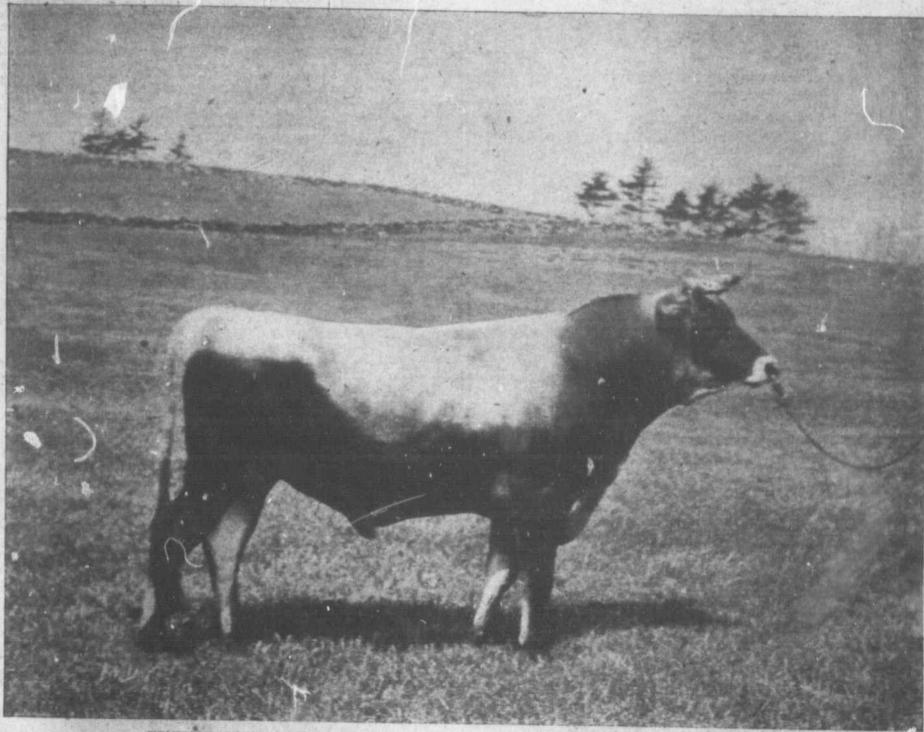


FARM AND DAIRY

RURAL HOME

DEVOTED TO
BETTER FARMING
AND CANADIAN
COUNTRY LIFE

Toronto, Ont., October 1919
Comm. of Conservation
Asst. Chairman Jan 19



TEMISIA'S OWL'S ROGUE, CHAMPION OVER ALL BREEDS AT THE VANCOUVER EXHIBITION.

Owned by the University of British Columbia. (See page 7.)

What Physicians Know About Butter

It is Necessary for Growing Children. (Page 3.)

A Visit With Peter Smith of Stratford

Tom Alfalfa Reports on Doings at "Clover Bar." (P. 5.)

Cooperative Live Stock Shipping

It is already an Approved Success. (Page 4.)

Canada's First Community Breeding Centre

The Kelowna Holstein Breeders' Association. (Page 4.)

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Farm and Dairy's Seed Competition

VISITORS at several of the fall fairs in Eastern Ontario have already had an opportunity of inspecting the results of the seed and vegetable competition conducted by Farm and Dairy. The exhibit was one of the features of the Peterboro fair and a much appreciated attraction of the fairs at Platon and Kingston. The entries were not as numerous as we had hoped, nor, in a few cases, was the quality all that could be desired. As this was the first competition of the kind ever conducted in Canada, however, it was not to be expected that exhibits would be as numerous as at the regular seed fairs. Many Farm and Dairy readers, who have had an opportunity of seeing the exhibits at these local fairs, were surprised at its extent and intimated their intention of exhibiting another year if the competition were made an annual affair. The exhibits were judged by G. H. McNeely, a professional seedman with a wide experience in judging seed and vegetable exhibits under the auspices of the Department of Agriculture. In some classes Mr. McNeely found as good samples of seed as he had ever seen, while in other classes, following government standards, he was unable to award first and in some cases even second and third prizes for the exhibits.

Special mention might be made of the wheat classes. The fall wheat submitted by Jacob Lerch, Preston, which won first place, weighed 49½ lbs. to the bushel. Fred Cable of Forest had Marquis spring wheat which weighed 66 lbs. to the bushel. Even the fourth prize Marquis weighed 61½ lbs. to the bushel. Abundance oats weighed up to 45½ lbs. to the bushel. The alsike specimens that were submitted were of extra good quality, but the timothy did not grade as well. The season for corn to show to advantage and there was only one entry worthy of a placing. Awards in full were as follows:

Full wheat: 1, Jacob Lerch, Preston; 2, Fred Cable, Forest; 3, Geo. Erwin, Peterboro.
Sowing wheat: 1, Fred Cable, 2, H. Matheys, Putnam; 3, A. Humphries, Hastings; 4, E. S. Moore, Hastings.
White oats: 1, Midway Spring Show, 2, F. W. H. Hurler, Welland; 3, Irene Chalmers, Smith's Falls; 4, H. G. Chalmers, Smith's Falls.
Barley: 1, Jacob Lerch; 2, Adam Humphries; 3, Midway Spring Show; 4, Clem. H. Ketchum, Cheltenham.
Clem. H. Ketchum; 4, Jas. R. Cannon, Avonmore.
Beans: 1, Sarah E. Kingston, Stirling; 2, Irene Chalmers, Smith's Falls; 3, J. E. Huff and Son, Bloomfield; 4, Jacob Lerch.
Peas: 1, J. Humphries; 2, E. W. Wilson, Peterboro; 4, Adam Humphries.
Clover seed: 1, J. E. Huff and Son; 2, J. H. Earl, Ida; 3, Daniel Gough, Emnismore.
Alfalfa: 1, Ivan Roth, Fisherville; 2, Mrs. Jas. N. Allen, Canboro.
Timothy: 2, Midway Spring Show; 3, J. H. Earl.
Sweet clover: 1, Ivan Roth.
Potatoes: 1, J. J. Williams, Peterborough; 2, J. E. Huddell, Peterborough; 3, Harry Reynolds, Peterborough.
Corn: 2, Jean Touchburn, Bridgenorth; 3, Irene Chalmers; 2, Jean Touchburn; 3, J. K. R. Petrie, Peterborough.
Turnips: 4, Jacob Lerch.

The Charlottetown Exhibition

THE Charlottetown Exhibition opened under unfavorable circumstances. The first two days were wet and stormy. The farmers could not get away on account of a belated harvest, and the railway fares were this year more than double that of former years. The two last days of the fair were good and pleasant, and there was a large attendance of Nova Scotia and New Brunswick, chiefly on account of the five days trotting meet during the Exhibition. The Exhibition tended more the form of a horse-racing meet than an agricultural fair. This was imperative,

however. The Exhibition Association got so grant as usual from the provincial government. The grant was refused "on account of the fact" which is an excuse for a great many things. The Association, however, nothing daunted, determined to have the annual fair anyway. They asked private assistance, and they got considerable from the Provincial Merchants' Association, from the city of Charlottetown, and a small grant from the Live Stock Branch of the Dominion Department of Agriculture. These aids, with their own money and enterprise, warranted them in holding the Exhibition, open to all Canada, if, therefore, there was a lot of horse trotting. It was to furnish the show of war to meet the expenses of holding a great Dominion wide agricultural fair.

Last year the total exhibits numbered 4,391. This year, owing to the many setbacks the farmers have experienced in the way of unfavorable weather, it was not to be expected that a great show would be made. They did far better than expected, however, for the total number of exhibits this year was 5,711, the third highest in the history of the association. This reflects great credit on the farmers, seeing that the prices had necessarily to be much lower than for past years. There was a slight falling off in the horse entries, but the shows were of superior quality. There was a decided falling off in cattle, there being about one hundred less than last year. In sheep, swine and poultry the entries were practically on a par with other years, both in quantity and quality. Roots and vegetables showed a slight decrease, and though an off year in fruit the entries were but 130 less than last year, which was an exceptionally good fruit year. The dairy products were somewhat superior to last year. The judges in live stock were: Horses, Dr. S. C. Manning, Ottawa; and J. M. McCallum, Ottawa; best cattle: Prof. Geo. Day, Guelph; dairy cattle: B. A. Bull, Brampton, Ont.; sheep: J. B. Brien, Bridgewater, N.S. This year and 1911 were as follows:

	1917.	1918.
Horses	256	216
Cattle	518	378
Swine	390	375
Poultry	297	175
Roots and Vegets.	483	412
Fruits	450	429
Dairy Products	119	114
Grain and Seeds	95	82
Plants and Flowers	207	205
Miscellaneous	230	196

Milk Price News

MILK dealers in the town of Chatham, Ont., have jumped the price of milk to the consumers 2 cents a quart, making the price 12 cents. The producers, according to a press despatch, are getting a price of 10 cents, saying that they must get more than 5½ cents a quart, or they will not supply milk to the retailers. The price mentioned is paid at the farm.

Woodstock, situated at the heart of one of the greatest dairy districts in Canada, has always gotten its milk cheaply. The price of milk was recently advanced to 12 cents a quart, or nine quarts for a dollar if paid in advance. The former price was 10 cents a quart. The largest distributing company in the city of Woodstock is owned cooperatively by a number of large producers.

A Hamilton paper reports that the Wentworth Milk Producers' Association, which had planned to demand an advance for winter milk, similar to that at first demanded by the Toronto Producers' Association, has now determined to be content with summer prices following on the action of the Toronto Association, which because of the large fall milk flow has received its previous order for an advance to \$2.80 per eight-gallon can delivered.



We Welcome Practitioners

Trade Increases the

VOL. XXXVII.

I TAKE it there are

production of milk. I one I put first. It feeding of the cow. It is not the cow. Now, it is important to a man who has stored a knowledge that he has the proper handling of mind about the man, get the ones in the barn as I will get the milk no a cow before or not. You her in six months or instead half as much as the man who handles the animal and that is where

I remember a man who driving a stage coach. man would get mad and would keep them in they were never able to ever satisfied. It works with a cow. The same time the cow does not he wishes, remonstrate with the stool, is not got a success.

I used to wonder who who drove the stage coach and for and used to say good for nothing. How many a man who has been running a gasoline engine the engine did not work no good for him to be could not make anything used at the engine no he and used his brains. Have a man who cannot temper, give him a train

We have the man first second and the third her. There are the thant things.

Grade Cows Advise

Let us consider the cow breeding. You might breed cow that would be market at from \$400 to this is not the kind of cow we give \$500. I seem many men ambitious into the breeding of pure this service. One or two kind the experience, has been can make a success the foundation stock to this province the greatest herds will be made by and in buying a purebred we can do for Nova Scotia to be found and sell there

It is the work of the A up a herd which will produce herds of the same any sympathy from me to females, unless I recognize ability to go ahead with which I am glad to do we can do for Nova Scotia to be found and sell there

* An Address to the ch of Nova Scotia.

Mention Farm and Dairy when Writing



We Welcome Practical Progressives Ideas

AND RURAL HOME

The Recognized Exponent of Dairying in Canada

Trade increases the wealth and glory of a country; but its real strength and stamina are to be looked for among the cultivators of the land—Lord Chatham.

VOL. XXXVII.

TORONTO, ONT., OCTOBER 10, 1918.

NO. 41.

Three Factors That Make Dairying a Success

As Defined by Professor J. M. Trueman, of Nova Scotia Agricultural College

TAKE it there are three things necessary for the production of milk. You may be surprised at the one I put first. It is not the cow, it is not the feeding of the cow. It is not the feed which the cow eats. It is not the cow herself. It is the dairyman. Now, it is important to have a man who thinks and a man who has stored away in the cells of his brain knowledge that he has built up by years of work in the proper handling of cows. You may say, never mind about the man, give us some great cows like the ones in the barn at the Agricultural College and I will get the milk no matter whether I ever saw a cow before or not. You will not do it; you will ruin her in six months or milk her so that she won't produce half as much as she should produce. It is the man who handles the animal who must have the knowledge and that is where we come back to every time.

I remember a man whom I once knew who was driving a stage coach. About every other day that man would get mad and give the horses a kicking and would keep them in a nervous condition so that they were never able to do the work and nobody was ever satisfied. It works the same with a cow. The man who, every time the cow does not do just as he wishes, remonstrates with her with the stool, is not going to make a success.

I used to wonder what the man who drove the stage coach was good for and used to say that he was good for nothing. However, eventually we found a place for him, running a gasoline engine. When the engine did not work right, it was no good for him to beat it. He could not make anything by getting mad at the engine so he kept cool and used his brains. So if you have a man who cannot keep his temper, give him a tractor.

We have the man first, the cow second and then the feed to give her. These are the three important things.

Grade Cows Advisable.

Let us consider the cow as to her breeding. You might get a pure-bred cow that would sell on the market at from \$400 to \$500, but this is not the kind of cow you want to give best results. I have seen many men ambitious to get into the breeding of pure-breds. I would not give this advice. One or two here and there who have had the experience, have the capital and the ambition can make a success of pure breeds to furnish the foundation stock to use with a grade herd. In this province the greatest improvement in the dairy herds will be made by the use of pure-bred stock, and in buying a pure-bred sire care should be taken to study up his ancestry. Too many bulls are sold simply because they are pure-breds and not on account of their record.

It is the work of the Agricultural College to build up a herd which will provide pure-bred sires for the grade herds of the province. You will never get any sympathy from me if you come to buy pure-bred females, unless I recognize that the man has the ability to go ahead with the pure-bred business in the best case I am glad to do what I can for him. What we can do for Nova Scotia is to get the best females to be found and sell their sons to improve the herds

all over the country. This is the work which the best breeders of pure-breds are doing.

These bulls should be taken good care of and be used for a number of years. A man told me to-day that he had to sell his Ayrshire bull, because he was getting cross, and he was only three years old. If he was a good bull, he was just throwing him away as bad as breeding was concerned.

If you get a good bull and breed to grade cows, the next generation will be more than half as good again as their dams. In the second generation you will use the same bull on the 50 per cent heifer, this generation will be 75 per cent pure. The next time you may use another bull just as good, preferably bred along the same lines in an endeavor to get a definite strain of blood introduced into your country. In this way you will get the progeny 87 per cent pure.

So by buying a bull of the right kind and using him on these grade cows and keeping this up for five generations, which means 10 or 12 years' work, you have your herd 96.75 per cent of the right blood.

to find enough to go around and we have to use the poor ones.

I do not want you to think I am opposed to the right man going into the breeding of pure-bred cattle, but I will say that the general farmer who is producing milk is better off with this kind of stock than he is to try to breed pure stock. Even if they do sell at a high price there is nothing in it in the money way and you had better leave it for the men who have time, ability, capital and a chance to keep posted on it.

We would soon crowd out the breeder who was not giving us the best of stock if we did not kill the bulls off so much. A man came to me to-night and told me the experience his society had had. First they bought a good bull which gave them good results; then they bought a poorer bull and he was not satisfactory; then they bought another and he was not satisfactory. Now they have come to the conclusion that they must go back to a good breeder and put more real money into a bull.

The Feeding of Cows.

I will just take time to very briefly impress upon you some facts in regard to the feeding of cows.

Just to keep a 1,000-lb. cow for one year, just to maintain her so she will do her work, just to pump the blood, just to keep her warm and enable her to move around would take 255 lbs. of protein and 2,892 lbs. of total nutrients. In order to produce 8,000 lbs. of four per cent milk, she will require 520 lbs. more of protein and 2,800 lbs. of nutrient. This will be supplied by 4,500 lbs. hay, 5,300 lbs. turnips, 428 lbs. of bran, 428 lbs. middlings, 214 lbs. oats, 428 lbs. cotton seed and five months' pasture. If you were to figure the cost of feed, it would be as follows:

Hay	.....	\$25.63
Turnips	.....	13.37
Bran	.....	8.56
Middlings	.....	10.70
Oats	.....	6.24
Cotton Seed	.....	12.84
Pasture	.....	10.00

\$97.54

When you give her 775 lbs. of protein and 5,692 lbs. of nutrient, you must remember that you have to feed her 225 lbs. protein and 2,892 lbs. nutrient to just keep her alive.

You will have to add for expenses \$60. Do not think that all it costs to keep a cow is to feed her. We have to add to that the labor which is equal to \$40 anyway, and then there are the various taxes, taxes, insurance, veterinary attention, bull service, etc., which will make a total of not less than \$60. The cost of keeping a cow is, therefore, \$150. If she gives 320 lbs. butter fat at 40c, the returns are only \$128. Add to this skim-milk, manure and calf and there will be a small profit. I would call your attention to the fact that it takes as much for the actual maintenance of a cow giving 4,000 lbs. as for a cow giving 8,000 lbs. This would be a good thing to impress upon your patrons' minds. Make them understand that a cow giving 4,000 lbs. milk costs as much to maintain as a cow giving 8,000 lbs. It costs so much to maintain an ordinary cow, that you cannot possibly make anything out of her.

(Continued on page 10.)

What Physicians Know About Butter

By E. W. SIMMONS

THE other day I stopped a local physician on the street and said to him, "Doc, what do you know about butter?" "I know a lot more than I did a few weeks ago," he replied. "I had children in three different families under my care who were not doing well. Nothing specific was the matter with them, but they were not growing, not developing the way they should. In the first case I prescribed certain medicine and, knowing that the child had not been drinking milk, also told the parents to give her plenty of milk and butter. There was such a decided change in the child within a week that I made up my mind it was not the medicine that was responsible. On investigation I found that the child previously had been eating butter substitutes, and I decided that the butter and milk caused the improvement. I then told the parents of the other children to spend their money for butter instead of medicine and doctor's fees, for in those other cases I found they had been using butter substitutes also. You ought to have seen those kids two weeks later."

At the Wisconsin Dairymen's Association last winter, I heard Miss Amery, of the University of Wisconsin, say in her address in the war hospital of what it was found that wounded soldiers who did not have milk and butter recovered but very slowly from their wounds. These same men given a liberal supply of milk and butter healed their wounds quickly.

Not only does the dairy cow produce food, not only does she produce a cheap food—indeed, perhaps the cheapest, not only are dairy products important as food for human beings, but, in the light of recent discoveries, we must look upon milk as the indispensable element in the dairy industry. There is not a business built upon some passing fancy or transient fashion; it is built upon the firm foundation of human need that will surely last so long as human nature endures.

Stick to One Breed.

In too many instances the breed is shifted. If you have been working on the Holstein and change to the Shorthorn you break down the work you have been doing. This is the story. I might talk here a week and give lectures after lecture but I cannot tell you anything more about breeding. Improve your stock on the plan of "every time a little." Have every generation a little better than before.

One reason you get discouraged is that you do not get a bull good enough. The price is the smallest thing. When you pay \$200 for a bull you are a great deal more likely to take care of him. The trouble is that we do not buy good enough bulls. We buy poor bulls and after a year or two they are turned over to the butcher. We shift and shift and have not a chance to select as we have to use about all the bulls that are born from decent cows. If you would buy bulls and keep them for ten years, we would have to throw away the bulls that were not up to the highest mark but that is what we have to scratch around the country

An address to the cheesemakers and creamery men of Nova Scotia.

A Visit With Peter Smith of Stratford

His Farm—His Farming—His Buildings and His Stock: As Seen by Tom Alfalfa

A FEW weeks ago the editor of Farm and Dairy was good enough to place in his special Exhibition Number a few paragraphs that I wrote him about the home generating lighting plant on the farm of our old friend, W. W. Ballantyne of Stratford. Incidentally, in that letter, I made mention of a neighbor of the Ballantynes, Mr. Peter Smith, who also has a home lighting plant.—So a fine home to put it in, a fine farm and a herd of Holstein cattle that is recognized as one of the best in Perth County. As Mr. Smith lives just a couple of miles up the road from Keilduff Farm, Mr. Ballantyne and I took a run up to see him,—my host for a neighborly visit and I to renew old acquaintanceship.

Mr. Smith is big, jolly and likeable. He takes a great interest in all the duties that go with his citizenship and has served in a public capacity in his home county. He entertains high hopes for the United Farmers of Ontario, and is always ready, if his work permits, to help organize a new branch of the U.F.O. or contribute to the program of an old one. His enthusiasm for farmers' organization work is almost as great as his admiration for Holstein cattle and quite as contagious. In that time, not so far in the future, when farmers will have their own representatives in Parliament, I would not be surprised if the farmers of Perth County were to pick Peter Smith's and clothe him with the honors of an M.P. or an M.P.P. In fact, Mr. Ballantyne whispered something in my ear to this effect, while others proclaimed it aloud. Mr. Smith and I, however, talked about cows, crops and other subjects of mutual interest.

Perth is one of the real good agricultural counties of Western Ontario. I have always admired the great stretches of level rich land in the Ontario peninsula and have seen the most of it in the best way in the world—from our Ford car. I have found that Perth has its full share of good agricultural land and Peter Smith has 150 acres of it that is as good land as there is. It is all free of bush and the soil varies from a heavy to a medium heavy clay loam. It is laid out in big fields and is what one would call nowadays an ideal tractor farm, although, like myself, Mr. Smith still sticks to horses, working them in three and four-horse teams; that is, unless he has changed his mind and bought a tractor since I was talking with him. The farm is the original Smith homestead, which the present owner's grandfather chopped from the bush. I certainly commend Grandfather Smith's judgment in soil.

The Modern Barn.

One of the best features of Friend Smith's farm, aside from those with which nature endowed it, is his very modern barn. The fact that this barn was rebuilt from two old barns shows the possibilities of remodeling. The work was done in 1915. The original barn was 100 feet long by 40 feet wide with a basement under the entire structure. Mr. Smith moved another barn 40 feet square up against one



Francy 3rds Hartog 2nd, the Herd Sire at Clover Bar Farm.

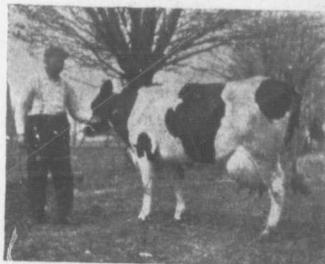
corner of the larger barn and put a foundation under it. The big stable, therefore, has a cow barn 100 x 40 feet, and horse stable and box stalls 40 feet square. There are tie-ups for 42 head, arranged in two long rows in the main barn. In addition to the two rows of cattle, there is room along one side for box stalls for suckling calves. The rest of the calves are accommodated in the new calf barn close at hand.

I admired the interior arrangements. I like to see work done the easiest way; in fact, I am lazy enough to like to do it that way myself. Evidently Mr. Smith shares this weakness of the flesh. At the end of the stable nearest the house is a milkroom, where in are cooling tanks and a cream separator run with a small electric motor. At the opposite end of the stable is a feed room. Opening directly into this feed room is the chute from the big cement silo, 14 feet inside diameter and 70 feet high. Other chutes from the granary, the entrance to the root house and, finally, the hay chute, the latter enclosed to prevent the dust filling the stable atmosphere. One might almost say that all kinds of feed were "right on tap" in this feed room. When it comes to carrying the feed to the cows, a truck is preferred to the overhead carrier, in that it can be taken wherever the feeder desires, and perhaps, too, because it is a powerful stimulus toward keeping the feeding alleys clean. Manure is removed, however, with overhead chutes. A seven horse power engine sitting in the stable chops grain, pumps water and runs the milking machine.

Remembering the hearty endorsement of the milking machine as per my friend Ballantyne, I asked Smith what he thought about it. "Well, I have just had the machine for 18 months," he told me, "and we like it very well. Some of the cows milk out perfectly with the machine, others not so well. It depends on the cows. The same is true when you milk by hand."

When he fixed up his stables, Mr. Smith made a permanent job of it. The floors and mangers are all of concrete. The equipment, even to the partitions in the calf stalls, is of steel. It is as modern

as a stable as they have in the new dairy barn at Guelph, which I can visit frequently at that institution is only sixteen miles from home. Equipment such as this, however, demands considerable cash. There are two other features of the Smith stable that might very well be duplicated everywhere. The lighting is of the best. Between one-third and one-half of the linear wall length is in window glass and the windows are those little shallow sashes stuck up against the ceiling either. The bottoms are just high enough above the floor that there is no danger of the cattle backing into them or sticking their heads through and they extend right to the ceiling. The smaller sash at the top is on hinges, swinging downwards and inwards. These sashes permit the regulation of the flow of fresh air into the stable. In the centre of the stable there is a large ventilating shaft, which carries the foul air to the roof. "There is none of that foulness in the stable in the morning when you open the door," remarked Mr. Smith, and he further assured me that the stable walls, which are of stone plastered over smoothly with cement, are always dry. These walls are whitewashed as frequently as appearances demand, the ceiling is of matched lumber and painted.



Minnie Paladin Wayne, a Good Three-year-old. She has an R. O. 3L test of 26.84 lbs. of butter in 7 days as a three-year-old. As related by Tom Alfalfa, in the article adjoining, Mr. Smith purchased the grandmother of this cow for \$23 many years ago.

Outside the barn is painted red and with a big cement silo at one corner presents a properly imposing appearance.

The Dairy Herd.

"We have always been dairymen on this farm to quite a considerable extent," said Mr. Smith, when I asked him about his herd. "We started out with Holstein grades about 30 years ago. It is about 25 years since we bought our first pure bred. We didn't put any value on pure bred then and many a time we thought of giving up registering the offspring, but some way or other we held on and now we are mighty glad we did."

I could understand Mr. Smith's satisfaction with their perseverance. If I remember rightly the grade cow which captured the sweepstakes at Guelph a year ago was a purebred from a herd where registration had been neglected. I am told that there are many such herds over Ontario and it would have been a shame if the Smith herd had been added to the list. Mr. Smith told me that he bought his first two-year-old heifer at a sale for \$23 and she was a good one. In fact, she is grand-dam of a young cow now in the herd, Minnie Paladin Wayne, with a Record of Merit test of 26.84 lbs of butter in seven days in her three-year-old form.

The milking herd had just then come to the barnyard from the pasture and I had a chance to look them over. As a whole they were a bunch of fine big cows. A few years ago they promised to make a name for themselves in yearly test work. Now, however, the more convenient seven-day test is being followed exclusively and creditable records have been made. The ability of the herd to produce for long periods is amply proven by the fact that the cows are profitable on a straight commercial basis and

(Continued on page 2.)



This Barn with its Up-to-date Stabling is the Result of Remodelling Old Barns.

The main barn is 100 by 40 feet; the ell, which was an old barn moved up, is 40 x 40. Notice the provision for lighting and the cupolas, connected with shafts to the stable, for ventilation. A coat of paint adds to the appearance and makes the old barn look like new. On the farm of Peter Smith, Perth Co., Ont. All photos courtesy of Mr. Smith.

FARM CHATS

Hen Houses

H. Percy Blanchard, Hants Co., N.S.

ONE of the fascinating thoughts in the field of invention to-day is the evidence of a constant return or rather tendency toward simplicities. We see it in medicine and surgery as well as in the mechanical arts. Not only so but it is from the elements which nature supplies in abundance, that we derive the thousand necessities of our complex present-day civilization. The Prophet Ezekiel voices this thought in its ultimate, when he says that the leaves of the trees were for the healing of the nations. It is complexity evolved itself into the simple life. Platinum, the twentieth century metal, is a product of common clay. Petroleum is a fairy storehouse that imprisons a thousand wonders. Think of using crushed granite or felspar as a real fertilizer. Then there is lime, the godfather of good clover; and clover a nitrogen factory. Some day someone will discover some fool-simple, cheap mixture which will absorb or compound with atmospheric nitrogen just as readily as quick-lime will hydrate—when the due time comes.

We do many unnecessary things, if we only knew it, on our farms. We need to think that arch-gourmand, the hog, would gorge himself to death if he got the chance. To-day, they put his food in a hopper and let him eat till he is ready to quit; and strange to say, he quits in proper time. Wonderful messes used to be mixed and limes set to the minute for feeding poultry. Now, the different foods for the hens go dry each in its own hopper, and not only does the silly hen feed herself, but she does it with more intelligence than her attendant did. The wonderful hot water heated hen house of not so long ago has gone the way of the dodo. Now, a hen house is just an outdoors with a roof on and a shelter from the wind. And now I will tell of what I consider the best, if best is based on results, in the way of hen houses I ever saw.

It was in Cape Breton in the long ago. There was a man, we will call him Mr. K., who had a "small contract" and did a little livery driving. He kept half a dozen horses and they ate a lot of oats. Mr. K. was a man of superior intelligence, in many ways a real genius. When he built his horse barn he did not follow the general example of throwing the manure to the weather, but built a slight lean-to shed to protect it, and this, as it happened, or probably was planned, on the south side of the barn. Several sashes of glass lit the shed, and allowed the sun heat and light to pour in. Nests were fixed to the wall in a convenient place. It was a perfect paradise for the hens. Here they scratched and found oats in plenty; They luxuriated in the sunshine and the warmth from the steaming manure. Outdoors it might be winter or the chilly easterlies of March or April, but for them it was eternal spring. As to eggs, they laid the winter long. There are objections to having hens around a horse stable. There is an argument for the hen-house like the picture in your poultry department, but for a scientifically thought out and designed egg factory, that delivered the goods and at practically no cost for feed, commend me to Mr. K.'s hen house down at Oragdale, C.B., 30 years ago.

Our Frontispiece

ON the front cover of Farm and Dairy this week appears the likeness of "Fen's Owl," Rogue 152914, who heads the Jersey herd at the University of British Columbia. This two-year-old bull was not only champion Jersey bull at the

Vancouver exhibition in 1918, but was also awarded the special prize as grand champion dairy bull over all breeds. He has five direct lines to Spermfield Owl, the greatest sire of producers ever owned in America. His grand-dam and great grand-dam have each produced over 1,000 lbs. of butter in a year. He is one of the greatest Jerseys now owned in Canada and was bred in the New England States.

Philadelphia Quality.

A "dry is told of an old lady who has lived all her life in Walnut Street, as have generations of her family before her. The other day she is said to have consulted a young physician fresh from his honors at the University of Pennsylvania.

"What do you think is the matter with me?" asked the lady.

"I am inclined to think that your blood is not pure, madam. I'll have to give you something to purify it."

"Sir!" said the old lady with dignity, "you are probably not aware that I belong to one of the oldest families in Philadelphia."

The Farmer-Banker Alliance



You go to your lawyer for legal advice; to the doctor for medical advice; why not to The Merchants Bank for financial advice?

If you want a loan to buy cattle, hogs or equipment—if you want information as to how to invest money—come to those who make a business of financial matters, and are in a position to give you sound and impartial advice.

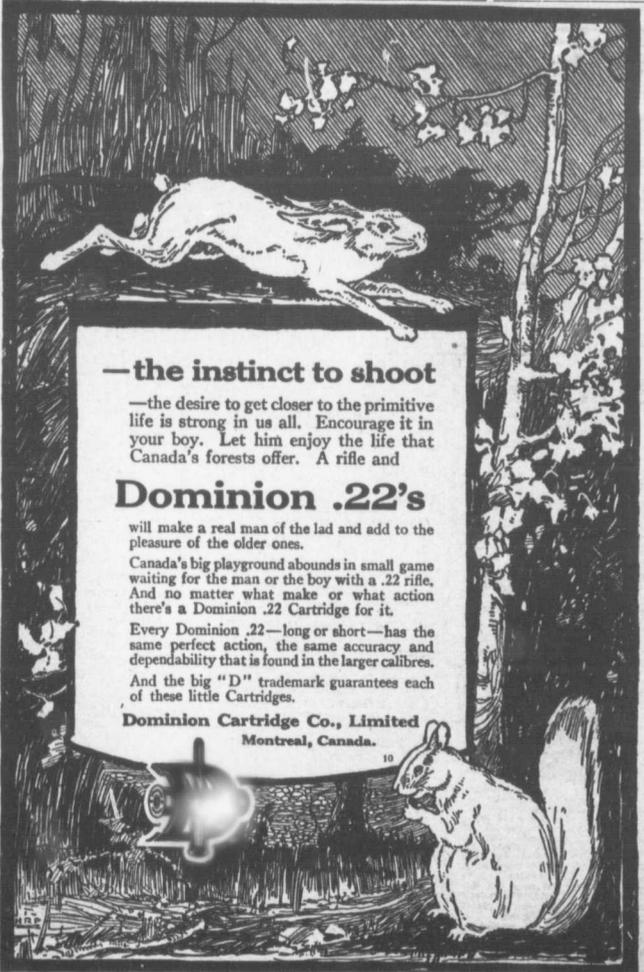
THE MERCHANTS BANK

Head Office: Montreal. OF CANADA. Established 1864.

with its 182 Branches in Ontario, 23 Branches in Quebec, 19 Branches in Manitoba, 21 Branches in Saskatchewan, 13 Branches in Alberta, and 9 Branches in British Columbia serves Rural Canada most effectively.

WRITE OR CALL AT NEAREST BRANCH.

Farm and Dairy stands foursquare against everything that is detrimental to the farmers' interests, and whatever appears in its columns, either advertising or editorial, is guaranteed reliable.



—the instinct to shoot

—the desire to get closer to the primitive life is strong in us all. Encourage it in your boy. Let him enjoy the life that Canada's forests offer. A rifle and

Dominion .22's

will make a real man of the lad and add to the pleasure of the older ones.

Canada's big playground abounds in small game waiting for the man or the boy with a .22 rifle. And no matter what make or what action there's a Dominion .22 Cartridge for it.

Every Dominion .22—long or short—has the same perfect action, the same accuracy and dependability that is found in the larger calibres.

And the big "D" trademark guarantees each of these little Cartridges.

Dominion Cartridge Co., Limited
Montreal, Canada.

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Orchard and Garden

Orchard and Garden Notes

SAVE plenty of seed corn and seed potatoes for next year's planting.

Apples keep well, wrapped in paper and stored in a clean cellar where there are no odors.

Apples will keep better if they are picked carefully from the trees and wrapped immediately in paper and placed in boxes in a cool cellar. Rough handling causes quick decay.

Fall plowing disturbs many insects and weed seeds in the garden, consequently they do not come back next

season. As a rule the land can be used earlier if fall plowed.

It is best to feed liquid manure to plants after they have been watered with clear water, as they are likely to take the liquid manure up too rapidly.

Rutabagas cut in two and hung in the chicken house make good green feed for the chickens during the winter. Mangels, large beets and cabbage are also good.

Fall Plowing—Insect Destruction

LA TE fall plowing is generally recognized as one method of preventing insect injury to crops. It may be well, however, to remind farmers and gardeners that rubbish

left in piles along fence rows or in fence corners or in the orchard or kitchen garden affords one of the best kinds of winter quarters for insect pests in various stages. Trash of this kind should be cleared away, preferably by burning. This will undoubtedly destroy many injurious insects which would lay their eggs in the spring or would complete their development in the spring.

Large numbers of cutworms and other caterpillars which pass the winter in the ground and start into activity in the spring have been parasitized by small flies which sting them and lay in them their eggs. These eggs hatch into tiny worms which live on the juices and substances of the bodies of the immature insects, so

that in the spring, instead of completing their transformation or continuing their growth and their destructive work they perish.

The subject of beneficial insects—for there is a large class of insects that are helpful—is an extensive one and should be more fully discussed among farmers than it is. They should learn, as far as possible, to distinguish their friends in the insect world. Many of the parasites mentioned are so small that they would never be observed by the farmer, but there are many predaceous insects, beetles and others which the farmer should protect. For information, see L. Washburn, division of entomology and economic zoology, University Farm, St. Paul.

Potato Seed Selection

LI KE begets like in the potato field as elsewhere, but judging by the quantities of inferior tubers used for seed purposes, the importance of this law is not appreciated by many. The use of small potatoes taken from the bulk of the crop, year after year, and used for seed will eventually lead to yields of inferior potatoes.

At potato digging time the great opportunity for seed selection is offered. With the product of each plant spread on the soil it is an easy matter to select out those plants that have given the largest yield of the most desirable type of potato and are free from disease. The potatoes from such plants only should be gathered and saved for use as seed the following year. This saving of seed at digging time may seem to many as an extra burden during a rush of work, but it is not.

There is less actual labor attached to seed selection at the time of the potato harvest than there is by practicing any other method of seed selection. Furthermore, the results from seed selection are reasonably certain, as with other methods there is some speculation. Potato growers would do well to watch closely for exceptionally good plants. These harvested and saved apart from the main crop, may become the grand-dads of fine potato fields in the future.

Supplies for Standard Feeds

THE feed situation, according to the Ontario Organization of Resources Committee, is satisfactory. Up to the present time, Assistant Deputy Minister of Agriculture, C. F. Bailey, states that 250 tons of tankage and 5,000 tons of oil meal have been purchased. Options have been taken also on other classes of feed. This feed is purchased for delivery during the months of September, October and November. They will be distributed at central points in the Province and will be sold to mills manufacturing standard dairy cattle and hog feeds in accordance with contracts entered into with the committee.

Great difficulty is being met in securing cotton seed meal in the United States. The price of this meal has been fixed by the United States Food Administration. Early in the summer the committee made arrangements with the Washington authorities to secure 6,000 tons of cotton seed meal, and this shipment will be the only lot of this concentrate that will be allowed to be brought into Canada. Under this arrangement the committee hopes to be able to make its purchases shortly and have a supply on hand when the demand for standard dairy cattle feed commences, which is likely to be about December 1.

Mr. Gordon Waldron has entered an appeal against the fine of \$500 imposed on J. F. Cross, a Brantford Township farmer, for alleged seditious utterances.

"Put Money in thy Purse!"

TO-DAY, Money is Food, Clothing and Arms for our Soldiers in the Field.

Money is the force behind production.

Money is the bedrock on which Canada's tremendous export market stands.

Money is worth more, to-day, to Canada, and to every individual Canadian than ever before in our history.

Guard your money therefore.

Use unusual caution in your purchase of supplies, equipment, improvements.

Hold every dollar ready to answer Canada's call for Funds!

Published under the authority of the Minister of Finance of Canada.

The work that is limited. For grinding other duties, it has no Canadian Fairbanks of the Case Tractor



"Yes, I'll be there to help you. See me work on my farm. I know me. I'm different." FORD MOTOR CO. Distributors



G. S. & M.

The Deaver is a tiresome heavy work tractor for Ontario farms. It operates on all soils and has Waukesha heavy cylinders.

GOULD, SHAPLEY & CO.



THE De Laval Tractors are profitable for profit consumption. For and equipment—dual 11-Horse—4 cylinder—Magnet—dual—11-

THE DE LAVAL

10, 1918.

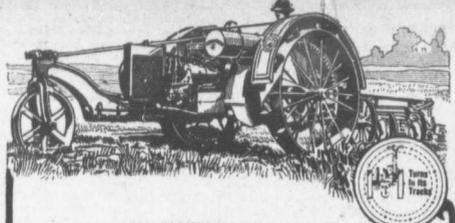
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THE CASE TRACTOR.

The work that the Case is capable of doing on the average farm is almost unlimited. For grinding feed, cutting, pumping, also filling and a hundred and one other duties. It has no peer. A popular model is the famous 10-24 Canadian Fairbanks-Morse Co., Limited, is the Eastern Canada distributor of the Case Tractors.



HAPPY FARMER TRACTOR—12-24 H.P.

Records are not made by luck. "Happy Farmer" has its own reasons for leaving competition behind. One is its remarkable power compared with its light weight (only 3,700 lbs.). It gets no less than 2,000 lbs. draw bar pull, because of the big tractor wheels. "Turns in its own tracks." RINFREW MACHINERY CO., LTD., RENFREW, ONTARIO.

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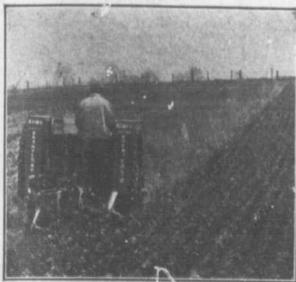
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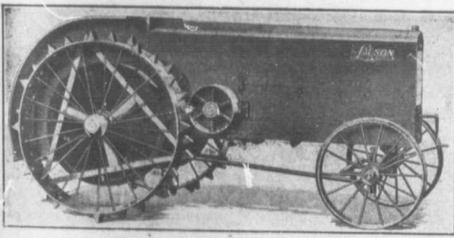
THE FORDSON.

"Yes, I'll be there to do my bit" with the tall plow. See me work on the Experimental Farm. You'll know me—"In different".
FORD MOTOR COMPANY OF CANADA, LTD.
Distributors of Fordson Tractors.



G. S. & M. BEAVER TRACTOR.

The Beaver is a clean cut machine built for continuous heavy work of any kind that is found on the Ontario farm. It operates on kerosene or gasoline and has Waukesha heavy duty tractor motor of four cylinders.
GOLD, SHAPLEY & MUIR, BRANTFORD, ONT.



THE LAUSON—TRACTIVE 15, BELT 25 H.P.

Tractors are profitable only as they give continued satisfactory service on low fuel consumption. For this reason "Lauson" tractors are unexcelled in materials and equipment—dust proof—all gears enclosed of four "Mils" cylinder—valve-in-head Lauson-Beaver. Magneto—Sumter-Dixie. Cashier—Kinston Kerosene. See it and its work at Ottawa.
Distributors for Canada
THE DE LAVAL CO., LIMITED, PETERBOROUGH, ONTARIO.

TRACTORS AT OTTAWA.

The tractors illustrated on this page of Farm and Dairy will be at the big International Plowing Match at Ottawa on October 16, 17, and 18. Farmers of Eastern Canada will do well to make it a special point to examine these carefully.

**To the Farmers
Particularly of
Ontario and Quebec**

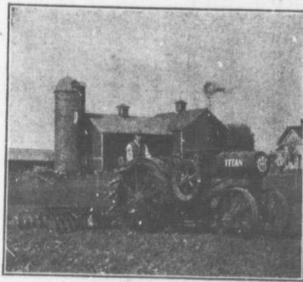
This is a kindly invitation to attend what we believe will be the greatest Tractor Demonstration and Plowing Match ever held in America. With the farm help problem facing us as never before, we specially desire as many farmers as possible to be with us and

**Learn What POWER Will Do
on YOUR Farm**

DATES— OCTOBER 16, 17, 18
Wednesday—Farm Machinery Demonstrations
Thursday—Walking and Riding Plow Competitions
Friday—Tractor and Seed Drilling Competitions
PLACE— DOMINION EXPERIMENTAL FARM, Ottawa, Ontario

RATES—
Special rate of fare and one-third. If over 50 miles, buy a single ticket with certificate, and return fare can be secured at Ottawa for one-third fare plus 25c.
Buy your ticket to Ottawa, where car service every 10 minutes will take you to the Farm.
A programme with list of all prizes gladly sent on request.
Red Cross lunch served on grounds.
PLAN NOW TO ATTEND.

J. LOCKIE WILSON - Managing Director
Parliament Buildings, Toronto, Ontario



THE I. H. C. TRACTOR.

Know the world over, wherever good farm machinery is used. The I. H. C. line of implements covers every operation in every class of farm work. Our different sizes of machines will show you what they can do at Ottawa, October 16th, 17th, and 18th.
INTERNATIONAL HARVESTER CO. OF CANADA, HAMILTON, LIMITED, ONTARIO.



"AVERY 8-16 TRACTOR" PLOWING IN STUBBLE.
Mr. Gordon Plimcombe, of Strathroy, who owns an 8-16 says: "If you have an Avery you have an engine when you want one. It does all the heavy work." Send for catalogue to
R. A. LISTER & CO. (CANADA), LTD., TORONTO.



THE NEVER-SLIP.

The Never Slip creeps on a steel track. It will not pack the soil and is so conveniently handy that it can be turned in its own tracks within an eleven-foot circle. Learn more about it when you are at Ottawa. It is the coming type of tractor.
MONARCH TRACTOR CO., LTD., BRANTFORD, ONTARIO.

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Fertilizers for 1918

(Continued from page 6.)

ing an early delivery. Cooperation in ordering may effect the saving of a considerable amount in purchasing and freight rates.

During the last ten years there has been considerable increase in the number of farmers in British Columbia, Quebec, Ontario and the Maritime provinces using fertilizers, but unfortunately but a small percentage of them have any definite knowledge of the profit that may have resulted from their application. There will always be a degree of uncertainty as regards results from fertilizers, chiefly owing to the fact that seasonal conditions cannot be predicted, but with close observation from carefully planned work, a very great knowledge may be gained as to the kind and amount of fertilizer which will prove profitable. A series of adjacent plots on fairly uniform soil, each with a different

amount of combination of fertilizers and sown to the same crop, furnishes the most reliable means of learning the most profitable application, but if time and labor do not permit of the adoption of this plan, it is better to fertilize, and its yield weighed against that of a similar sized strip on the fertilized area. From the results so obtained the profit or loss from the application of the fertilizer may be readily obtained.

A considerable saving may be usually effected by buying fertilizer in green-manure-nitrate of soda, sulphate of ammonia, superphosphate, basic slag, etc., than by purchasing ready mixed fertilizers, and this course also furnishes valuable information for future guidance obtainable in no other way.

Information and advice regarding the use of fertilizers will be gladly given as far as may be practicable, by the Division of Chemistry, Central Experimental Farm, Ottawa.

Fertilizing Elements of Manure
Prof. Dan H. Jones, Ontario Agricultural College, Guelph.

IN fresh manure the plant food materials are not in as available condition for growing plants as in well rotted manure. In the storing of manure, however, to get it well rotted considerable losses of plant food occur unless the manure pile is properly packed.

If the quickest returns are not wanted following the application of the manure to the soil, then the manure may be added in the fresh condition. If this is done in warm weather the manure should be plowed in as soon as possible after application. The total plant food materials present in the manure will thus be added to the soil, where they will be prepared by the soil bacteria for use by the growing crops.

The main objections to putting fresh manure on the land are: first, it is

not always convenient to do so; second, weed seeds may be numerous in the fresh manure, and consequently a heavy weed crop may be expected; third, its action is not so rapid as in the case of well rotted manure, but it is active over a longer period.

Where manure is to be stored in piles or pits until it is ripened or until it is convenient to use, then the greatest care is necessary to prevent losses of plant food from the manure. In a pile or pit should be impervious to water so that leachings from the pile will not occur. Second, it is well to have a cover of well rotted manure at the bottom. Third, the manure, as it is piled up should be well compacted or tramped down to prevent excess of air from getting into it. Fourth, it should be kept moist, but not wet. These precautions apply more particularly to horse manure, which is loose and comparatively dry. Unless this is kept well packed and moist, it is liable to fangling is certain. This is an oxidation process or fermentation set going by certain species of bacteria in the manure. If cow or pig manure is available it should be mixed with the horse manure in the pile, as these are very wet and compact, and will give a good consistency to the whole mass. Manure so kept will have the minimum of loss and the plant food will be ripened by the various species of bacteria in it, and thus made ready for immediate use by the growing crops when it is added to the soil. The main things to be remembered in storing manure are: first, to prevent leaching; second, to keep it well packed down and moist.

Three Factors that Make Dairying a Success

(Continued from page 3.)

Good Cows to Come Out Even.

Get a cow that will eat a lot of feed and will make the right use of it and there is no reason why we should not run our average production from 3500 to 4500 or 5000 lbs. As I figure it today, you cannot get a cow that will give more than even until you have a cow that will give 6000 and that is long way from the average of Nova Scotia cows. It is possible to get them and that is why we are getting cows that will give 13,000, 15,000 and 15,000 lbs. and we keep a bull from a cow that gave 13,000 lbs. Breeding from this kind of stock, if we stick at it, will work up the average eventually, and we should, as creamery men, encourage the patrons to buy the best, encourage proper feeding, not extravagant feeding. If we work hard at this we should in a few years have an average of 5000 lbs. for our dairy herds.

When we have done this we will be that much nearer the realization of the goal Mr. MacKay set before us and it will mean a very great thing for the farmers and for the creamery men.

Disinfecting Stables

GREAT care and thoroughness should be exercised in cleaning and disinfecting barns and stable yards in which animals with contagious disease have been kept. Such diseases as glanders, anthrax, rabies and, to a lesser degree, tuberculosis, are highly dangerous to man as well as to other animals, and so laxity should be tolerated in cleaning up premises where these and other communicable diseases have been known to exist.

The expense of a thorough disinfection is not large and the equipment needed is simple. The following is a list of the most efficacious disinfectants: chlorid of lime; carbolic acid; mercuric formalin; carbolic acid; creolin; carbolic acid; compound solution of cresol. A pall and the ordinary spraying pump is usually satisfactory for applying solutions of any of the above.—W. H. Feldman.



Selecting

By M. S. SINCE
A good food is so profitable and expensive, farmer to give of the proper select for the best season. Not to use a tractor is the only way by which production can be increased less there are other things the good from them.

Our present situation is not good for two years or so, although the price of hens will be profitable in a year or two. A few yearlings or two are better than a few yearlings or two are.

Over the flock call out the poor layers are usually the best in the season, and quite a long time all the while. They are usually the best in the season, and quite a long time all the while. They are usually the best in the season, and quite a long time all the while. They are usually the best in the season, and quite a long time all the while.

Poultry

By J. E. REMEMBER
Buttermilk will be best for laying hens. Try difference it makes. Are your chickens doing well? If so, these parasites are doing warm weather. The birds from dober that mites live cracks and joints of the hatching places during making these places. Use kerosene or a solution of oil and one once every two weeks and so likely to be had with treatment is good if you are sure to have eggs put down the winter. You will get to sell the fruit during the late fall high price.

Rear Pullets or

IN an experiment, Experimental Farm, Spring of 1917, with the sale of the

Every Country Dweller
CAN NOW ENJOY THE
CONVENIENCES OF THE CITY

Here is electricity for your farm. This reliable NORTHERN ELECTRIC PLANT brings wonderful light and power within reach of every Canadian farmer. Heretofore, electricity has only been possible in the cities—its many advantages have made city life easier, more pleasant and cheerful. Brilliant light at the turn of a switch. You need no longer envy the city home with its electricity.

Northern Electric
Farm Lighting Plant

brings this superior method of safer lighting and cheaper power easily within your reach. With a NORTHERN ELECTRIC LIGHTING PLANT on your farm you have a clean, safe, brilliant light for your house, barn, stables and outbuildings. No unsightly, smelly coal-oil lamps or lanterns to clean or wicks to trim. It will make your home a real home, by reducing domestic and other labors in and around the house.

The name "NORTHERN ELECTRIC" the Makers of the Nation's Telephones, is the guarantee that stands back of this plant; that insures satisfaction in light, power and service. No unnecessary complicated parts have been added; no fundamental has been forgotten to make this Plant one which we can conscientiously recommend to give steady, continuous light without flicker, more power and long, faithful service.

Let us tell you what others are doing with electricity on their farms. Just fill in the coupon and mail it to our nearest office, and receive, without obligation, some interesting literature and facts about electricity on the farm.

BRIGHTEN DARK NIGHTS WITH
"NORTHERN ELECTRIC" LIGHTS

Northern Electric Company

MONTREAL
HALFAX
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To the Northern Electric Company

Please send me full particulars and illustrated literature of the Northern Electric Farm Lighting Plant. FREE.

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Selecting the Layers

By M. A. Gull.

SINCE a good laying hen was never so profitable nor a poor layer so expensive, it behooves every farmer to give due consideration to the proper selection of his layers for next season. Not every farmer is able to use a trap-net, and while this is the only way by which individual production can be determined, nevertheless there are other ways of selecting the good from the poor layers.

Our present state of poultry breeding does not warrant keeping hens over two years old for laying purposes, although the time may come when hens will be profitable producers for four or five years. Owing to the fact that pullets are so much better layers than yearlings the bulk of the farm flock should consist of pullets, a few yearlings being kept as breeders.

Go over the flock of hens now and cull out the poor layers. The best layers are usually those moulting late in the season, and some of them take quite a long time to moult laying all the while. The most active hens are usually the best layers. Hens which are excessively fat are usually poor layers. Handle each hen carefully and examine the pelvic bones which run along each side of the body and approximate each other just below the vent. The farther apart these bones the better is the chance of the hen being a good layer. If they are only a finger's width apart she is not laying. By examining the hens once a month for two or three months the poor layers can be culled out.

The growing stock should be looked upon as the chief source of supply of winter eggs. Observe the chickens from time to time and note particularly those which mature early. Pullets should be in good laying condition by the middle of October but they commence to lay when practically mature so that it is necessary to keep them growing rapidly. Usually those pullets which feather most rapidly make the best layers. When all approaches select the ones that are in good health, with bright red combs and with good width between the pelvic bones, for as laying commences these bones get wider apart. Above all, select healthy vigorous birds.—*Journal of Agriculture.*

Poultry Pointers

By J. E. Bergey.

REMEMBER that sour milk or buttermilk will make excellent feed for both growing chickens or laying hens. Try some and see the difference it makes.

Are your chickens dumplish and not doing well? If so, look out for mites. These parasites are very active during warm weather and will prevent the birds from doing well. Remember that mites live on the roosts, in cracks and joints of the coop or other hiding places during the day. By soaking these places with a liquid kerosene or a solution of four parts kerosene and one part carbolic about once every two weeks, no trouble is likely to be had with them. The same treatment is good in the hen house. Be sure to have all the infertile eggs put down that you need for the winter. You will then be in a position to sell the fresh eggs you get during the late fall and winter for a high price.

Rear Pullets or Buy Them?

An experiment carried on at the Experimental Farm, Ottawa, in the spring of 1917 with Leghorns showed that the sale of the cockerels paid all

expenses for incubation, brooding and feed for themselves and pullets up until the first of September. When the pullets went into winter quarters on November 1st, they had cost over and above what had been paid for the sale of the cockerels just 2.0 cents each. This experiment showed not only that it paid to sell the cockerels early, but it also demonstrated that pullets could be raised much cheaper than they could be bought in the fall.

Why Force the Mout?

POUILITY keepers, lots of them, still cling to the idea that, if hens can be induced to moult early, they will be greater egg producers the succeeding winter. "However, this is not the fact," says Mr. Barto, of Cornell. "A very careful and thorough experiment to test this question was conducted a few years ago at Cornell University Poultry Experiment Station. The method that is used to produce rapid moulting is to starve the flock for about three weeks by cutting the ration to one-third the usual amount and then rapidly increasing the feed to all the birds can be induced to moult. This causes a rather sudden dropping of the old feathers, but the Cornell Experiment Station found that the hens thus treated produced fewer eggs during the fall and winter and at a greater cost per dozen than did the hens fed normally.

"It is better to feed the fowls an abundance of nutritious food, quite rich in protein and fats, during the moulting season, but not to attempt to force the moult by any patent stimulating foods."

British Poultry Rations

THE feeding of live stock in the British Isles since the war has been a difficult problem than the feeding of the British people. This is particularly the case with poultry, which consumes food that may be also used in the human ration. As a result of the stringent reduction in the allotments of food for poultry the hen population of the British Isles has been reduced very appreciably since the last four years. In order to ensure that this reduction will be largely confined to inferior flocks and to maintain the best strains of poultry in the country, the government differentiates in the allowance made according to the quality of the bird.

All of the flocks in the country, so we understand, have been graded according to quality and utility value. In order to obtain a special ration of four ounces per bird per day, half grain and half mash in dry form, fowl are classified into first grade and second grade breeding stock. To come in the first category fowls must be (a) utility-breeding stock for egg production, or of utility quality; (b) pure bred stock; (c) the health of the flock must be high; (d) for a period of at least two years the stock must have been bred to meet the above requirements; (e) the owner of the flock must undertake, in consideration of receiving preferential treatment, to supply the public with hatching eggs, day old chicks and older stock at a cost no greater than his 1917 charges; (f) selective breeding must have been practised in the flock.

Second grade birds will receive rations only after the requirements of the first grade have been satisfied. A certain proportion of the allotted fowls will be reserved for the preservation of the best utility stock of ducks, turkeys and geese. The ultimate working out of this plan, dictated by war time necessity, will be a remarkable improvement in the quality of the poultry of the United Kingdom.

We had the hardest storm Friday that ever has been here. It blew down trees that were never blown down before.—Greenacres Banner.

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The Rural Publishing Company, Ltd.
PETERBORO AND TORONTO

"Read not to contradict and to confute nor to believe and take for granted, but to weigh and consider."—Bacon.

Save the Seed Corn

THE shortage of seed corn last spring compelled thousands of farmers to use seed obtained by the government in the southern states. Many who have used this seed, now profess to be well pleased with the new varieties. "Why, my corn is 14 feet high all over the field," one man informs us and his satisfaction with southern corn is being voiced by many others. The weather this fall has been favorable to the corn crop and, in spite of drawbacks earlier in the season, southern corn will be seen to advantage. Even at that, however, there will be much softilage in the country, and we believe that, in the long run, farm opinion will favor those varieties for the silt that reach a fair degree of maturity. What are prospects of getting seed of these earlier maturing varieties another year? The conclusion of Mr. P. L. Fancher, the Ontario corn specialist, is not reassuring. In a recent circular to Ontario corn growers, he says:

"Every farmer who has good corn fit for seed should save as much of it as possible. There will not be enough seed corn in Ontario this year to meet the demand, if every ear fit for seed is saved. The demand for Ontario seed will warrant extra care this fall."

Mr. Fancher is probably not overstating the gravity of the situation. There is not more than eighty per cent of the normal acreage of corn planted in the seed producing area of Ontario, and only about twenty-five per cent of this eighty per cent is from Ontario seed; and of the seed produced from Ontario varieties, quite a large amount will be required for seed in the counties where it is grown. In order to insure a plentiful seed supply of these varieties in the southwestern Ontario for next year's crop, the Federal Government has extended its Order-in-Council prohibiting the export of seed corn from these counties to be effective until November 1st, 1918. This will enable corn growers in the seed corn areas to secure a sufficient quantity of good seed for their own use. For the benefit of farmers outside the corn belt and

FARM AND DAIRY

also for their own profit, it is hoped that all corn of suitable varieties, fit for seed, will be preserved for the use of farmers in the ensilage districts next season.

When Exemption Expires

ATTENTION is directed to an announcement of the Military Service Branch published elsewhere in this issue of Farm and Dairy. The Branch requests that all members of Class I, possessing equipment as farmers, whose exemptions are expiring and who wish to remain exempt, should communicate with the registrars under the Military Service Act of their respective districts, requesting an extension in time of such exemptions. Questionnaires will thereupon be issued to these men by the registrar and they will receive further exemption upon furnishing satisfactory proof that they are contributing sufficiently to the national food supply. The seriousness of the food outlook and the favorable turn of affairs in France, will probably be conducive to leniency in dealing with extension of exemptions to food producers.

The announcement carries an important provision regarding employment for exempted men. Last winter military exemptions required that the men exempted be continuously employed at farm work. This robbed several essential industries, of which the principal was lumbering, of one source of man power on which they had been accustomed to place a large dependence. It is stated that there were thousands of young men only partially employed on their farms during the winter but who could not leave without endangering their exemption. Provision is now made for such cases. Men who wish to take up other employment during the winter may apply to the registrars for permits to engage during the cold months in occupations of national interest, such as lumbering and munition work. The military authorities are to be commended on the wisdom of this provision.

Pure Bred Stock for Britain

THIS continent is about to make its first shipment of pure-bred stock from the New World to the Old. Mr. Geo. Lane, of Alberta, said to be the largest owner of pure-bred horses in the world, has recently started a Percheron stallion and twenty-six Percheron mares from his Alberta ranch on the way to Europe. These animals were purchased by the Hon. Alexander Parker of Warwick, England. Mr. Parker, who was in charge of the purchasing department of the British Government at the outbreak of the war, visited Mr. Lane's ranches in 1914, and the present purchase was a result of his visit. The selection of stock was made for Mr. Parker by Mr. Lane, Prof. Cayley, who will accompany the shipment to England, and Dr. J. G. Rutherford.

It is this beginning of a similar trade of large proportions in all kinds of pure-bred live stock in Farm and Dairy would not like to be too definite in basing a forecast of the future on a single business transaction such as this one. English farmers have not been favorable to the Percheron breed, and if an individual estate owner, such as Mr. Parker, desires to start a stud now, he would have to come to this continent, as breeding stock is not being shipped from France. It is a greater demand for Percherons and a considerable variety may develop. For the same reason there will be a great demand for American Holsteins when they are permitted to freely enter Great Britain. The Holstein stocks of the Old Country are exceedingly limited and not of the highest quality. At the same time, it is well to remember that the British stockmen are still large exporters of pedigree stock, including Clydesdale and Shire horses, Ayrshire cattle, and all the beef breeds, sheep and swine. With such a surplus for export, it would seem that British farms are not yet depleted of their live stock. That there is a great depletion of breeding stock, taking Europe as a whole, we have every reason to believe. The greatest demand for breeding stock after the war, will come from continental Europe, and it is to supply this demand that Canadian farmers will be well advised to carry their breeding stock as near to normal strength as possible.

The World's Food Situation

THERE seems to be a very general impression abroad, both in city and country, that the food crisis is past. Future prodigious efforts in production and stringent conservation are regarded as not now so necessary as in the past few years. This attitude is traceable largely to an unfortunate statement made a few months ago, by Mr. Hoover, to the effect that the food crisis is past, and, further, to the more recent easing up on bacon restrictions on the part of both the Canadian and United States Food administrations. As a matter of fact, all evidence points to the necessity for even greater effort in agricultural production than in the past few years, if that be possible, and for a more stringent conservation of food, which should be easily possible.

The most disquieting factor, from an allied standpoint, is our lack of a food reserve. There is probably enough food on hand to feed ourselves and the allies until next harvest, and that is what Mr. Hoover meant when he said the crisis was past. But what if crops next year are shorter than this year? The situation is not secure enough to allow us to feel at all easy. In fact, the present outlook is for a decreased acreage in America next year, as many more men will be drafted from the land in both United States and Canada before another crop season opens up. On the whole, too, American crops were good this past year and the average production high. There is nothing in these factors to encourage the idea that the food situation is nicely solved for now and years to come.

Another obligation may devolve on the food producers of this continent. Food Controller Thomas, in an address at Montreal, recently, stated that more people will die in Russia during the coming winter than have died there since the war began—and they will die of starvation. The situation in Poland, which is now a neutral, is not much better. Many will contend that the Russian people are alone responsible for their pitiable condition and that the Bulgarians, as recent active enemies, need cause as even less concern. Such logic would be creditable to "kultur" but as Christians we cannot see these people starve if it is within our power to help them. The world's food situation in all truth is serious enough to demand every form of assistance, legislation and otherwise, that will encourage and aid the farmer in keeping his food production at a maximum.

Canada at the National

THE great event of the show season from a dairyman's standpoint is the National Dairy Show at Columbus, Ohio. The "National" now holds the same relation to the dairy industry that the International at Chicago holds to the other branches of the live stock world. At the latter fair, Canadian breeders of beef cattle, horses and sheep have exhibited continuously and always with marked success, adding fresh laurels each year to Canada's reputation as a live stock country. Our dairy industry, on the other hand, has been represented only twice at the National, once by R. R. Ness with his Ayrshires and another time by R. J. Fleming with his Jerseys.

This year, again, Canada promises to be well represented. In a recent letter to Farm and Dairy, Mr. R. R. Ness tells us that he has just shipped eighteen head of his Ayrshires to Columbus, and that Mr. Gilbert McMillan, of Huntington, is shipping his head B. H. Bull & Sons, of Brampton, shipped twenty Jerseys to the National Dairy Show on October 4th. Mr. Bailey, of Oak Park Stock Farm, had planned to take his Holsteins across, but recent developments at home have made it impossible for him to carry out his intentions. This is regrettable as many would like to have seen the Oak Park herd, Lakeview Dutchland Hengerveld, so far as is concerned in the Canadian show ring, come into competition with Oak DeKorf Ohio Holsteins, the champion Holstein bull of the United States. Recently we have heard a rumor to the effect that Mr. A. E. Hulet of Norwich, may have some Canadian Holsteins at Columbus. Canadian breeders generally will wish these men all success at the National Dairy Show. The trip is an expensive one under existing conditions and the whole dairy cattle breeding industry of Canada stands to profit by their endeavor.

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Letters to

Dairy

EDITOR, FARM AND DAIRY:
Marsh's letter in Farm and Dairy, August issue, in which you state that I never could win the dairy be cream value of the Marsh says in a paper was placed in the Marsh. The \$50 would be the cost of the crops; the crops more and they against the dairy "law-off" and bookkeeping, receipts and correct the cost of crops not, as a rule, and has to be given, in any case, it would be able to debit the of hauling it out, necessarily, which prevents keeping books at all. It is difficult government official connection of Agriculture "Farmer would obtain his wages and gave quoted by Mr. M. often heard city similar remark—that is quite true—and, I think, Agriculture office if any farmer parent in his labor, he would farm either in a tax sale. We in this district row—often more getting more skilled occupations.

While I am to comment on "Company Farmer" say that the "sources Committee" moved to move meaning the way farm by towns and cities. This committee means go about it could possibly be industry would Canada to have men go in for it is true it probably lots of know a whole lot of producing food and there would be expecting, and milk, potatoes, in many cases, production. I t turning numbers a certain number obliged by law, in proportion to the plays. Prices would soon go Deep Creek Farm

Terrible Conditions Confront Belgian Children

SUFFERING is the lot of the children of Belgium. Pale, emaciated, racked with pain and weak from hunger, mere ghosts of the children of pre-war days, roam about the streets of the occupied towns, pleading piteously for bread. In dark, cold cellars little tots seek shelter from the inclement weather and often death kindly intervenes to relieve the famished little ones lying curled up in these miserable shelters, and the one who died for want of food provides a repast—for the rat!

There are no words to paint the horrors impending over the heads of more than a million Belgian children. Like hunted things they avoid the light of day, never will tell their anguish, and what they have suffered history must feel the reproach of such things being possible in the twentieth century. In Belgium the gift of life has come to be regarded only as a legacy of pain. The children of Belgium cling to life with a passion, for they have heard their parents say all will be well, and there will be sufficient food when menace of starvation and disease is omnipresent. Canadians all in pain, and these terrible conditions by contributing promptly and generously to the Belgian Relief Fund. Subscriptions should be sent to the local committee of the Fund or to the Central Committee at 58 St. Peter Street, Montreal, Que.

Letters to the Editor

Dairy Accounting

EDITOR, Farm and Dairy.—Mr. Marsh's letter on "The Value of Farm Manure" in your issue of August 29th, raises a question which I never could understand. Why should the dairy be credited with the alleged value of the manure, which, Mr. Marsh says in a previous issue of your paper, was placed at \$50 per animal? This \$50 would be debited against the crops; the crops cost just that much more and they are in turn charged against the dairy—so it is only a "see-saw" and results in unnecessary bookkeeping, swelling the dairy receipts and correspondingly swelling the cost of crops. This manure could not, as a rule, be sold for anything and has to be got out of the way in any case. It would be just as reasonable to debit the dairy with the cost of hauling it away. It is this unnecessary, complicated bookkeeping which prevents many farmers from keeping books at all.

It is difficult to believe that any government official (presumably an official connected with the Department of Agriculture) ever said that "Farmers would have no trouble in obtaining help if they paid decent wages and gave reasonable hours," as quoted by Mr. Marsh, though I have often heard city people make a very similar remark. Every farmer knows that is quite true—and every farmer—and, I think, every Department of Agriculture official—also knows that if any farmer paid the wages per hour current in his district for skilled labor, he would very soon have his farm either in a mortgage sale or in a tax sale. Wages for skilled labor in this district run from 75c to \$1 per hour—often more—and farm work is getting more and more every year a skilled occupation.

While I am about it, I should like to comment on your editorial on "Company Farming," in which you say that the "Organization of Resources Committee" will be well advised to move cautiously in recommending the wide adoption of company farming by business men in our towns and cities. I say, more power to this committee; let them by all means go ahead. The best thing that could possibly happen to the farming industry would be for every city in Canada to have its quota of business men so in for community farming. It is true they would lose money—probably lots of it—but they would know a whole lot more about the cost of producing food than they do now, and there would be far fewer people expecting, and even insisting upon, milk, potatoes, etc., etc., being sold at, in many cases, less than the cost of production. I think every manufacturing concern employing more than a certain number of men should be obliged by law to operate a farm in proportion to the number of its employees. Prices of farm produce would soon go up.—Chas. E. Hope, Deep Creek Farm, Langley Fort, B.C.

Gravel Roads the Best

EDITOR, Farm and Dairy.—We hear much nowadays from motor leagues and such like regarding the building of concrete roads in rural Ontario. To read the opinions of the people one would be led to believe that Ontario rural roads are about the poorest in North America, and that the township council is the most inefficient public body in the country. In this connection I would like to call attention to an item that appeared in the London Free Press a few days ago:—

"That the roads of Western Ontario are better than those of Michigan is the opinion of County Engineer Charles Talbot after spending his holidays across the border. While away he motored through many sections of Michigan, studying the conditions of the different types of roadbeds. There is nothing in the way of construction that will compare with a properly maintained gravel road, Mr. Talbot thinks. Aside from the fact that the gravel road is cheaper to construct than the concrete, in his opinion, it is far superior for county construction. There is only one condition, and that is the proper maintenance of the gravel system. The roads in Western Ontario are generally kept in first-class condition, he discovered. Mr. Talbot says he is well satisfied with conditions as he finds them here in comparison to other places."

Commenting in turn on this item our own local paper, the Forest Free Press, published the following piece of common sense:

"Motorists from Michigan and other States, who are in the Forest every day on their way through Ontario, frequently say that the roads in this section are the best they travel over. This is due, principally, to the excellent public service rendered by our township councils. No body of public men anywhere spend the people's money as judiciously, as economically and as profitably as does the average township council. If our higher bodies of public trustees exercised the same care in the expenditure of public funds our national and provincial balance sheets would make a far better showing. There is no form of taxation so beneficial to municipal taxation, so strange to say, it is the people make the most complaints about."

To all this I say, Hear, Hear! We farmers must fight every effort made to centralize taxation and spending power in the government at Toronto. The nearer home the tax is handled the less graft there will be. Taxes are increasing at an awful rate and due largely to extra burdens imposed on us by outside authority. We must put an end to H.—C. L. B., Lambton Co., Ont.

The Newest Way.

"How's politics?"

"Looking up." Three gentlemen candidates are doing my reaping for me and a couple of lay candidates are helping mother put up preserves."—Kansas City Journal.

Dividend Announcement

WAR conditions, with the added strain imposed on the funds of Life Insurance Companies through increased death claims, depreciation in the value of investment securities, etc., have set many policyholders wondering what the effect may be on the dividends payable under their policies.

It is with much gratification that the Directors of this Company inform the policyholders that the financial strength of the Company is such that, after making due provision for the added responsibilities arising out of the war, dividends may still be safely paid to policyholders on the same liberal scale as heretofore. It will, therefore, be a welcome announcement to the policyholders of the Company that, during the coming year, they will receive dividends on the same basis as in the past.

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WHERE there is no hop, there is no endeavor.

The Blue Checkered Apron

DOROTHY DONNEL CALHOUN.—The Farmer's Wife.

"W^HOOLA, Dolly, who-ol!"

Pa gave the reins a reminding twitch and the old horse ambled to an obedient standstill in front of the barn door. The necessity of "who-ling" Dolly had departed with a remote frisky collihood. Pa still said it, indeed he did not know that the "colt" had long ago grown to be an old horse with graying hair and scanty mane.

As he clambered stiffly out over the edge of the pung into the snowy yard, the mild flurry of excitement in his heart contradicted the twinges in his legs and the protesting creaks in his old joints in the cold. In the midst of his unharassing in the hay-wagon gloom of the barn his fingers often sought the corner of the stiff white envelope protruding from his great-ot pocket as if warming themselves on it.

"Land a-livin', Dolly," chuckled Pa softly into the good friendly ear nearest him, "ain't we brought home a surprise to Ma, you'n me? To think we drove down town after a pound o' coffee and a yeast cake and come back with this!"

Jubilantly Pa's lips puckered into whistling trim. The shrill cracked joyousness of "Marching through Georgia" trailed happily across the snowy duck of the yard to Ma who was watching in the kitchen window. Pa always marched through Georgia when something pleased him.

In the wake of the sound came Pa himself, shuffling the snow from his boots in cheerful stamp upon the floor of the porch. A warm whiff of good oven-odors hurried to meet him at the door—a hint of mince pies, a promise of chicken stew—and with them Ma, wiping her hands on her blue gingham apron in a plump little whirl of curiosity.

"Something's happened—you needn't tell me, Peter Potts!" she clamored, mildly insistent. "I guess I know the happening sound o' that waddle after he's married to it goin' on forty years."

Pa lingered pleasurably on the ragged edge of his news, making a great task of struffing out of his overcoat and knitted muffler. "I see Miss Piper in the post office," he remarked gulfingly. "She wanted I should tell you there was goin' to be a meetin' of the Ladies Aid to her house come Thursday and to be sure to get down to it. The minister was shovelling off the front piazza of the parsonage when I drove by. The Carney young ones and Lou Tibbitt's has cleared off part of the duck pond on the common, an'—"

"Peter Potts!" Ma's tone held gentle exasperation. She reached up on tiptoe and cut off Pa's flow of news with a firm hand. "Now tell me."

Pa's fingers, fumbling obediently in the cavern of his overcoat pocket, emerged with the square white envelope. Solemnly he held it out to Ma. Solemnly her water-reddened fingers came to meet it.

"It—it isn't? Pa, I'm afraid to look!"

"Good news don't bite, Ma."

Across the odoriferous kitchen the fussy hissing of the teakettle and the saucapan lids hobbling over the fire shamed the friendly little silences with the drip, drip of the melting snow on the eaves outside. Suddenly Ma's hands shook her apron strings, untying them jerkily.

"I've been wearing a blue-checked apron for forty years," she said slowly. "Now I guess it's high time I took it off."

She smoothed out the strings with



A Little Beauty and His Owner's Joy.

—Photo by E. McConnell, Norfolk Co., Ont.

absent care and folded them primly, ceremoniously. At the same time she seemed to have untied the forty years of wearing it.

Suddenly she drew a long breath. "I'm goin' to wear my second-best alpaca every day from now on," she cried radiantly, "and I'll get me a new bunnit for meeting. Pa! Pa! I feel if I could be a better Methodist in a velvet bunnit with a bunch o' pink roses on." She laughed up at Pa in trembling excitement. "We said when I got to ten thousand we'd stop savin' and scrimpin' and start in livin'." We set that as our stent, you remember, Pa?"

Peter Potts nodded, his eyes vague with recollection. It had been a long time since they had gloated together over the first tiny entry in the blue bank book in Ma's hand.

The figure had stood across its waiting pages by slow stages. It is not easy to wring ten thousand dollars from a rocky little farm and a small carpenter's shop. In the wringing, Pa's back had grown bent and Ma's fingers housework-calloused. But now their stent was finished. Pa nodded solemnly down at Ma.

"We'll retire from business, you'n me, Ma. We've earned the right to a little pleasin' if anybody has, I guess. I've done my last job carpentering—you've baked your last pie—"

"Land!" Ma dropped the precious

letter on the table in a panic of haste and hurried onward with agitated steps, catching up the blue gingham apron as she went. A pleasant unburned smell oozed reassuringly out into the room and the tense anxiety of Ma's face relaxed into relief.

"It doesn't pay to take your mind off the oven, when there's pies in it," sighed Ma self-prophetically. "I hope the maid'll remember that. You needn't laugh, Peter Potts, I guess I c'n call her the maid if I want to. It sounds more folksy-like than plain 'hired girl'."

Pa Potts was not laughing. Instead he stooped down awkwardly over de-fiant little Ma and in a clumsy unaccustomed fashion kissed her on her cheek. The kiss surprised and embarrassed them both, lingering in the lamp-bright kitchen like a pleasant unfamiliar presence. In New England, a kiss is an event.

"Land sakes, Pa!" breathed Ma in soft amazement.

Forty years ago Peter had kissed her, over the first entry in the little blue bank book. She looked up at him now in queer middle-aged shyness, gently near-sighted, to his head spot and the crook in his shoulders from carpentering. Then hastily she veered from the dangerous edge of sentiment, bustling across the room to the stove with brisk rattling of saucapan lids and pots.

"Mis' Deacon Clark was tellin' Sunday, about a likely girl from round Ragged Hill district that wanted to

apron," sighed Ma later, in the dim primness of the tiny front parlor, where she and Pa were sitting "like folks" in the strange luxury of idleness.

Pa, stiffly erect on the uneasy edge of the hatched sofa beneath the crayney eyes of a grim row of ancestors in black walnut frames, looked up from Fox's Book of Martyrs with obvious relish of the starched splendor of a white shirt bosom chafed his chin unaccustomedly and his humble old shoulders sagged abashed beneath the broadcloth dignity of his "Prince Albert" coat.

"I don't know why 'tis," pondered Pa over his Martyrs, "but a starched bosom always sort o' rasps my mind. Likely I'm not educated up to 'em yet."

"You'll get used to 'em, Pa, gradual," nodded Ma across the marble-topped table.

She crept to and fro in the red plush rocker, looking down at the ample folds of the second-best alpaca with innocent elation. Being a woman, already Ma was wadd to dressing up. The crowd of her Sunday clothes. "I been thinking, Peter," a purplish wisdomfulness of appeal lurked in Ma's voice, "it's real nice, isn't it, that little Joey'll have a chance now to be prodded by his starched alpaca."

"Yes, Ma, yes. 'Tis nice."

The rocker totted up its creaking again, with reminiscent pauses between jolts. Over the dish pans in the kitchen a sudden splash broke startlingly into the doxology above the rattling of cups and saucers.

Pa and Ma Potts looked out across the snow-rimmed landscape beyond the parter window, a sudden parental look on their gentle old faces. It at most seemed as though they were watching a sturdy little figure toiling with joyous legs up the white slope of the pasture, dragging a sled behind him.

The names, Pa and Ma, had lately belonged to them only four days; but they fitted so well that they had stayed behind after the fobble being who had thus graced them had waddled his last tiny protest against the discomferts of life. Some people are born Pa's and Ma's. The pity of it that they are not always the ones to have children!

Often Ma had found a gingerbread horse or soldier growing under her hands on her moulding board and hidden it in guilty haste lest Pa should come in and discover her making it; and across the cobwebbed rafters of the shop, Pa had hidden a clumsy little sled fashioned in his old moments, fearful lest Ma should see.

"Har-r-rk from th' To-o-om," sang Gussie piercingly in the kitchen, "a do-oleful so-und—!" Closely following the hymn came a crash of crockery. The hymn trailed off into apprehensive silence.

"Gussie," wailed Ma, "Gussie, what've you broke?"

"Nothin', Mis' Potts," Gussie's tons were reassured. "Nuthin' but a mention 'cept just a teapot. Don't you fret yourself none, Mis' Potts."

Herocally Ma sat back in the embrace of the red plush rocker, gripping the arms, her lips set firmly in a straight line as one determined to enjoy herself no matter what happens. At that moment Ma, too, would have sympathized with the martyrs. "I was married with that teapot," she sighed, mildly uncomplaining, "but it ain't her fault no more. Liked it if it a been named Gussie I sh'd broke P myself, long ago!"

In the days that followed, Ma tried to get accustomed to her hands. She was not accustomed with them in their inactivity in the fire. The appling, darning and baking they had never learned the trick of folding themselves; and now it was too late—sixty is too late to begin to learn idleness.

(Continued next week.)

The Up

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The Upward Look

Thankfulness

Thou crownest the year with Thy goodness.—Ps. 65, 11.

O Lord of heaven and earth and sea,
To Thee all praise and glory be,
How can we show our love to Thee,
Who givest all.

—C. Wordsworth.

I HAVE heard or read somewhere the story of a poor woman who, before partaking of her humble meal of a crust of bread and water, lifted her heart to God in thanksgiving saying, "Lord I thank Thee that I have all this and Christ." That may only be a story, but it illustrates my point, that that woman showed the true spirit of thankfulness, and recognized God as the Giver of all. Do you say she was poor. Nay my friend she was rich; rich with the illimitable riches of Him who created the heavens and the earth, rich with His riches who says, "The silver is mine, and the gold is mine, every beast of the forest is mine, and the cattle upon a thousand hills." That is what the woman was thankful for, she rested on the assurance that "He that spared not His own Son, but delivered him up for us all, how shall he not with Him freely give us all things."

Many of our readers will recall that passage in "The Pilgrim's Progress" where Christiana and her family were being shown by the Interpreter through his house. Conducting them into a room where there were a hen and chickens he "bid them observe awhile. So one of the chickens went to the trough to drink and every time she drank she lifted up her head and her eyes towards heaven. 'See,' said he, 'what this little chick doth and learn of her to acknowledge whence your mercies come by receiving them with looking up.'"

Nothing, we are convinced, of all the Christian graces and attributes is so pleasing in the divine sight as just this gift of thankfulness, the acknowledgment of our Heavenly Father's goodness in all the affairs of life. Too prone are we all to take many of life's best gifts just as "common" mercies to be taken as a matter of course, forgetting to return thanks, and it sometimes takes the chastening hand of the Lord to bring us to a sense of His goodness. How often we have seen that only when sickness has laid its hand upon us have the blessings of health been appreciated, and when through a long night we have tossed restlessly and in pain did we realize the inestimable gift of God in granting us the common blessing of sleep.

What would a blind man not give to behold the beauty of the woods at this Thanksgiving season, to gaze on the flowers and the fruit, the pleasant valleys and the sweet flowing rivers of our land, and these we daily see. I have read that if a man born blind was to be granted the gift of sight used for just one hour, and that on first opening his eyes he should behold the sun in its glory, either at its rising or setting, he would be so transported with joy at the wonder of it that he would not willingly take his eyes from it to behold any of the other beauties of the world. And yet this one and many like blessings we daily enjoy.

Why do you think was David called in the Scripture the "Man after God's own heart." Principally, I believe, on account of his thankfulness. Though he committed some of the most deadly of sins, yet his pains so abound in confession of his sins and unworthiness and thankfulness for God's pardon and mercies, that God Himself accounted him a man after His own heart!

If there are any hearts in the world today that should swell with a song of gratitude and thanksgiving at the time it is those of ours in Canada. While other lands have suffered all

the horrors of war, and more people have died of starvation in Europe than by battle, we have been spared these horrors. The foot of the woman has never trod on our shores and not one man, woman or child in our fair dominion need go hungry. And once again from our shores we can say: "Thou crownest the year with Thy goodness and Thy paths drop fatness. The pastures are clothed with flocks, the valleys also are covered with corn." Let us make this a real season of thanksgiving this year, not only for the material blessings of life, great and wonderful as they are, but for the wonderful riches which include all others prepared for us by the grace of God in Christ Jesus.

God's free mercy streameth
Over all the world.
And His banner gleameth
Everywhere unfurled.
Broad and deep and glorious
As the heavens above,
Shines in might victorious,
His eternal love.

"What shall I render unto the Lord for all His benefits towards me? I will take the cup of salvation and call upon the name of the Lord."

—J. H. H.

A Song by the Way

By J. M. Hunter.

HO, comrades, heavenward faring,
Along life's narrow way,
Let's rest beside the highway
And sing a song to-day,
A song of glad thanksgiving,
And filled with hope and cheer,
For all God's wondrous blessings
And kindness to us here.

Oh, let us thank Him, comrades,
For sunshine and for rain;
He crowns the year with goodness
In stores of golden grain.
And the dawn of peace is breaking
In answer to our prayer,
And victory is coming
To crown our arms "over there."

Lift up your eyes, my comrades,
God's goodness to behold;
Behind the clouds there's sunshine,
Beyond the grey there's gold.
Let's sing of all the mercies
He giveth us each day,
And as we sing about them
The shadows flee away.

Bulbs for Indoor Blooming

SEPTEMBER and early October is the time to pot bulbs for early indoor blooming. Hyacinths, tulips, narcissus and jonquils are best suited for this purpose. A good soil for potting bulbs is composed of one-half part well decomposed turfy loam, the remainder well rotted stable manure, leaf mould and sand. These should be well mixed together.

The size of the pot depends on the size of the bulbs and upon the effects desired. As a general rule, for a six inch hyacinth, a 5-inch pot should be used. For tulips and narcissus a 4-inch pot is large enough, the size increasing with the number of bulbs. In potting place a piece of broken pot or some coarse ashes over the hole in the bottom to secure drainage. Fill the pots half full of soil, set the bulbs so that the tops are at least one inch below the rim, cover them with soil and press it firmly around the bulbs, leaving at least one-half inch space at the top for water. After all have been potted and labeled they should be well watered and placed out of doors, with the pots close together. Nail a board frame around them and cover with six inches of ashes or sand. Leave them there for about six or eight weeks. Then make an examination to see if roots are well developed.

If so, remove the pots to a cold frame, shed, attic, or cool cellar in a temperature from 45 to 50 degrees, and water them well.

MAKES THE WHITEST LIGHTS

ROYAL YEAST CAKES

Has been Canada's favorite yeast for over a quarter of a century. Bread baked with Royal Yeast will keep fresh and moist longer than that made with any other, so that a full week's supply can easily be made at one baking, and the last loaf will be just as good as the first.

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Knit Socks and Dollars with the Auto Knitter

Profitable employment at home in war or peace time



Socks—no more socks—the Soldiers' call! The hosiery industry is booming and the demand far exceeds the supply. Help us fill it but get away from slow hand knitting. Use the fast, reliable, modern Auto Knitter. We gladly take all the socks you wish to send us and pay you highly profitable prices.

The Auto Knitter is simple and easily learned— and secures a big income for full or spare time work right in your own home and no previous experience is essential. Money you and your family can earn at home besides doing patriotic work.

Auto Knitter Hosiery (Can.) Co., Limited, Dept 3818 607 College St., Toronto.

DIED OF STARVATION

Died of Starvation

Many a Belgian mother could have these words engraved on her child's gravestone—"Died of Starvation".

Perhaps the child has wasted away with Consumption, or has been twisted into a mockery of happy childhood by Rickets, but starvation is at the root of the tragedy.

What else can be expected for a growing child whose daily ration is the bowl of soup and two pieces of bread provided by the United States loans to the Belgian Government?

The only hope for the destitute children of Belgium is that we who can afford three meals a day will be moved to pity and send help immediately. Even a small contribution will help to take some child, sinking under its load of trouble, over to Holland, where with good milk, nutritious food, medical care and loving treatment, he or she may regain health, strength and the wish to live.

GIVE—give until you feel the pinch! Don't wait until someone asks you personally. THIS is personal!

Make cheques payable and send contributions to

Belgian Relief Fund

(Registered under the War Charities Act)

to your Local Committee, or to

Headquarters: 59 St. Peter St., Montreal.

CREAM WANTED

From 2,000 Cheese Factory Patrons

for the Fall and Winter months. We sell our butter direct to the trade. No middleman's profits. That is one reason why our price is always the highest. There are others. Make us prove it.

Write for free cans when ready to ship.

Valley Creamery of Ottawa, Limited
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Canada Food Board License No. 7-342



Be Sure of Your Weight

Be certain the goods you buy and sell are correct weight. Mistakes are always possible but accurate weight is assured by

Fairbanks Union Scales

They save their cost every year by eliminating short weights in buying and overweights in selling. They are the most convenient size scales for general light weighing anywhere. They replace the old time spring balance scales condemned by the Canadian Government.

Complete with tin scoop, 10 1/2" x 13 1/2" platform, single brass beams and extra weights. The scoop capacity of Fairbanks Union Scales is 30 pounds with half ounces—the platform, 240 pounds by quarter pounds.

They are strong, compact, simple and guaranteed absolutely accurate.

Write our nearest branch for information and prices of scales for any weighing purpose.

The Canadian Fairbanks-Morse Co.,

Limited.

St. John Quebec Montreal Ottawa Toronto
Hamilton Windsor Winnipeg Calgary
Saskatoon Vancouver Victoria

71

THERE IS ONE BOOK

That we would like to sell in the house of every dairy farmer in Canada. It covers every subject in dairying, from growing the feed—to testing your herd. The price of the book could be saved in two weeks' time from the economical feeding methods outlined in it. "DAIRY FARMING," by Eckles & Warren, tells how to balance the feed—what feeds to buy when prices are high—the cheapest feeds to grow on your own farm—and a score of other subjects. It is a very readable book for the practical farmer. Well bound in linen.

Price is but \$1.50.

Book Dept.

FARM & DAIRY

Peterboro, Ont.

Training the Children

No. 7

A Parable of a Prodigal Father

THE moral of the following "parable" will be readily apparent to all who read it. It simply is, "Make a friend of your child while there is time." Every boy and every girl needs help, guidance and encouragement, and who is so fitted to impart this as the father or mother of a child. He or she who cannot find this help at home, he will find it elsewhere, by ways and from those you know not of. Take him into your confidence in all that concerns his personal welfare. Enter into his joys and be ready with your sympathy and advice in his sorrows. Fortunate indeed is the boy or girl who has in father or mother a real confidant and friend, and safe is he from many of the pitfalls of life. Such is the lesson that the parable of a prodigal father teaches.

A certain man had two sons, and the younger of them said to his father, "Father, give me the portion of thy time, and thy attention and thy companionship, and thy counsel which falleth to me." And he divided unto them his living in that he paid the boy's bills, and sent him to a select preparatory school, and to dancing school, and to college and tried to believe that he was doing his full duty by the boy.

And not many days after, the father gathered all his interests and aspirations and ambitions and took his journey into a far country, into a land of stocks and bonds and securities and other things which do not interest a boy; and there he wasted his precious opportunity of being a chum to his own son. And when he had spent the very best of his life and had gained money but had failed to find acquaintance, there arose a mighty famine in his heart; and he began to be in want of sympathy and real companionship. And he went and joined himself to one of the clubs of the country, and they elected him chairman of House Committee and President of the Club and sent him to Parliament. And he would fain have satisfied himself with the hooks that other men did eat and no man gave unto him any real friendship.

But when he came to himself, he said: "How many men of my acquaintance have boys whom they understand and who understand them, who talk about their boys and seem perfectly happy in the comradeship of their sons, and I perish here with heart hunger? I wish to be a chum to my son and will say unto him, Son, I have sinned against Heaven and in thy sight; I am no more worthy to be called thy father; make me as one of thine acquaintances. And he arose and came to his son. But while he was yet afar off, his son saw him, and was moved with astonishment, and instead of running and falling on his neck, he drew back and was ill at ease. And the father said unto him, "Son, I have sinned against Heaven, and in thy sight; I am no more worthy to be called thy father. Pardon me now and let me be your friend." But the son said, "Not so; I wish it were possible, but it is too late. There was a time when I wanted companionship, and there is no more heart left in me." The father said, "Son, I had hoped to gain thee much money, and behold a stone. Both thy soul and mine may be lost for my folly. We will go back together to the right road, but the burden of the return shall be mine." And the Son replied, "Even so be it. What has been, can-

not be undone, but mayhap more wrong need not be done."

So the hired servant brought forth the fatted calf and killed it and there was great rejoicing, and the father summoned his friends to the feast saying, "Rejoice with me for behold, my son and I whose souls were dead are alive again. We, who were lost, have found each other and will return again to the real things of life." And it was even so, and in after years the first was worthy of his father, because the son the father was worthy of his son.

COOK'S CORNER

Recipes for Using Glucose

Apple Sauce.

EIGHT apples; six tablespoons white corn syrup (or glucose) one-half teaspoon cinnamon; one-half cup water.

Junket.

Three cups milk; three-quarters cup corn syrup; one junket tablet; one teaspoon cold water; one teaspoon vanilla. Heat milk, add corn syrup over hot water, stirring the mixture until the junket tablet is dissolved and dissolve in the cold water. Add this with vanilla to the milk, stir the mixture quickly to mix in thoroughly. Pour into dishes. Let it stand in a warm place until firm, then cool it.

Rice Pudding.

One-quarter cup rice, three-quarters cup milk; two teaspoons white corn syrup; one-quarter teaspoon nutmeg; three-quarters cup raisins. Cook the rice in boiling salted water until soft. Pour off water, add milk and other ingredients. Bake in a moderate oven for 40 minutes.

Chocolate Cornstarch Pudding.

Two cups milk; three tablespoons cornstarch; one-quarter teaspoon salt; two teaspoons sugar; two tablespoons corn syrup (white); one square chocolate; one-half teaspoon vanilla.

Wheatless Oatcakes.

Three cups oatmeal; one cup corn flour; one cup barley flour; one teaspoon soda; two teaspoons salt; one-third cup brown sugar; one and one-quarter tablespoons corn syrup; one-quarter cup shortening; one cup water. Mix the sugar, corn syrup, shortening and salt together. Dissolve the soda in the water. Mix the ingredients together in a dough stiff enough to roll.

Potato Drop Cookies.

One cup mashed potatoes; one cup corn syrup; one-third cup shortening; three-quarters cup buckwheat flour; two teaspoons baking powder; one-half teaspoon cinnamon; one-quarter teaspoon cloves; one-half teaspoon nutmeg; one-half cup raisins; one teaspoon grated rice; one cup sugar; one teaspoon lemon juice. Mix the ingredients in the order given and drop the mixture by spoonfuls on a slightly greased tin. Bake the cookies in a moderate oven.

Date Loaf

THREE cups Graham flour; one half-cup sugar; three teaspoons baking powder; one pound dates. Mix sufficient to make a stiff batter.

Graham Gems.

One egg; two tablespoons sugar; one tablespoon shortening; one and one-half cups Graham flour; one cup buttermilk; one teaspoon soda; one teaspoon cream of tartar; one-half cup white flour.

Almost Cakes.

One and one-half cups rolled oats; one table-spoon butter or a substitute; one teaspoon baking powder; one-half cup sugar; one-quarter cup raisins; one egg; two teaspoons almond extract. Combine dry ingredients, add butter substitute, the extract, and last, a well-beaten egg. Shape in teaspoonfuls and place on a buttered pan.

Ease in a very m
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Outmeal
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half cups flour; on
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beaten egg. Add s
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Wheatless
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flour; one cup r
baking powder. Boil
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about 45 minutes.

Nut Br
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sugar or corn syrup;
cups milk and water;
nuts (not too fine), o
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milk and water, sug
and nuts or raisins.
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Women's Institute

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in Toronto during th
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from a few institutes w
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Production and conserv
of canning center
prominence. Education
better health campaign

Place in a very moderate oven 25 to 30 minutes, or until dry and light brown.

Oatmeal Muffins.

Two-thirds cup rolled oats; one cup scalded milk; three level tablespoons sugar; one-half teaspoon salt; two tablespoons melted fat; one and one-half cups flour; one and one-half level tablespoons baking powder; one well beaten egg. Add scalded milk to rolled oats and let stand 30 minutes. Add sugar, salt and melted fat, and the flour sifted with the baking powder. Mix ingredients thoroughly and knead the mixture thoroughly. Drop spoonful into well greased muffin tins and bake from 25 to 30 minutes in a moderately hot oven.

Wheatless Pie Crust.

Two and one-half cups rye flour; two cups corn flour; one level teaspoon baking powder; one level teaspoon salt; three-quarters cup of fat; three-quarters cup of water. Sift flour, salt and baking powder together; cut the fat into the flour mixture. Add water, mixing and handling as little as possible. Chill until ready to roll.

Fruit Cake Without Eggs, Milk or Butter.

One cup brown sugar; one and one-quarter cups wheat, one cup scalded raisins; two ounces citron, cut fine; one-third cup shortening; one-half teaspoon salt; one teaspoon nutmeg; one teaspoon cinnamon; one cup corn flour; one cup rye flour; five teaspoons baking powder. Boil the first eight ingredients for three minutes. When cool, add the flour and baking powder sifted together. Mix well and bake in a loaf pan in a moderate oven for about 45 minutes.

Nut Bread.

Three cups Graham flour; five teaspoons baking powder; one and one-half teaspoons salt; one-quarter cup sugar or corn syrup; one cup chopped nuts (not too fine), or one cup raisins washed and floured. Mix together flour, baking powder and salt; add milk and water, sugar or corn syrup, and nuts or raisins. Mix well and put into greased loaf pan, allow to stand 20 minutes in warm place. Bake in moderate oven 40 to 45 minutes.

Women's Institute Conventions

ONCE more our annual Women's Institute Conventions are close at hand. The Eastern Convention is to be held at Ottawa on October 17-18. The place of the girls in the Institute will be dealt with in a comprehensive way at this convention, as this is a subject which is demanding more and more attention. It is anticipated that an address by Food Controller Thomson will be another feature of the convention. The extension of institute work, the nationalization of institutes, discussions on war work, demonstration lecture work, etc., will also be dealt with. A visit to the Dominion Experimental Farm is anticipated.

The branches of Western Ontario meet in convention at London two weeks later—October 30-31. Some of the subjects to be discussed at this convention are: "What Farm Women are Doing to Help"; "Women and Farm Work"; "My Experience as a Farmerette." It is expected that an address on "The Farmers' Opportunity" will be delivered by Hon. G. S. Henry, Minister of Agriculture. A visit to the Byron Sanitarium, in which many of the institutes of Western Ontario are interested, is promised.

The Central Convention will be held in Toronto during the second or third week of November. The date will be announced later. Plans are being made to have representative reports from a few institutes along patriotic lines as one feature of this convention. Production and conservation, also the care of canning centres, will receive prominence. Educational matters and better health campaigns are included

in the proceedings as well as woman's work on the farm.

Mr. Germ and Dish Pan

PERHAPS never before in the world's history have we heard as much about getting rid of germs around our houses as we do at the present time. There are many appliances such as dustless dust mops, vacuum cleaners, antiseptic sprays, household ammonias, and cleansers for removing dirt, etc., and if we make use of these it would seem that we could be "armed to the teeth" against Mr. Germ. There is still a loophole through which the germ finds entrance into many of our homes, and that is via the dish pan.

While we have been keeping close tab on the sanitary condition of our homes, taking care that the milk and food served is clean, etc., we have to a large measure neglected to make any changes in our method of dishwashing—a task which we perform three times daily, or at least 1,935 times in a year. In a recent issue of the Mothers' Magazine appears some interesting and rather startling statements concerning the dangers of careless dishwashing—and even when we would consider careful dishwashing.

A woman who was impressed by the leading role unclean dishes may

play as germ spreaders, proceeding to make a careful study of dish washing and dish wiping in the home from a bacteriological standpoint. She found that an ordinary dinner plate as it leaves the table in the ordinary household has on it anywhere from 30,000 to 90,000 bacteria, the average being about 60,000. A long series of experiments were carried on to learn how many bacteria were left on these plates after they had been washed. The dishes were washed in water of differing temperatures and rinsed in lukewarm water and then the bacteria were counted under a microscope. The average dinner plate, when washed in lukewarm water and dried without rinsing, was found to have on its surface 250,000 bacteria, or almost five times as many as it had when brought soiled from the dinner table!

This statement may seem amazing and improbable; but a little thought will show that it is logical, and the result what might have been expected. What are the necessities for food. And what does the housewife give to those bacteria when she puts a lot of dinner dishes in lukewarm dish water? Warmth and food!

Thousands of housewives are still washing dishes in water no hotter than they can bear their hands in. It

is not hot enough to kill bacteria; in fact, it encourages them. So they multiply and increase, and the dishes that are taken out of this water have on them five times as many germs as they had when put into it.

This source of danger can be eliminated from the household! by the use of hotter dish water and the careful rinsing of dishes in boiling water.

This investigation, therefore, shows that the hotter the water the fewer the bacteria left alive, and hence the smaller the danger of the spread of disease in the family. The experiment showed that the only way to have sterile dishes is to use boiling dish water and boiling rinsing water. The article concludes with six rules by which one may achieve the maximum of cleanliness in dish washing. They are:

First—Carefully scrape all plates and platters before washing.

Second: Do not allow anyone recovering from any form of contagious disease to handle dishes during washing.

Third: Do not cough or sneeze while working with the dishes.

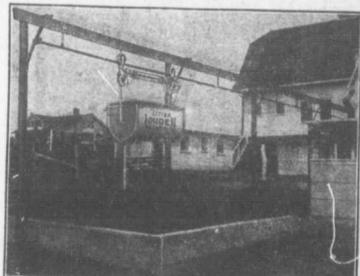
Fourth: Have the dish-water hot. Use a dish-warmer.

Fifth: Rinse all dishes in boiling water.

Sixth: Use clean dish-cloths and dish-towels.

LOUDEN

**LITTER CARRIERS
SAVE ONE-HALF
THE BARN WORK**



Meet your present labor shortage by installing a Louden Litter Carrier. With it you can actually save one-half your barn work—every day in the year—for years to come for it will last as long as the barn stands. Think what that means to you, not only in the saving of hired help, but in the satisfaction of knowing that the Louden Carrier will always be on the job doing its work satisfactorily.

LOUDEN LITTER CARRIERS are built for ease of operation, convenience and long service. The gear is hung on Swivel Jointed Trucks, making it just as easy to run on curved track as on straight. The track wheels are set as far apart as possible to prevent jumping and jerking, and are roller bearing with 7/8" Tempered Steel Axles. You can't overload a Louden Litter Carrier box. It is constructed of heavy Galvanized Steel, reinforced with angle iron—has few parts, and is made for heavy work.

Perfectly balanced—it dumps easily and a slight touch with the fork or shovel, swings it back into latched position.

BUILT TO FIT ANY BARN OR PURSE

We have the outfit that exactly suits your barn, and that will pay for itself over and over many times. Write us what size and style of barn you need, and we will send you the number and kind of stock, etc. you will be pleased to advise you as to your needs and exact costs of same.

Have you seen OUR NEW ILLUSTRATED CATALOGUE?

It shows the complete line of Louden Barn Equipment, including Litter and Feed Carriers, Stalls and Stanchions, Hay Tools, Horse, Stable Equipment, Cupolas, Water Bowls, Animal Pens of all kinds—"Everything for the Barn." Sent free on request.

LOUDEN Machinery Co. of Canada, Limited

402 CHINEA ST. GUELPH, ONT.

Branches at
460 MARTIN AVE. WINNIPEG, MAN.
VANCOUVER, B.C. ST. JOHN, N.B.

Alberta dealers write:
ALBERTA DAIRY SUPPLIES, LTD., EDMONTON, ALBERTA

Louden Machinery Co. of Canada Ltd.,
402 China St., Guelph, Ont.
Please send, postpaid, books on lines checked below:

Hay Tools Barn Plans
 Stalls and Stanchions Horse Stable Fittings
 Feed and Litter Carriers.

Name
Town Province 40



Produce More Eggs Waste Less Feed

PRATT'S Poultry Regulator will help you get more eggs—more chicks—more layers—more profits. What's more, it will help you to save money on feed, because it makes your fowls digest their feed and turn it into eggs. Poor digestion is a source of waste, and waste reduces your profits.

"Pratts" added to the daily ration, will pay handsome dividends in health, vigor, and egg-production. At your dealer's in popular priced packages, also money-saving 25-lb. pails and 100-lb. bags.

Money Back If Not Satisfied.

Write for new book on care of poultry. It's FREE.

Use **PRATT'S ANIMAL REGULATOR**
The Guaranteed Stomach Tonic.

**PRATT FOOD CO. OF
CANADA, LIMITED**
328P Carlaw Ave.,
Toronto. P-4

Pratts
DISINFECTANT

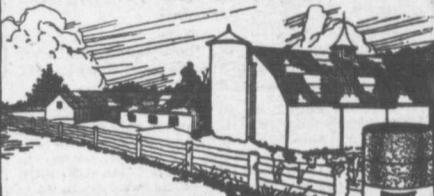
kills lice and mites.
Keeps down bad
odors. Destroys
disease germs. Use
it for spraying
roosts, nests and
poultry houses.
At your dealer's,
in 1 gal. and 1 qt.
cases.

No business was ever so great or powerful that it could buy all the good advertising space and so get all the good results. There's plenty of chance for every good starter.

NEPONSET ROOFS

NEPONSET PAROID ROOFING NEPONSET TWIN SHINGLES

THRIFT and production are the farmer's watchwords this year. *Paroid* is a tremendous help to the thrifty farmer, because the price is right, it is easy to lay, will require no repairs, and will last for many, many years. To date, Paroid has a record of over 19 years' service.



NEPONSET Paroid ROOFING

If you are roofing, or repairing roofs this year give your building the protection of Paroid. For instance, burning cinders falling on a Paroid roof die out harmlessly.

Paroid makes an attractive roof, too, either in the gray finish, or with the red or green crushed slate surface.

Insist on the genuine Paroid. Look for the label as shown here.

Neponset Twin Shingles for all Residences
Sold by Hardware and Lumber Dealers

Bird & Son, Limited, Head Office, Hamilton, Ont.

—Warehouses:—

Montreal, Toronto, Winnipeg, Calgary, Edmonton, St. John

The Largest Manufacturers of Roofings, Wall Board and Roofing Felts in Canada

178

A Glance at Blouses, Shoes and Gloves for Fall

Farm and Dairy patterns shown in these columns are especially prepared for the most modern features of the paper patterns. When sending your order please be careful to state bust or waist measure for adults, for children, and the number of the pattern desired. Orders are filled within one or 10 days after receipt. Price of all patterns to Our Women Folk, 10 cents each. Address orders to Pattern Dept., Farm and Dairy, Peterboro, Ont.



2587—Tailored waist seems to be gaining in favor this season. The style with high collar turned down in shallow tabs over a black bow tie, now bids fair to carry all before it among the plainer types, although it still has a serious rival in the low necked blouse. The tailored waist is usually seen in lawn, or crepe de chine with small dots or maize as the color. The front is very often tucked after the manner of a man's shirt, and the sleeve, and cuff strictly tailored. For the more dressy waists which are a necessity if one is wearing a suit throughout the fall and winter, half collars or no collars at all are the rule on many of the blouses. Beading, embroidery and fllet or valencienne lace are the favorite trimmings.

In gloves, brown in all its degrees of shade, is good style. Capelin, chambray, suede and silk are also some hits. We are told, however, that silk gloves are much more practical for wear nowadays as kids in very scarce.

2587—Girl's Dress.—The loose style of dress here shown would make a very practical costume for school wear. If desired one might have a couple of over blouses to wear with the same skirt. Contrasting material will make a suitable trimming for the dress. Four sizes: 8, 10, 12 and 14 years.

2588—A Smart Dress.—The young girl who is looking for a smart style for her new dress, or even the small woman, will not doubt be pleased with this design. The plumed effect in the back is attractive and especially so for slight figures. The front also shows good style, as does the sleeves. Three sizes: 16, 18 and 20 years.

2589—Lady's Suit.—Cape coats are very stylish nowadays and probably some of our home dressmakers would like to try out this stunning style. A checked material trimmed with a chic combination. This model calls for two patterns, 10 cents for each. The coat is cut in four sizes: small, 22-24; medium, 24-26; large, 26-28;

extra large, 44-46 inches bust measure, while the skirt is cut in sizes from 22 to 24 inches waist measure.

2589—Girl's Dress.—Is this not a dainty design for a young girl's frock? It is somewhat out of the ordinary and this should appeal to many of our little folks who are fond of having something different on their change. Four sizes: 4, 6, 8 and 10 years.

2490—Lady's Apron.—This style of apron has several commendable features. It is practically a complete overall, except for the sleeves, has two convenient pockets, and crosses in the back, fastening on the shoulders, thus doing away with any slipping off the shoulders. For sizes: small, medium, large and extra large.

2490—Girl's Dress.—This little dress is simple of design and yet very attractive in appearance. Note the style of sleeve without a cuff and laid in tucks to fit around the wrist. The sash also adds a soft appearance to the frock. Four sizes: 4, 6, 8, and 10 years.

2590—Lady's Dress.—A dress such as the one shown herewith would make up nicely in some shade of champagne satin, a material which is very popular this season and is more serviceable than taffeta. A trimming of ribbons, along with the unique collar and vest effect, should make an attractive costume. This design calls for two patterns, 10 cents for each. The blouse is cut in sizes from 24 to 26 inches bust measure and the skirt from 22 to 24 inches waist measure.

2590—Boy's Suit.—We have not forgotten the boys this week and herewith we are showing a very chic suit for the mother's little man. Four sizes: 4, 6, 8 and 10 years.

2610—Lady's House Dress.—A dress made after this style would be very nice indeed for many occasions and especially for afternoon wear. It is simple and yet effective. Seven sizes: 34 to 46 inches bust measure.

The Maker

Butter and Cheese
wants to send out
department, to a
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and to suggest suit-
able.

Using the B

PREVIOUS to this
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has thrown away
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own 25 acres of land
the Creamery.

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Canada Food Bulletin.

The U.S. Wi

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of Wisconsin is very

OVES

The Makers' Corner

Butter and Cheese Makers are invited to send contributions to this department, to ask questions on matters relating to cheese making and to suggest subjects for discussion.

Using the Buttermilk

PREVIOUS to this year the Silverwood Creamery at London, Ont., has thrown away about 1,500,000 pounds of buttermilk annually. Being unable to find farmers in the vicinity who would accept the milk as a gift, they allowed it to run down the sewer. Mr. Silverwood, President of the concern, has been worried at this waste and this year determined to put a stop to it. Accordingly, he established a pig farm on his own account, securing 28 acres of land three miles from the Creamery.

On this farm, he already has 300 pigs. By combining grains, such as oats, corn and barley, with the buttermilk, and feeding percentage of tankage, he has attained an increase on some of the hogs of 2½ pounds per day. Already this year is self-supporting, although Mr. Silverwood charges it at the rate of 30 cents per hundredweight for the buttermilk used, and by the end of the year he expects to show a considerable gain.—Canada Food Bulletin.

The U.S. Winter Make

THERE can be no question that the make of cheese throughout the New York and neighboring states is running lighter than last year, says the New York Produce Review. This we believe is due chiefly to the keen competition from competing outlets including condensed, powdered and market milk. The demand for all these products is large and it is the general report that it is larger than last year. Hence, even though the milk flow in the east is not materially different from a year ago there appears to be less milk left for manufacture into cheese.

In the cheese producing territory of the middle-west the make of cheese, though lately curtailed somewhat by dry weather, is generally reported to be nearer normal than in the east, and if prices prevailing for cheese are attractive in relation to other dairy outlets, there is no reason yet discernible why we should not have a fairly liberal fall and winter make. Afterfeed, both east and west is good.

The size of the make during the coming six months will be largely a question of prices. So far cheese prices have not advanced sufficiently to offer as attractive profits as can be realized from the sale of milk or the products of some other dairy products; and judging from reports current as to prospective market milk prices for the next three months cheese will have to advance several cents further in order to compete on even terms.

The profit limits on held cheese have tended to prevent cheese prices from moving up as rapidly as would have been the case in an uncontrolled market; but recently, owing to the extent of the demand and lightness of the offerings in relation thereto, prices have been jumping more rapidly and if the present rate of advance holds for a few more weeks we may find inducement sufficient to give as a liberal late fall and early winter make of cheese. It should be remembered that only a very small fraction of the country's total milk supply is used normally for cheesemaking and cheese producing states of very materially increasing states of very much of cheese if the price is attractive enough. As we have said before the latest winter cheese producing power of Wisconsin is very large owing to

the extent to which winter dairying has been developed.

Cream Buying Stations

ALREADY there are over 100 cream buying stations in Western Ontario. They are pretty well distributed over the prairie provinces. Intelligent dairymen who value the reputation of Canadian butter, are beginning to view these buying stations as a menace. In the United States, dairymen have had more experience with the buying station than we on this side of the line and we may well profit by their experience. In the recent issue of "The Dairy Record," J. S. Sorenson of Minnesota, writes of them as follows: "One of the main barriers to cream grading and paying for quality, is the cream station which stands ready at all times to take any kind of cream at the same price, and as the cream station can do little or no business in a community where the standard is of quality is high much effort is usually made by the station operator to keep the quality of cream down to a low level. If the creamery offers a premium for good, sweet cream, we find that the cream station will also pay this higher price for inferior cream, and the cream producer naturally believes that there is nothing to this quality business after all, and

HELP FIGHT YOUR COUNTRY'S BATTLES.

ARE you saving any money for Victory? That's the question that has to be answered one way or the other now. Are you doing anything at all to help fight your country's battles?

Surely it is time to wake up. What counts is the decision to do things. If you start a savings fund of your own, that settles it, you are on the patriotic side. Your efforts count. If not, you might as well be a spendthrift enemy!

Now is the time to act. Either you are a patriot doing your bit by saving your funds, or you are an enemy, disregarding the call of your country and your boys, whose lives are going out at a tremendous rate in Flanders just now. It is not too late to begin. Save for Victory!

the creamery is again forced to fall back in the old rut of paying one price for all kinds of cream.

"If the cream stations were eliminated, there would be some chance of improving the average quality of our butter, as the patron would then pay some attention to the advice given by the creamery operator, while now it has become a habit with many patrons, to tell the man at the weigh can that they can take their cream to the cream station if it is not good enough for the creamery. How we can hope to improve the output of our creameries under such conditions is beyond our understanding."

Officials of farmers' clubs who are considering the cooperative shipping of live stock will be interested in a recent circular, edited by E. G. Gordon, of the Cooperation and Markets Branch, Department of Agriculture, Toronto, on "How to Organize and Manage Live Stock Shipping Associations." Mr. Gordon is specializing in this line of cooperative work and the suggestions that he makes in circular No. 15 are sure to prove helpful.

City livestock stables appreciate the benefits of a bath occasionally for the hard working horse. Farm teams would also be the better of a bath occasionally.



NOTICE—MILITARY SERVICE ACT, 1917 REGISTRATION OF UNITED STATES CITIZENS

Male citizens of the United States living in Canada of AGES 21-30, both inclusive, MUST REGISTER BY REGISTERED POST with the Registrar under the Military Service Act of the district in which they live, during the TEN DAYS NEXT FOLLOWING SEPTEMBER 28th, 1918; and such CITIZENS OF THE AGES 19, 20 AND 31-44, both inclusive, must so register during the TEN DAYS NEXT FOLLOWING OCTOBER 12th, 1918. It must be emphasized that THIS INCLUDES AMERICANS LIVING IN CANADA OF THE ABOVE AGES, MARRIED AND SINGLE, and includes ALSO ALL THOSE WHO HAVE SECURED DIPLOMATIC EXEMPTION OR HAVE REGISTERED WITH AN AMERICAN CONSUL, or HAVE REGISTERED FOR MILITARY SERVICE IN THE UNITED STATES.

Registration letters may be handed to local Postmasters for despatch to the proper Registrar, under the Military Service Act.

MILITARY SERVICE BRANCH.



NOTICE—MILITARY SERVICE ACT, 1917 MEN EXEMPTED AS FARMERS

Having in view the importance of leaving a sufficient number of men on those farms, which are actually contributing to the National Food Supply, notice is hereby given as follows:

1. ALL MEMBERS OF CLASS I POSSESSING EXEMPTION AS FARMERS which is expiring and WHO WISH TO REMAIN EXEMPT should communicate with the Registrars under the M.S.A., of their respective districts, REQUESTING AN EXTENSION IN TIME OF SUCH EXEMPTION. Questionnaires will thereupon be issued to these men by the Registrar and they will receive further exemption upon furnishing satisfactory proof that they are contributing sufficiently to the National Food Supply.

2. In order to facilitate productive employment during the Winter months, MEN EXEMPTED AS FARMERS SHOULD APPLY TO THE REGISTRARS FOR PERMITS TO ENGAGE FOR THE WINTER IN SOME OCCUPATION OF NATIONAL INTEREST, SUCH AS LUMBERING, MUNITION WORK, ETC. Such permits will serve to enable exempted farmers to pursue other useful occupations for the months during which farming operations cannot be carried on.

MILITARY SERVICE BRANCH.

BRINGING IN THE CASH

One way to do this is to increase your output by better methods of production—another is to conserve the feeding stuffs you now produce, making them go farther by carefully balancing the feeds. Study out the problem now. The one best book of which we know on this subject is "DAIRY FARMING" by Bickley & Warren. You can secure it from our Book Department. The price is but \$1.50, neatly bound in linen.

Book Dept.

FARM and DAIRY

Peterboro



usual amount... sizes from 22... this not a... girl's frock... ordinary and... of our little... giving something... Four sizes... this style of... ofable features... in general, ex... production of... back, fasten... doing away... from... and extra... Little dress is... very attractive... which is very... in tucks to fit... from... Four... mo—A dress... green with w... hach of char... which is very... more attractive... of the collar... an attractive... The blouse is... on 22 to 34... do not forget... herewith will... suit... to... dress... and especially... 34 to 48

Don't Cut Out A SHOE BOIL, GAPPED NOCK OR CURBISSETT



FOR ABSORBINE
TRADE MARK REGISTERED IN CANADA

will remove them and leave no blisters. Reduces any puff or swelling. Does not blister or remove the hair, and horse can be worked. \$2 a bottle delivered. Book 6 for free.

ABSORBINE, JR., the antiseptic liniment for man and horse. Sold in bottles, 50¢ each. Sold in 1/2 gallon tins. Wholesale, Albany, Pa. Price \$1 and \$2 a bottle at drug stores or by mail. Will mail more if you write.

W. F. WING, P.O. 1, Lymanville, Md., Montreal, Can.
Absorbine and Absorbine, Jr. are made in Canada.

95 to 125 Miles on a Gallon of Gasoline!

The Shaw Motorbicycle
A high-grade, easy running, speedy motorbicycle of amazing power at a saving of from a third to a half in actual mileage. Equipped with 26 H.P. Motor, Johnson Valve Governor, high tension magneto, Automatic Ignition, Chain Drive, Simple, efficient control at all times. Thousands in use.

Write today for prices and terms, also about the Shaw Motorbicycle—its size and power.
SHAW MANUFACTURING CO.
Dept. 188 Calsburg, Kans., U.S.A.

77 Acre Farm \$700 Near City of 16,000

Retiring owner offers low price bargain near neighbors, half mile school, 4 miles town stores, high school, milk station, etc., 45 acres loam tillage, 25-cow, spring water-ed, wire-fenced pasture, home-use wood; fruit, 8-room house, barn and working buildings. \$700 gets all, part cash. Details page 21, Strout's New Fall Farm Catalogue of this and other bargains, many with stock, tools, crops; your copy free.

E. A. STROUT FARM AGENCY
Dept. 9,
150 Nassau St., New York, N. Y.

SMALL QUANTITY STATIONERY—100 sheets of letter paper 8 x 11; 100 envelopes—printed with name and address and business, in Ontario \$2.25, other provinces extra postage 50c.—Cash with order.—Farmers' Printery, Beaverton, Ont.

15-PRIVATE CHRISTMAS GREETING Card Sample Book Free. Men and women already making \$5 up daily in spare time. Bradley, Carleton Place, Bradford, Ont.

Peck, Kerr & McDermid
Barristers, Solicitors, etc.
415 Water St., Peterborough
E. A. Peck F. D. Kerr V. J. McDermid

Food Will Win the War

Serve your country and yourself by raising FOOD on the fertile plains of Western Canada. The Canadian Pacific Railway makes it easy for you to begin. Lands \$10 to \$30 an acre; irrigated land up to \$50; 20 years to pay. Loan to assist settlers on irrigated lands. Get full particulars and free illustrated literature from

G. B. MUDDIMAN,
Land Agent, C. P. R.,
Montreal, P. Q.

SHEEP AND SWINE

Feed for Brood Sows

WHAT should I feed brood sows? I have one within one month of farrowing—C. W., New Ontario.
Mature thrifty sows can be maintained in excellent breeding condition on a ration consisting largely of roots, preferably mangels or sugar beets, of a very cold snap, which, of course, does not apply in this case, some grains should be given to assist in maintaining the animal in good condition without grain feeding at all if they have the run of a fairly good pasture. As the sows become further advanced a small grain ration is excellent; so is ground oats; barley or corn, which are heating in character, should be used sparingly unless they can be fed with liberal quantities of skim milk or whey. Of equal importance with the feeding is exercise. The sow should have plenty of exercise every day, and it compelled to feed the most of her life from nature. There will be no difficulty in this connection. An hour or so after farrowing the sow should be given a drink of warm water, into which hot molasses meal has been stirred. Very little grain should be given the first day. Overfeeding with grain just before or after farrowing will cause udor and digestive troubles. At the end of a week, however, she should be getting all she will eat up clean. Skim milk or whey are especially valuable at this time, and are the same meals are preferred that are recommended to feed before farrowing—those that are not too heating in character.

Acute Diarrhoea

I HAVE three young sows that gave me 20 pigs. At one time they began to die, but they did not improve. I've the kind of diarrhoea in mind. I don't know how I can change their feed. Even the little ones are not getting any better. I want to be posted for a future. Is there anything I could do to prevent or is there a remedy for scours?—T. L. Laneck Co., Ont.

The diarrhoea is caused by either the nature of the milk or unsanitary surroundings. A sole ration of shorts and water for nursing sows tends to cause diarrhoea in both dam and young. A mixture of two parts oats and one part peas or barley chopped and one part shorts or middlings, with milk and grass or raw roots, would make a much better ration, or even chopped oats and shorts. A nursing sow requires a grain ration of some kind. The administration of a dessert spoonful of lime water and five drops laudanum every four or five hours would tend to check the diarrhoea, when any sort of grain was not kept up, provided the cause was not kept up.

Price of Ontario Wool

"SOME of the fellows are kicking because they think they did not get enough for their coarse wool," recently remarked Mr. E. W. Wade, who has charge of the cooperative wool sales in Ontario, in an editor of Farm and Dairy. "I have even heard the complaint that coarse wool was not really sold at all. Much of the wool growers of the United States for wool of similar grade. In the first place, I want to say that the men who are keeping sheep who expect to get the highest price for their wool. They must expect to get a smaller price per pound for fleeces of greater weight."

Mr. Wade then added the following figures to prove that the price realized by cooperative wool sales in Ontario was even higher than the fixed price for wool in the United States.

	Ontario Cooperative Wool Sales	U.S. Fixed
Medium combing	76 1/2	\$1.46
Low medium combing	74 1/2	\$1.38
Low combing	72 1/2	\$1.27
Coarse	71 1/2	\$1.21
Medium clothing	73 1/2	\$1.39

After presenting these figures, Mr. Wade added: "I admit that the man with only coarse wool to sell may get more from the dealer than he will get selling cooperatively, but his extra money comes out of his neighbor who sells a higher quality fleece. The dealer who gives a price and the man with quality wool loses more by selling to him than is gained by the man with the coarse fleece. We grade our wool and men are paid just in proportion to the quality of their fleeces, which is the only right and square way to do it.

"Some people seem to think that co-operation has some peculiar way of making more money for wool," concluded Mr. Wade. "It hasn't. It is merely a better way of marketing."

Hog Minimum Advised in U.S.

THE agricultural advisory committee and representative stock raisers have recommended to the Food Controller that a minimum price of \$15.50 per cwt. be maintained con-

THE SINEWS OF BUSINESS
—AND WAR.

THE bulwark of national credit is a saving and thrifty people. Business to-day is run largely on credit. Credit, in the last analysis, is savings,—the dimes and the pennies that the multitude have put aside against a rainy day. The savings are the sinews of business in times of peace; they are absolutely necessary to national stability in time of war.

War is waged with men, munitions and money. All three are essential. The man who goes to the front as a patriot.

The whole souled munitions worker, whether on the farm or in the factory, is a patriot. And the person who defers all but the absolutely necessary expenditures and saves his or her money to buttress the nation's credit, is a patriot. Thrift is one of the nation's hour of trial.

tinuously on hogs in the United States during the war. In recommending this minimum price, the committee says:

"It is recognized that the food administration has no power to fix the price of hogs or corn, and can influence the hog price only so far as the volume of controlled orders for the army, navy, allies, and export trade will absorb the surplus production. "On the other hand, it must be recognized that the costs of production are necessarily greatly increased, and that to maintain production fair returns must be assured to the farmer. It is, therefore, a fundamental principle of the producer and consumer that both extreme high and low prices should be guarded against.

"In order effectually to carry out the above policy of the food administration it is recommended that in dealing with the packer directions should if

necessary include a definite price basis in advance from month to month for the packers' portion of the hog. "It is recommended by the committee that the 'average cost per bushel of corn' for the purpose of determining the price of hogs be considered as the average 'fair value of corn' at the average selling price of corn at local railroad stations as determined by the Department of Agriculture."

Dairy Cows and Hog Production

Speaking before the dairymen of Alberta at the recent convention, Mr. P. Falleson, the well known Calgary dairymen, showed the close relation between dairying and the hog production campaign. During the past few months, said Mr. Falleson, some of our best government officials have been out on a campaign for more and better production of hogs and bacon. "I am sure they will succeed," he honestly, but I do believe that some of the good work has been wasted in speaking to city folks in cities, and grain growers in the wheat districts.

"The farmer could not produce a pound of pork on a bet, not to talk about producing it economically.

"Who is the real producer of necessities? Why, the farmer and the dairymen. I never believed in appealing to patriotism or sympathy. Give the farmers a straight business proposition, and they will see it. I am sure they will. You have nothing but money on hogs if you have nothing but No. 1 hard wheat to feed, but you can produce the first 110 pounds from skim milk, whey or buttermilk, along with good pasture. Then you can produce the last 90 or 100 pounds from grain. That is the way for greater production, and nobody but the dairy farmer who has skim milk or whey or buttermilk at a local creamery or cheese factory to have the buttermilk or whey, is today under the present prices of grain, able to be a real producer of hogs.

"Then, when the farmers were asked to produce more hogs, why were they not told to milk a dozen more cows each to help the situation? Why, by their products, they cannot produce the hogs. "I wish to make this clear, I am not after the man who worked for more hog production. I am after the man who worked for the whole story. How necessary it is to milk more cows at the same time."

Prepare Bees for Winter Now

F. W. L. Sladen, Apiarist, Department of Agriculture, Ottawa.

UPON every owner of bees depends the present and the future of the national duty: to do his best to keep them alive until they can again add to our depleted supply of sweets. Half the battle now to prepare them with the best protection during cold weather. If you have not a dry, deep cellar, try to get a friend who has one to let you put your bees in a dark corner there. Do not put your bees colonies away in the cellar. They consume more stores, so valuable now, than strong ones, and even then are more likely to die. Until then now, while the weather is still mild, and see that your colony has about 30 pounds of wholesome stores to tide it over well on in spring. Do not delay. Uniting and feeding cannot be satisfactorily done when cold weather is upon us. If your apiary is sheltered from wind, another good way to winter strong colonies of bees, suitable for southern Canada, is to dry leaves in a large case. Do not forget to provide a slight flight hole in the case. Honey has doubled in value since 13 months ago, and so has every bit of bees last winter, mostly through neglect to prepare them with care and in good time.

Success in Winter

W. W. Webster, Ontario.
GOOD stores are the key to success in winter. Bees in winter bees should be in a strong position to be as large as that they heat. In nuclei or contract the hive by contract in an effort to attract a division board as a bug as "a big I prefer the sealed absorbent cover. You should not plan this. Then I tried using a partially covering this. As my confidence increased, sealed cover, I covered faces. The next and I added an extra three more as if they very upon it. One year as pens, I forgot to pack in the spring it was good condition. This in how much depending. The sealed new however, was in a tight case that the sealed cover work.

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A Visit With F. Stratford

(Continued from page 10)
they have to pay their share from their bees. They are to retain a place. Mr. Smith told me he had 50 head of pure-bred with a milking herd of Strathmore milkman considerable for the milk. His name is Francis Stratford. I believe he men other records lack of but I have forgotten the distinctly, however, that his efforts were through an advertisement and Dairy.

Crops and Crops

From the drive doors could look back over the and see the crops growing. Mr. Smith told me that together there were about grain and 25 in new soil. His favorite grain mixture was a mixture of wheat recommended by Prof. Zerkow. His favorite varieties of production—O.A.C. No. 31 barley. Mr. Smith has a patriotic enough to be to spring wheat. One year rotation of crops. Two crops seeded down. Two crops of hay pasture. As a practical never been able to follow hump rotation with the find that Mr. Smith is with the best wheat. In stance, last winter Mr. the acres of alfalfa almost filled out. From this he took 27 tons of great. It will not last this encourage me with the seed me. "I cropped the five years and had a very year. Such a freedom last winter. I was re and it may never be fully convinced that each rather than red clover. Mr. Smith is a great advocate of alfalfa. I was glad to and make this declara-

Increase your potato yields by 20%

It has been definitely proven both by scientific experiment and by practical experience that vigorous, disease free seed potatoes grown in Northern Ontario are superior to seed from any other source, for planting in Old Ontario. Here are some results that have been obtained.

The Ontario Agricultural College Reports as Follows:

For five years seed potatoes of one variety from Northern Ontario, New Brunswick and Old Ontario, have been planted side by side under exactly the same conditions. In each year Northern Ontario seed has led, New Brunswick has come second, while Old Ontario seed has given the lowest yields. Last year the yields were 359, 318 and 220 bushels per acre respectively.

The Dominion Central Experimental Farm, Ottawa, Gives as Convincing Evidence:—
In 1917 seed of the Green Mountain variety was secured from New Ontario, New Brunswick and Old Ontario, and planted upon the same soil and cared for identically. The resultant yields per acre were: New Ontario, 360 bushels; New Brunswick, 267 bushels; Old Ontario, 85 bushels.

By Practical Ontario Farmers

the same results have been secured. Several have grown Northern Grown seed potatoes and are unanimous in declaring that their yields were increased thereby not less than 20 per cent. They have proven by practical experience that it pays to buy first class seed potatoes from the North.

There are Definite Reasons for this Increased Yield

The climate in New Ontario is cool and moist, better adapted to the vigorous development of the potato, thus engendering superior vitality in seed tubers. In Old Ontario prolonged heat and drought often arrest growth and weaken the vitality of the potatoes. These latter conditions produce a well matured tuber excellent for table purposes but not of highest quality for seed.

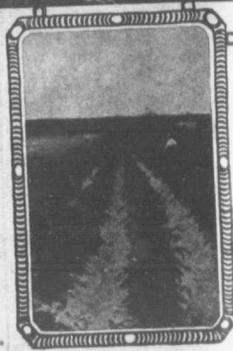
The seed produced in Northern Ontario is immature, the plants remaining green and vigorous until frost cuts them down. It is a well known fact among potato growers that immature seed, other factors being equal, out-yield well matured tubers.

The most serious of potato diseases, Leaf Roll and Mosaic, because of climatic conditions do not make such rapid progress in New Ontario, and when present do not so greatly weaken the vitality of the plants, as they do in Old Ontario. Leaf Roll, the more serious of the two, is seldom found among the native stock in the North. These diseases, on the contrary, have been proven by a survey conducted this year by the Federal Department of Agriculture to be very widely established in Old Ontario, where conditions seem favorable to their development. As both diseases are hereditary, and Leaf Roll, at least, is communicable as well, the only remedy is to secure seed from districts not favorable to their development.

Not all Northern Grown Seed, however, will Give These Greatly Increased Yields

It cannot be expected that seed bought indiscriminately will give the best results. The factors governing the production of first-class seed potatoes hold true in New Ontario as they do in Old Ontario. The foundation stock must be as true to variety and as free from disease as is practicable. Cultural methods must be good, the crop must be inspected and rogued for disease in the growing condition, and the high standard thus obtained must be maintained by careful selection. Where none of these factors are considered it is idle to expect that seed from any source can be purchased with any assurance that the yields will warrant the expenditure involved. As neither Leaf Roll or Mosaic are indicated

Illustration below shows Field Meeting of Seed Potato Growers in Algoma, Called by Agricultural Representatives to Discuss Disease Control and the Production of High Class Seed.



A Rainy River Potato Field Free From Physiological Disease, and True to Variety.

by the appearance of the tubers, it is always the part of wisdom to demand an authentic statement from the seller regarding at least the percentage of these diseases present in the crop.

High Class Northern Ontario Seed Potatoes Now Available

To ensure an adequate supply of seed potatoes reasonably true to variety and free from disease the Ontario Department of Agriculture has encouraged the development of a seed potato industry in Northern Ontario along extensive lines. A quantity of good foundation stock was distributed at cost to Northern farmers who have co-operated with the Department with excellent success. To limit the multiplicity of varieties in Ontario only those of the Irish Cobbler and Green Mountain types were chosen. The Federal Department of Agriculture appointed a staff of Inspectors, who inspected the growing crops this summer for truthness to variety and freedom from disease, and inspected the tubers this fall after being dug. The potatoes which conformed to the standards approved by these Departments for seed are now certified as to quality and are recommended for purchase by Old Ontario growers.

All such recommended seed potatoes are to be sold by Northern farmers in bags, each bag to bear a tag stating the name of the variety, the recommendation of the Federal Department of Agriculture and the name and address of the grower.

Unfortunately the supply of this certified seed, both of the Irish Cobbler and of the Green Mountain types will not, this year, equal the demand. Next year, however, if weather conditions are favorable, the quantity of Northern Ontario grown certified seed potatoes should be adequate for all purposes.

Arrangements have been made by the Ontario Department of Agriculture to put farmers and farmers' associations in Old Ontario in touch with the growers and growers' associations in New Ontario who have inspected and recommended seed potatoes for sale—as long as the supply lasts—car load lots only. Communications will receive attention in the order in which they are received. Exact prices will be quoted upon demand. In order to take advantage of the cheaper lake and rail freight rates, shipments will have to be made before navigation on Lake Superior closes—usually early in November.

Please Note—Orders will be received for Carload Lots Only

Any wishing to avail themselves of this opportunity to buy first class Northern Ontario grown seed are advised to order them at once. For full particulars write the Office of the Commissioner, Ontario Department of Agriculture, Parliament Buildings, Toronto.

Ontario Department of Agriculture

Parliament Bldgs., Toronto

HON. GEO. S. HENRY,
Minister of Agriculture.

DR. G. C. CREELMAN,
Commissioner of Agriculture.



Use selected Northern Ontario seed potatoes