in 365 days; average per cent. of fat 3.18. Owned by F. Leeson, Aylmer, Ont.

Seymour Jessie, (7397), two year class, 9,077.5 lbs. milk and 296,176 lbs. fat in 365 days; average per cent. of fat 3.26. Owned by W. E. Hermiton, Brickley, Ont.—G. W. Clemons, Secretary.

## RECORD OF MERIT

## Eight Months after Calving

Queen Butter Barones (7653) at 2 yrs. 30 days age; 273 days after calving; 7,24 lbs. fat, equivalent to 3,17 lbs. butter; 158.5 lbs. milk. Owned by H. H. Haler, Springfield, Ont.

Flora Wayne Sarcastic (6316) at 3 yrs. 10 mos. and 6 days of age; 243 days after calving; 10.02 lbs. fat, equivalent to 11.69 lbs. butter; 314.96 lbs. milk. Owned by David Coughlin, Farmouth Centre, Ont.—G. W. Clemons, Secretary.

## LARGEST RECORD COW IN CANADA

Ed. Farm and Dairy has felt long probably would be of interest to all lovers of the black and white cow, to know a record of the kindling of my great cow Nannet Topsy Clothide, which has the remarkable record of 302.3 lbs. of butter in 77 days, and 116.01 lbs. of butter in 30 days, from 273 to 302 days of age, averaged 3.98 per cent. of fat. She is the largest record cow in Canada, either for 7 or 8 years. In looking over the breeding of this great cow you will find she is backed by the best blood lines of the breed. Her sire in his extended pedigree shows the following: Pieterje 2nd, the famous old cow son of Pieterje 2nd, the famous old cow son which gave 34,219 lbs. of milk in one year; he also traces to Moore Hartog 4th, the grand sire of Paul Bees; De Kol, sire of over 90 A. R. O. daughters. The granddam of King Hartog Clothide was Clothide 2nd; she gave 25,022 lbs. of milk in one year, she being a daughter of Clothide (imp.) she having a yearly record of 25,022 lbs. of milk. Thus I find it is through the two great sires, Pieterje 2nd's Holland King and Moore Hartog 4th, also the cow Clothide (imp.) that he derives his name, King of the Clothide.

On the dam's side is the greatest bull of the breed, Milas Pieterje Netherland. Through his daughters, we get Hengerveld De Kol, sire of 42 A. R. O. daughters. Pieterje Hengerveld's Count De Kol, sire of over 80 A. R. O. daughters, and several other great sires. He is also grand sire of Segis Inka Butter, 23.04, the granddam of King Segis.

In tracing out the largest record cow of the breed I find nearly all of them trace to this great old sire, Milas Pieterje Netherland. Mr. G. W. Clemons of St. George's, the secretary of the Holstein-Friesian Association, visited my herd in Farm and Dairy and secured a son of Nannet Topsy Clothide Butter, 19.85, and sired by Brightest Canary, which I claim is the greatest line bred bull in Canada today. The readers of Farm and Dairy are familiar with the breeding of this great bull; it is a great source of pleasure to me, as well as a profit, to raise and sell stock of my herd bred from the same line. The Nannet Topsy Clothide, one with an A. R. O. record of 2514 in 77 days, and others that will be heard from in the near future—Gordon H. Manhard, Leeds, Ont.

Our "Pig Offer" is a dandy. Have you taken advantage of it yet? Read it elsewhere in this issue.

## BULL TRANSFERS FOR SEPTEMBER

The publication of these transfers is paid for by the Holstein-Friesian Breeders' Association:

Albert De Kol Baron, Hubert Gladu, Jr., to George Area, Marielvie, Que.  
Albert De Kol Baron, Hubert Gladu, Jr., to Adige Brault, S. Michéle Rouge, Mont. Que.  
Ager, Garfield, A. Kernehan to Benj. Beach, Oxford Mills, Ont.  
Alta A. B. D. George to A. A. Grigori, Halifax, N.S.  
Amos H., E. D. Miller to Amos H. Baker, Picton, Ont.  
Antonio Butter Boy Beets, Adelaide Fort, to L. Laverdiere, Beaumont, Que.

Gibson Boy, Wm. J. Gibson to Roy Jones Hazelbrook, P. E. I.  
Goldard, Edward Hughes to Arthur Pearson, Holbrook, Ont.  
Golden Fern, Edward Hughes to Wm. Pearson, Holbrook, Ont.  
Hal De Kol Posch, Wm. E. Mason to George Cowan, Tillsonburg, Ont.  
Henry Boy De Kol, Henry Gladu, Jr., to Napoleon Roy, Marielvie, Que.  
John Leeman, Ont.  
Homer Posch De Kol, W. H. Glow to John Leeman, Ont.  
Honest Lad, Edgar R. Hearts to McKinley Bros., North River, P. E. I.  
Inka Wynne Posch Lad, C. Slavin to Wesley Haycock, Highfield, Ont.

Keyes Pieterje 2nd, Ernest A. Hubba to Dr. H. H. Post, Wellington, Ont.  
Korndyke Butter Boy T., A. D. Foster to W. A. Johnson, Napan, Ont.  
Lad Mercena Boy, John C. Brown to John S. Abbe, Thorold, Ont.  
Lassie's Abbeker, T. L. Dunkin to F. Hilliker, Burgessville, Ont.  
Lassie's Abbeker, T. L. Dunkin to J. R. Carmichael, Ayr, Ont.  
Leopold Paul De Kol, Otto Sulbring to Adria Oliver, Maitland, Ont.  
Lilli Sweet's Abbeker, T. L. Dunkin to John S. Abbe, Thorold, Ont.  
Loch Winnock, Lord, T. N. Howe to Allan J. Lindsay, Loch Winnock, Ont.  
Lord George's Friesian, G. M. Howe to H. E. George, Crampton, Ont.  
Lone Stars De Kol Prince, J. H. Caldwell to Patrick Melanbun, Vanocia, Que.  
Lord Corneilus Tensen, James S. Nichols to Lord Corneilus, Norwich, Ont.  
Lord Corneilus Tensen, A. E. Hulet to Trethewey Model Farm, Weston, Ont.  
Lord George's Friesian, G. M. Howe to Suen Davey, Holford, Ont.  
Lord Wick, Luther Denis to George Riddick, Morrisburg, Ont.  
Major Gerrit de Geneval, John A. Hughes to James A. Steves, Salisbury, N. S.

Major of Campbelltown, H. J. Kelly to Wm. Canham, Derham Centre, Ont.  
Mechilde Johanna Lad 2nd, Baron de Champlouis to G. C. Philbrick, Danville, Que.  
Milbrook Teakie Posch, P. A. Curran to Arthur Gladu, Hurlington, Que.  
Mina Sir Posch, E. D. George to George Northcott, Solina, Ont.  
Modest Lady Sir Wynne, Thomas Laycock to L. D. Bricker, Didsbury, Alta.  
Orchard Grove Sir Wynne, Wm. Palliet to Joseph Walker, Ethelton, Sask.  
Orchard Grove Sir Wynne, George W. Palliet to Jonathan Elmer, Woodbridge, Ont.

Paul Pieterje Pieterje, A. C. Hallman to Robert Hirdock, Havelock, Ont.  
Pieterje Lad, A. S. Blackwood to Can. Pacific Irrigation Co., Calgary, Alta.  
Peggie De Kol Butter Boy and W. J. Tregillus to Can. Pac. Irrigation Co., Calgary, Alta.  
Posch Corneilus, E. D. George to G. G. Gimby, Cartwright, Ont.  
Prince of Middlesex, David Smith to Herby Matthews, Putnam, Ont.  
Princess of Robin, George B. Gimby to Joseph Walker, Ethelton, Sask.  
Prince Akkrum Burke, W. L. Mullins to G. C. McRimmond, Alta, Alta.  
Prince of J. G. Cochrane, East Oxford, Ont.  
Prince Butta, Albert, Henry Crowder to John Beacham, Putnam, Ont.  
Prince De Kol Gem, Wm. Burnie to Wm. C. Smith, Donmill, Ont.  
Prince De Kol Inka, E. W. Day to Geo. Stokoe, Daysland, Alta.  
Prince Isabella, H. Bollert to W. J. Quick, Harrow, Ont.  
Prince Netherland, H. Palamity, T. B. Carlaw to Robert Palmaster, Morganston, Ont.

(Continued on page 17)

## The Junior Sir at the Head of Riverside Herd, Owned by J. W. Richardson, Caledonia, Ont.

Printed by De Kol Posch 3027, illustrated above, has for his dam Lady Aengle De Kol, winner of sweepstakes, 1908, dairy test, Guolph. She also has to her credit milk, 88 lbs. 13 oz. She is sired by Victor De Kol Pieterje, for five years at the head of the Riverside herd, and which bull is also the sire of the cow making the largest record in Government Record of Performances in Canada.

Archdale Fred De Kol, John B. Barton to B. M. Blackadar, Hecatanoga, N. S.  
Beatty Boy, J. M. Davis to Alfred Kilborn, Plum Hollow, Ont.  
Della Boy, Luther Chenette to Hackett Cherry, Russell, Ont.  
Blue Jay, Arthur Chenette to John Gervais, St. Thomas d'Aquin, Que.  
Bonnie Tensen's De Kol, E. F. Hicks to C. E. Trebilcock, The Grove, Ont.  
Boutje Pieterje O. C. Joseph Carr to William Kerr, Bronson, Ont.  
Brammer's Triple Lad, John Clarkson to W. H. McCauley, Streetsville, Ont.  
Calamity Canary Prince 3rd, Fred S. Ferguson to Edmund Patey, Harrowsmith, Ont.

Garrick Gipsy Lad, John A. Haines to George Scott, Carleton Place, Ont.  
Clan William Prince, John Tannahill to George G. Wilson, William, Man.  
Clara's Prince Posch, A. S. Blackwood to Can. Pac. Irrigation Colonization Co., Calgary, Alta.  
Cleveland Boy, Clement Wilcocks to Ernest Edgar Healy, Richmond, Que.  
Colonial Sherwood, Fred Carr to Watson & Brodie, Fingal, Ont.  
Columbia Sampson, D. M. Hamm to George Posch Hengerveld, A. C. Hallman to W. H. Frew, Trenton, Ont.  
Count Pieterje, A. S. Blackwood to Can. Pac. Irrigation Co., Calgary, Alta.  
Count Wynne Mercedes Jay, T. W. McQueen to S. W. Carson, West Lorne, Ont.  
Cressen's Twin, Austin to W. B. Smith, Lansdowne, Ont.

Cubana Ione De Kol, H. P. Shuttleworth to Peters Healy, Richmond, Ont.  
Daisy Testa, Johannes, Fred Carr to Logan to J. W. Richardson, Caledonia, Ont.  
Dan Artis Posch, McEhee Bros., to Fred L. Gorden, Beaverville, Ont.  
De Kol Model King, W. J. Tregillus to D. C. Johnston, Springfield, Ont.  
De Kol Wayne Paul, S. O. Carlyle to D. C. Johnston, Beaverville, Ont.  
Dutchland De Kol, W. J. Gero to E. Rose, Milford, Ont.

Dunlop, John Tannahill to Francis Murphy, New Brin, Que.  
Elopes Houwrie, Robert Symington to G. H. H. Friesian, Ayr, Ont.  
Emerald Netherland Posch, Wm. E. Mason to Robert Shepherd, Acaia, Ont.  
Fairview, John Tannahill, Honey to William Hopkins, Brickley, Ont.  
Farrow, P. Bonin to Oliver Prudhomme, Ste. Eustache, P. E. I.  
Fraserville Chief, Peter Drummond to Ben Scabrook, Fraserville, Ont.  
Gara Abbeker Lad, T. L. Dunkin to A. E. Hulet, Norwich, Ont.  
George Mercedes, Byron Stephens to George Fries, Bradshaw, Ont.  
Glen De Kol, Hiram Reagh to Thomas Fortin, Courland, Ont.

Ina Tricom 2nd's Abbeker, T. L. Dunkin to D. B. Colton, New Durham, Ont.  
Inka Posch Prince, John Tannahill to Arthur Lamb, Kensington, Ont.  
Inka Jewell's Cornucopia, J. A. Casley to James Freeman, Havelock, Ont.  
Inka Sylvia 4th's Posch, James J. Rieley to Julien Charlebois, Vaudreuil, Que.  
Irma King Pieterje De Kol, Daniel E. Shants to A. C. Hallman, Breslau, Ont.  
Jacob Rooker Posch, Fred C. Clark, to James H. Donald, Malpique, P. E. I.  
Jim Posch De Kol, Thomas E. Hodgson to Samuel Davey, Belton, Ont.

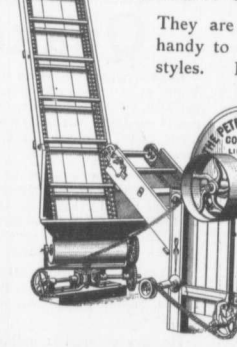
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OUR FARMERS' CLUB

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QUEBEC

COMPTON CO., QUE.

COMPTON CENTRE.—It is the proposal of the Canadian Government to expend \$30,000,000 on the establishment of a navy for Canada. While it may be all right for us not to be greatly in favour of it. It seems to me that the money might be more profitably expended elsewhere. Then, again, \$30,000,000 would be only the first expense—it would cost an enormous sum yearly to maintain a navy such as ours would be. At any rate the people of Canada—It. C. have the right to decide whether this move should be made. Perhaps we need the navy, but I should like to see it voted upon by the people of Canada—H. C.

ONTARIO

HASTINGS CO., ONT.

THE RIDGE.—Everything is harvested. Turnips are a good crop; so are potatoes. On the farm of Colin McGregor there are 50 bags of potatoes dug from one bag of seed planted. Corn is a grand crop. Some of the farmers are talking of putting up silos. In the summer, which ought to be a good thing. Oats are selling at 42c; hay, \$16 a ton and it is not very plentiful that; it is very apt to reach \$20 before spring. B. C.

SIDNEY CROSSING.—Although we have had very dry weather considerable plowing has been done. Everything is now gathered and stacked. Hens are being kept on corn; next week they are to be stored away. There will be plenty of feed this winter; abundance of everything for man and beast. Lattie potatoes are an excellent crop, and prices ranged from 30c to 60c. Timothy hay runs from \$12 to \$15 a ton straw from \$5 to \$6 by the load; dressed pot, 19c a cwt. Ghodog pig sell at 8c; other grades a few cents less. Chickens and hens are scarce; 12c a pair, 10c a pair, 8c a pair, 5c a pair; butchers, 30c prints and rolls, eggs 22c a doz; butter, 30c prints and rolls, eggs 22c a doz; chickens from 40c to \$1.15, eggs 22c a doz; 25c for dairy pots and tubs. White and ash were plentiful (closed season) now it is 30c a lb, and herrings, 30c a dozen. J. K.

PETERBORO CO., ONT.

GALWAY.—I notice that several correspondents report that the weather has been dry for plowing; it is quite the reverse here. Some farmers whose land is flat and low have scarcely any plowing done at all on account of the continued drench. The rest of the crop is all taken up, and is quite plentiful at \$1.15 a bushel. There is a fairly good crop but turnips are only medium, and in some cases quite small. There is a fair amount of water, but it is probably the best crop of all the cereals. Cattle are still making their living out of hay, excepting those, which are fed corn by parties who are growing it. It is surprising how few farmers have adopted man raising as a branch of farming—C. C.

BRANT CO., ONT.

FALKLAND.—Farm work is well forward, except in a few cases. Fall plowing will be done in a day, with a little more open weather. Although there have been several dry rains recently yet the soil is not hard. Mangels are a good crop; turnips are plentiful, but, as a rule, are under size. The dry weather during August and September kept their effect. The wheat market recovered from its fall, and is now recovering from its effect. \$1.02. Hogs are worth \$7.75 live weight, 20c respectively. Butter is scarce at 53c a pound, and middlings at 52c. Potatoes are quite plentiful at a bag. Milk cows are in good demand. Good butcher cattle are at farm sales. Good butcher cattle are at \$5—L. T.

MIDDLESEX CO., ONT.

BYRON.—Crops were mostly good, especially fall wheat. The writer saw at Mr. Foster's farm the largest straw stack he has seen so far this fall. The land is being intensively tilled, and is producing crops of potatoes, corn, cabbage, tomatoes, and such as are common abundance. The writer was given some abundance by a Byronic, who said that for the first time his ancestors and he were now himself had yearly raised the crop from the same grove. These nuts are marketed, and many owners receive good

returns from their chestnut groves and forests. Other nut-bear trees are also to be seen, such as hickory, walnut and hazel nuts.—J. E. O.

ELGIN CO., ONT.

UNION.—James Parish has this season built the most up-to-date farm in the writer has seen as yet. The outside wall is covered entirely with metal, off which all growth elements of nature will quickly fly. Underneath are commodious stables for housing the herds and flocks. Around here are yearly grown splendid crops of cauliflower, and other vegetables large, clean and white, while the latter is crisp and creamy in color, with a delicious taste.—E. O.

WELLINGTON CO., ONT.

MOUNT FOREST.—Rape is becoming very popular as a late fall pasture. It seems to be a money maker. It provides an abundance of pasture of the most nutritious kind, when all other pastures fail. It seems to flourish in the cold wet weather in the fall, and during all the growing season it seems to be very fecund in subduing weeds, especially quack grass and perennial sow thistle. Plowing has been done all this fall, until recently, on account of insufficient rainfall; however, the soil has become in good condition for the plow—C. N.

LAMBTON CO., ONT.

WYOMING.—The wheat crop has made very little growth excepting some small pieces that were sown early. We have had a dry cold fall, pastures are very small. Butchers have a hard time getting fall fat cattle. They are paying about 6 1/2c a lb. for common butcher cattle and expect to have to pay more soon. This is due to a dull and has been for some time. Hay is selling for \$15 a ton; wheat 9c in Petrolia; eggs 25c a doz.—J. N.

BRUCE CO., ONT.

CLUNY.—The apple harvest is now about over; it was an average crop, especially the winter varieties. They are worth less than they were last year, advanced as it has been. There are 300 acres of ground in fine condition. Stock is being put into winter quarters in the condition.—H. C.

MUSKOKA DISTRICT, ONT.

GRAVENHURST.—Roots are all in. They were a very good crop. Grain turned out well. Pasture during the latter part of the season was excellent in good condition. Plowing is the order of the day, excepting with those who have too much of the kind in them; they are after the deer.—B. L.

GRANGE NOTES

ANNUAL MEETING OF DOMINION GRANGE

The Dominion Grange of Canada will hold its 35th annual meeting at the Zion Congregational Church, corner of Elizabeth and College streets, Toronto, beginning on Wednesday, November 24th. The first session, Wednesday forenoon, will be devoted with business strictly relating to the Grange and the 35th, will be open to all agriculturists, who are invited to attend and to the public, who will be the various subjects, and who will be on an opportunity of becoming members of the Grange.

A WARNING AGAINST THE NAVY

Editor Farm and Dairy.—It appears, if I may be permitted to say anything, that at the approaching session of the Dominion Parliament, a bill will be passed authorizing the expenditure of some \$30,000,000 for a Canadian navy. It appears probable that the bill will be passed without serious opposition in the House, as the official (and salaried) leader of the Opposition has declared himself in accord with the Government in this matter. And thus a most momentous step in our history will have been taken—a step which will turn our country into a war power, however petty, which will impose upon us the burden of taxing our people for the maintenance of a permanent military class, which will destroy forever the peace and the free trust goods we have had for Canada, that of a pacific industrial people, growing in the furthest North, and free from the follies and sins of the old, giving liberty and justice to her children,

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 \$7.85 a Cwt. FOR HOGS WEIGHING 160 TO 220 LBS.

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and trusting to the strength of righteousness in her foreign relations. This step will have been taken without giving the people a chance to pronounce upon it, either in a general election or by a plebiscite. Surely there must be some urgent reason for such an action; something so urgent that the delay caused by an appeal to the people would be dangerous. Otherwise it would appear incredible that in a country ruled by the people (as of course we are) such a step could be taken without the direct approval of the popular voice.

And yet, to the average mind, no such and no cause for war with any nation is apparent. England, it is true, has been drawn into the mad race of military Europe, and the physical condition of her people, deteriorating for lack of food, and a large proportion of her most fertile land lying idle, for purposes of pleasure to the rich, is spending untold sums on her navy. It is argued that she must do so, because of her food supply, though it is just possible that if her land were wisely utilized she might be made much more self-dependent. And, because England is so situated, therefore, we, her daughter nation, must come to her aid and build an auxiliary navy of our own. That the present is no emergency measure is evidenced by the fact that this is merely the "nucleus" of a navy. Surely these are no reasons for entering upon such a radical change of national policy without a reference to the will of the people.

It is not true that the people of Canada are unanimous in their views upon the question. Labor has pronounced against it, and the feeling of the farmers, as evidenced by the agricultural press, is solidly anti. Surely these two classes cannot be ignored. There are indications everywhere of popular disapproval, and in the face of such a movement with the connivance of the Opposition to proceed with the suggested policy, is unworthy of a free country, at least until such time as the people have had opportunity to pronounce upon it.

There are other ways of helping our well-to-do mother land. Direct contributions of money would seem to be many very objectionable, especially when we consider our tremendous debt and our increasing expenditures. It would, in fact, be much better that the present proposal, in that it would avoid the complications which must necessarily arise between England and Canada as to the control of Canadian navy; would not be pledging us to a naval policy of any sort; and would escape the departmental quarrels which sometimes exist in Canadian government. But why cannot we do even this? England's greatest need is industrial prosperity; with this she can build her own breadstuffs, and what is at least of equal importance, feed her people. This she can increase largely, and to our own benefit. Let us throw down the barriers of trade between England and Canada, and admit her goods free of duty. This would undoubtedly greatly increase English production, and would be the best answer we could give to any threat of foreign interference. At the same time, it would make Canada able to come to the help of Mother England should occasion arise; by increasing our agricultural development, and helping the farming class, which furnishes

the best element of defence, to hold its own; and by increasing the number and efficiency of our merchant marine. These two classes of the people would be benefited by this proposal, do not make for war, as the creation of a navy does, but would be most powerful factors in time of war.

However, it is a Dominion Government which will not enforce laws against our country, even when these are making 50 per cent. profit on their capital, as is shown in at least one case by report of a Royal Commission, is too completely in the hands of the favored monopolists to dream of any such thing. But our politicians should not deceive themselves; the proposal to create a military and naval service in Canada, though approved by a certain class, is directly contrary to the wishes of the masses of the people, and any attempt to ignore this must at the last meet its reward.

E. C. DREYER, Master, Dominion Grange.

COW TRANSFERS FOR SEPTEMBER, 1909

- (Continued from page 16) Prince of Clover Bar, H. W. Mullins to H. Judson Smith, Clover Bar, Alta. Sir Royal Inverness, W. G. Elliott to W. Sangster, Ormatown, Que. Prince of Wales, J. P. Boas to A. C. Robinson, Pointe Fortune, Ont. Sir Herford King De Kol, W. Bower to Royal Pieterje Paul, A. C. Hallman to E. W. Meade, Biora, Ont. Rural King, A. S. Blackwood to Can. Pat. Irrigation Col. Co., Calgary, Alta. Sarsfield, W. C. Blackwood to Thos. Laycock, Calgary, Alta. Sir John De Kol Marzona, John C. Schilling to Kal Marzona, Thorold, Ont. Schilling's Major Posch, E. D. George to Shadsworth, Prince Currie's, Ont. to A. E. Hule, Norfolk, Ont. Sir Acme Beets Sagar, Dr. L. de L. Harwood to J. H. Rousseau, Trois Pistoles, Que. Sir Acme Posch Mechtvide, A. C. Hallman to J. H. King, Ont. Sir Burke, Luther Deeks to Allan, Ont. Sir Charles De Kol, Fred Carr to Milton Hatch, St. Thomas, Ont. Sir Danforth, J. Beer, Lakreviw Lowell, Ont. Sir Godra Favoris Posch, W. F. Elliott to Andrew Grant, Coleman, Ont. Sir Hengrove, W. C. Currie's, Ont. John C. Brown, Stamford, Ont. Sir Hengrove Pieterje, J. M. Branscombe to R. C. Brown, Ormatown, Ont. Sir Inka Scott, D. R. W. Walker to Sir Mechtvide, Ormatown, Ont. Sir John De Kol, J. H. Garratt to Mrs. Annie Marchal, Cayley, Alta. Sir Nettleton Posch, Martin McDowell to Walter Marshall, Norwich, Ont. Sir Paul Thomas, Fred Carr to Thos. Nevill, St. Thomas, Ont. Sir Peter Johanna, A. S. Blackwood to Can. Pat. Irrigation Col. Co., Calgary, Alta. Sir Sydney Una De Kol, B. Mallory to Springhanks De Kol Boy, C. E. Thompson to T. H. Dent, Woodstock, Ont. Sir Teddy De Kol, C. E. Thompson to Curtis, Payne's Mills, Ont. Thos. De Kol, J. H. Prince, G. MacIntyre to J. A. Liverton, G. MacIntyre to J. S. Swaney, J. Isaac W. High to Abraham De Kol, Ormatown, Ont. Sir Tussie King Edward, H. C. Brown to Sir Tussie King Edward, H. C. Brown to Woodland De Kol, Ormatown, Ont. Sir Well to L. Baker, Russell, Ont.



**CHEESE BOARDS**

Napanee, Nov. 12-145 white and 397 col-  
ored offered, 300 of which sold at 11½¢; the  
balance refused.  
Caston, N. Y., Nov. 15-1000 boxes of  
cheese sold at 15½¢.  
Proctor, Nov. 12-355 colored and 27  
white cheese offered; all sold on the board  
at 11½¢.  
Vankele Hill, Nov. 12-1462 white and  
39 boxes colored cheese boarded; the price  
offered for both colored and white was  
11½¢, and at this figure nearly all was  
sold on the board.  
Winchester, Nov. 12-224 boxes offered;  
114 sold at 11½¢.  
Pieton, Nov. 12-15 factories boarded 844  
boxes; all colored; highest bid 11 5/16;  
sold at 11 5/16; 469 at 11 5/16.  
London, Ont., Nov. 13-9 factories offer-  
ed 1595 colored cheese at to-day's board;  
110 sold at 11 5/16; 49 at 11 5/16.  
St. Hyacinthe, Que., Nov. 13-There were  
84 boxes of cheese on the board at 10½¢;  
no sale.

**GOSIP**

In the dairy test for the cow making the  
most butter fat by the Babcock test in  
4 hours at the "New York State Fair",  
George's Pyrrha and Pontiac-Aris son 1st  
and 2nd in the fresh cow class, although  
both had been milking since May. Pon-  
tiac Katie 2nd with the same ribbon in class  
for cows at least six months after calving.  
The two former are sisters of "Pontiac  
Hermes" and the winner in the class No.  
1 is sister of "Butter Boy Calamity"; the  
two sires that Mr. Brethen has been  
using in his "Hill-Crest" herd, Norwood,  
Ont. Read his ad. on this page.

**WINTER FAIR ENTRIES CLOSE NOVEM-  
BER 29th.**

Live stock exhibitors who intend to  
make entries for the winter fair are re-  
minded that their entries must be in the  
secretary's hands on Saturday of this  
week. Entries received after that date will  
be charged double fees. This rule is to  
be strictly enforced as it is necessary to  
close all the entries in the proper time in  
order to prepare the catalogue and have it  
published before the opening of the fair.  
Livestock exhibitors who have un-  
dergone, November 22nd to make their en-  
tries.

Last year at this fair there were 5400  
entries in the different departments for  
beef and dairy cattle, sheep, swine, poultry  
and seeds. With the increased accommo-  
dation provided by the new building, and  
the new department for horses, it is  
expected that this year at least 7500 en-  
tries will compete for the \$15,000.00 offered  
in prize money.

Send entries to A. P. Westervelt, Secy.,  
Parliament Buildings, Toronto.

**SECRETARY WILSON ON THE CHICAGO  
STOCK SHOW**

The Honorable Secretary Wilson, Secretary  
of Agriculture, in speaking of the Inter-  
national Live Stock Exposition, which is  
to be held this year from November 27th  
to December 10th, said:

"The International Live Stock Ex-  
position as an educational factor, has carved  
a niche for itself.

"Producers are confronted with the pro-  
blem of increased cost of every commodity  
that they use, greatly enhancing their ex-  
penditure.

"Obviously this necessitates rigid econ-  
omy, and the man who reduces cost of  
production to a minimum insures maxi-  
mum profits and his own survival where  
others fail.

"The International is teaching its valu-  
able lesson to the country at an oppor-  
tune moment.

"During the period of cheap feed and  
feed lot extravagance such education was  
not valued because its benefits were not  
realized at the time.

"Under new conditions, the man who  
produces beef, pork, poultry, cannot in-  
afford the use of inferior material, cannot  
be business.

"Economy requires that he handle the  
very best types of stock, the most improved  
breeding; and these lessons can be obtain-  
ed at the International Live Stock Ex-  
position, which is acknowledged to be an edu-  
cational institution of the highest order  
in its line."

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LIGHT HORSE POWER for two or four  
horses; complete and in good order, for  
sale.

**H. G. CHARLESWORTH**  
at Adelaide Street East TORONTO



**ROCK SALT** for Horses and cattle, in tons and  
carloads.  
Toronto Salt Works, Toronto.  
**J. H. CLIFF, Manager**

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**TAMWORTH AND BERSHIRE SWINE**—  
Borns 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 stan-  
dard breeds of American poultry and Pekin  
ducks. Settings for sale. 6-4-210

**J. H. M. PARKER**

**HAMPSHIRE SWINE**

First established here in Canada; for  
sale now. Exceptional fine herd of hand-  
some, solid young stock from Imp, sires  
and dams. High kind for foundation  
stock. From six weeks to two months old,  
also a few very choice girls, good ones  
to breed for spring farrow. Male pigs  
ready for service. Pairs or trios furnish-  
ed no kin. Pedigree and safe delivery  
guaranteed. Write for prices or call and  
see. Correspondence solicited.

**A. O'NEIL & SON,**  
Box 1, Birr, Middlesex Co., Ont.

**FOR SALE**

**THE JERSEY BULL, ROSDALE REV-  
ELLER, A. J. C. O. 7501;** sold few cows,  
no white, an extra fine animal, worth \$300.  
Will sell for \$75. Quiet and right; great  
stock getter.

**ALSO JERSEY BULL CALF** will regis-  
ter, by Rosdale Reveller, of grade of Cattle  
Club cow; six months old; \$20.

**H. G. CHARLESWORTH,**  
61 Adelaide St. East, Toronto

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

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ROXBOROUGH, QUE.

**"La Bois de la Roche" Stock Farm**

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AYRSHIRES, imported and home bred.  
AYRSHIRES of the best bason types.  
**WHITE ORPINGTON, WHITE WYAND-  
OTTES and BARRED ROCK PULTRY.**

**HON. L. J. FORGET,** J. A. BIDAULT,  
Proprietor, Manager

**R-55-10** Ste Anne de Bellevue, Que.

**SPRINGHILL AYRSHIRES**

Imported and home bred stock of a  
ages for sale. See our stock at the lead-  
ing shows this fall. Write for prices.

**ROBT. HUNTER & SON**  
one Dist. Phone Masville, Ont.  
5-7-13-10

**IMPORTED AYRSHIRES**

Having just landed with 50 head of  
choice Ayrshires, mostly purchased at the  
great Baraboskie sale, I am prepared to  
fill orders for herd heading bulls, selected  
from the best dairy herds in Scotland. 12  
\$5 for service to choose from. Also show  
remains of all ages. Cows with milk re-  
cord up to 70 lbs. per day. Write and let  
me know your wants. Long distance  
phone.

**R. NEES, Howick, Que.**

**RAVENSDALE STOCK FARM**

Ayrshire, Clydesdale  
and Yorkshire  
If in need of good  
stock, write for prices  
which are always  
reasonable.  
**W. F. KAY,**  
Willesborough, Ont.  
6-5-19-10

**DON'T FORGET** The SPECIAL BREEDERS'  
NUMBER of Farm and Dairy,  
Coming out DECEMBER 2ND.

This is the issue in which to advertise your live stock  
for sale. Or, your Dispersion Sale, if you are planning  
to hold one. Send in your copy at once. Don't delay or  
you may miss this opportunity. Copy should be here  
by November 25th. Write us to-day:

**ADVERTISING DEPT. FARM AND DAIRY PETERBORO, ONT.**  
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**AYRSHIRES.**—Record of Performance  
made a specialty: young bulls from E.  
of P. cows, and cows that will go on  
at next freshening. Milk reports of  
dams, for everything.  
**JAMES BEGG, Box 85, St. Thomas**

**MOSSGILL AYRSHIRES**

Bull and heifer calves, and yearling  
heifers, of good milking strains, for sale  
at reasonable prices.  
**JOHN FERGUSON,**  
Lambton Co., Cambridge, Ont

**SUNNYSIDE AYRSHIRES**

Imported and home bred, are of the  
choicest breeding, of good type and have  
been selected for production. THREE  
young bulls dropped this fall sired by  
"Nether Hall Goodtime"—8648—(Imp.)  
as well as a number of various ages  
for sale. Write or come and see.  
**J. W. LOGAN, Howick Station, Que.**  
(Phone in house.) 6-5-19-10

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From one month to two years old, all  
bred from large, good-milking stock. Also  
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**DANIEL WATY** out to **HON. W. OWENS,**  
Manager, Proprietor,  
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**HOLSTEINS**

**FOR SALE HOLSTEIN BULL CALF**

Born, Dec. 31. Dam's official record at  
three years old, 82 lbs. of milk and 12  
lbs. of butter. Bull calf, born March 18th,  
Canadian Champion of his age; of-  
ficial record at two years, 43 lbs. of milk  
and 20 lbs. of butter. Also my two year old  
stock-bull, grandson of Saranac Lad. Euf  
**DAVID GAUGHELL, Yarmouth Centre, Ont.**

**LAKEVIEW HOLSTEINS**

Herd headed by Count Hengerveld Payne  
De Kol, son of Pieterte, Hengerveld's  
Count De Kol, who has five daughters  
averaging over 30 lbs. butter in 7 days.  
Several young bulls from this sire for  
sale, also a few heifers. G. T. R. and  
met by appointment.  
**E. F. OSLER, Bronte, Ont.**

**RIVERSIDE HOLSTEINS**

Herd contains 100 head, headed by Sir  
Pieterte Fouch De Boer, whose dam and  
sire's dam average 67 lbs. butter in 7  
days; 87 the milk 1 day. Prince De Kol  
Fouch, dam 27 lbs., also successful in  
dairy test, Guelph. Choice young bulls  
for sale.  
10-11 **J. W. RICHARDSON, Caledonia, Ont.**

**Hill-Crest Holsteins**

HEADED BY  
**PONTIAC HERMES**  
SON OF  
**HENGERVELD DE KOL**  
(World's Greatest A. R. O. Sire)

The only bull in the world with "over 100  
A. R. O. daughters, half of which have 7 day  
butter records better than 20 lbs." As our  
herd is not large, only a small number of  
Pentiac to a limited number of approved  
cows. Also a few young cows in calf to him.  
Young Bulls sired by "Butter Boy Cal-  
amity" for sale now. Prize winners and  
out of producing dams. If in the market  
for our kind, write or come and visit our  
herd and learn more about them.

**G. A. BRETHEN - Norwood, Ont.**

**MAPLE LEAF STOCK FARM**

**GORDON H. MANHARD**  
Manhard, 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-13-10

**HOLSTEIN CATTLE**

If you are thinking of buying a choice  
young cow or heifer, come and see  
our herd. Will sell anything. Have a  
dozen beautiful Holstein-Friesian calves to  
Sauer Hill, Choice Godes (Imp.), who has  
7 days and one sister that held the  
record as 4 year old with 31.00 lbs. butter.  
Write us what you desire that we will guaran-  
tee everything just as described. We will  
meet at Hamilton by appointment.  
**D. C. FLATT & SON, Millgrove, Ont**  
L. D. Telephone 271, Hamilton 1

**SUNNYDALE**

OFFERS BUTTER BY HENGERVELD,  
calved April 8th, 1909. He is a good indi-  
vidual and well marked. Dam Helena De  
Kol's De Kol, half sister to Hengerveld De  
Kol, who has 102 A.R.O. daughters, 51 of  
them with 7 day butter records of over  
20 lbs. Write for record lacking of this  
calf.  
**A. D. FOSTER**  
6-5-10 Bloomfield, Ont.

**LYNDALE HOLSTEINS**

Head your herd with a son of  
Sara Hengerveld Kormyko whose  
dam was record holder at \$100.00.  
His 3 nearest dams average 30.19  
lbs. butter each in 7 days. Only 2  
of his sons left. We still have a  
few more of this sire for sale. Write to  
Paul, and a number of other Count De Kol  
Foster's sons.  
**BROWN BROS., LYN, Ont.**

**HOME-BRED AND IMPORTED  
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We must sell at least 20 cows and  
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natural increase of our herd. This is  
a chance of a lifetime to get a good  
bull. Write for prices. We have a few  
young bulls, also a few heifers. G. T. R.  
and met by appointment.  
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world's greatest 5 year old sire, dam Aegle  
Jolly Beets, 4 year old champion Jr. 4  
year old—29.56 lbs. butter 7 days. Dam of  
calfs a 20 lb. 2 year old, and 23 lb. 4  
year old. Write for prices. Reasonable  
breeding.  
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