

Issued Each Week—Only One Dollar a Year

VOL. XXVIII

NUMBER 19

FARM AND DAIRY

RURAL HOME

Grisdale J. H. (K)
C.E.F.

PETERBORO, ONT.

MAY 13 1909



EASTERN ONTARIO DAIRY INSTRUCTORS AND SANITARY INSPECTORS, SEASON OF 1909.

Front Row, reading from left to right: D. J. Cameron, J. H. Echlin, J. F. Singleton, G. G. Publow, (Chief Dairy Instructor and Sanitary Inspector), W. W. Dool, J. Buro, Jos. Charbonneau. Second Row: A. H. Wilson, H. Howey, W. J. Ragsdale, R. W. Ward, R. Elliott, R. T. Gray, H. E. Brintell, T. J. Ellis, W. G. Gardiner. Third Row: G. H. Bensley, C. W. Norval, W. G. Graham, S. S. Cheetham, T. E. Whattam, I. Villeneuve, A. Macdonnell, P. Nolan, C. B. Larry, J. B. Lowery.

DEVOTED TO
BETTER FARMING AND
CANADIAN COUNTRY LIFE

It's Results That Count

Any Cream Separator agent may visit your home and, with a smooth line of talk, induce you to buy one of the make of cream separators he represents. After you have used the machine for a while, you may find that you have been deceived. The only way to select a good machine is to have the agent set up a machine on your farm and leave it for a free test for a month. You will then know its good as well as its bad points. There are thousands of dairymen who wish they could have had the machine they now own for a free trial. They would never have bought it. They know they have been deceived, but are unwilling to acknowledge it. Now, if you or your neighbor, or any one else you know, are anxious to better yourselves, let us know and we will send a

SIMPLEX LINK-BLADE

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A PURE BRED PIG FREE

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CIRCULATION DEPT. FARM AND DAIRY PETERBORO, ONT.

The Bacon Situation

With a view to ascertaining just what the present state of the bacon situation is, from the standpoint of the producer, Farm and Dairy is corresponding with a large number of pork producers. Early reports that have come to hand indicate that the bacon industry is in a state even worse than we had feared.

Some correspondents have placed their estimate on the number of hogs in their district this year as compared with last at one-third. Other estimates range from this up to 60 and 75 per cent.

Answers to the question "Have you raised hogs at a profit this past year?" have been varied. They range all the way from an emphatic "No" to a positive "Yes," with the great majority recounting their profits as being very small and those having been obtained only through judicious feeding and by having recourse to pasture, sugar beets, mangos and home grown grains. It is interesting to note that those who have not made profits on hogs during the past year have relied principally on mill feeds. The most optimistic replies have been received from those farmers raising pure bred hogs, where they have been able to sell their stock for breeding purposes.

WHERE PROFITS ARE MADE.

Those who figured out a profit on their past year's operations in producing pork, invariably have had recourse to home grown feeds and have relied principally on roots in winter and rape and other pastures in summer. Many of these also have had skim milk, buttermilk or whey. The reports clearly indicate that if one resorts to home grown feeds, those cheaper feeds must be relied upon and must be produced in greater abundance. Practically all are optimistic as to future prices for hogs. They rely for the most part on the present great scarcity of hogs to keep up prices. The present being the time to seed the crops that will produce pork more cheaply than raising or producing hogs this present year should not fail to take advantage of, and seed part of their acreage to rape for summer pasture and roots, either sugar beets or mangos for winter feeding.

PROSPECTS FOR HOGS.

In reply to what they considered the prospects are for hogs, many answered that unless some definite standard could be arranged as to prices, the outlook is gloomy. Others, however, looking to the immediate future, frankly state that if fed right, hogs are a paying department of the farm. The general opinion was that there is no profit in buying mill feed at present prices and that to feed such to hogs is simply money lost. One correspondent from Leeds Co., Ont. stated that it would require an expert feeder to make a profit and that there is no hope for an increase, but rather only a decrease in production for some time yet.

SUGGESTIONS FOR IMPROVEMENT.

Suggestions made towards bringing about an improvement in the bacon industry, brought out much interesting matter. Mr. W. E. Hamby, Norfolk Co., Ont., thought that more information was needed on the proper breeding and feeding of hogs, that the prices should be paid according to the quality of the hogs produced, that the short, fat, thick, Yankee, corn-fed hog should be kept out of our markets if possible, and that all Canadian bacon for export should be branded as Canadian grown. Another correspondent thought that the only way to improve the bacon industry was to get after the railroads and millers, as they are the parties who are making the hogs, and at present prices farmers cannot buy mill feeds to feed to hogs and therefore may make anything.

Mr. Owen Cougler, of Leeds Co., suggests that buyers will have to discriminate in prices and pay more for bacon hogs than for those of low type, and states that he for one is going out of raising the bacon hog and will turn to the fat type which he considers can be produced more cheaply. Mr. J. L. Dunkin, of Guelph Co., writing on the prospects for the industry, stated that it all depended on the prices we get and past experience shows that there is no means of knowing this. One thing was clear, however, that if they were to stay in business, something would have to be done to get the prices uniform so that they would not go down to from three to five cents a pound as soon as our herds are decreased, even a little. Were a commission of Canadian farmers to visit Denmark this year to investigate conditions and practices there, the results of their trip would be certain to be followed closely by our Canadian hog raisers and would be productive of much good. Watch later issues of Farm and Dairy for condensed reports prepared from those being furnished to us by our correspondents.

Exposition Sheep to Pass Quarantine

Canadian sheep may be imported into the United States from May 20 to October 10, 1909, for exhibition purposes at the Alaska-Yukon-Pacific Exposition, to be held in Seattle, Wash., from June 1 to October 15, 1909, without being subject to the 30 days' quarantine, provided they pass satisfactory inspection at the point of entry and are accompanied by an affidavit of the owner or importer, and a certificate issued by a Canadian official veterinarian, as required by Amendment 3, U. S. I. Order 142, amending Regulation of the Regulations for the Inspection and Quarantine of Horses, Cattle, Sheep, and other Ruminants, and Swine Imported into the United States; and provided further that the sheep which are not sold to remain in the United States shall be returned immediately to Canada at the close of said exposition.

The Department must be notified by the owner or importer, through the office of its veterinary inspector in charge at Seattle, of any Canadian sheep which are to remain in the United States for breeding purposes, and such sheep will be maintained in quarantine at the exposition grounds under the supervision of an inspector of this Department, who shall issue a certificate before shipment to a destination is allowed. The 30 days of quarantine will be counted from the date of entry into the United States. All Canadian sheep intended for this exposition must be shipped directly to the exposition grounds, and must not be unloaded in any public stock yards.—James Wilson, Secretary of Agriculture, Washington, D.C.

Ottawa Prize List Extended

At a recent meeting of the executive of the Eastern Ontario Live Stock and Poultry Show classes were added to the poultry prize list as follows: Black Wyandottes, Silver Unbearded Polands and Golden Unbearded Polands. Sections for A. D. V. Fowls and for Ducks were added to the sale class. When the entries in any subsection of poultry number 30 or more there will be 10 money prizes as follows: 1st, \$4; 2d, \$3; 3d, \$2; 4th, \$1.50; 5th, \$1; 6th, 50c; 7th, 50c; 8th, 50c; 9th, 50c; 10th, 50c.

The following will be poultry judges for the next show: L. G. Jarvis, Crimby, Ont.; J. O. London; Sharpe Butterfield, Windsor, Wm. McNeill, London; Geo. Robertson, Ottawa; C. F. Wagner, Toronto.

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Each Week

Vol. XXVI

Care of

Dr. H. G.

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FORMERLY THE CANADIAN DAIRYMAN AND FARMING WORLD

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FOR WEEK ENDING MAY 13, 1909.

No. 19.

Care of the Newly Born Foal

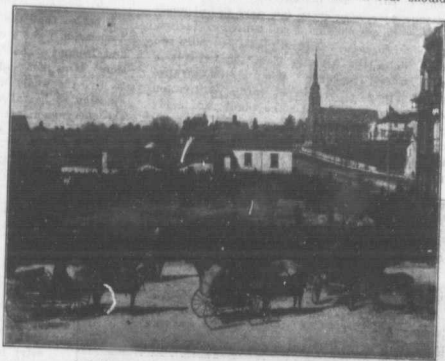
Dr. H. G. Reed, V.S., Halton Co., Ont.
In the majority of cases a foal needs no care only to be left alone and allowed to look after itself. But, sometimes the farmer finds that all is not going right and the little creature needs attention; it is generally due to the retention of the "meconium," a dark colored, waxy substance contained in the bowels at birth. An injection of warm water or oil will usually cause this substance to be expelled and in most cases answers the purpose better than the administration of oil or other purgatives. Some farmers make it a rule to give a foal at birth a dose of castor oil whether it shows any symptoms of needing it or not. The practice is bad, for a dose of oil will possibly set up an attack of diarrhoea and to that extent injure the patient.

If the mare for some weeks previous to foaling has been fed on some succulent food, there is not much danger of constipation in the foal. Foals born on pasture are seldom troubled in that way. A foal should also be closely watched till it is seen to urinate, and, if during the act some of the urine is seen to escape from the navel opening, some means should be at once adopted to arrest that abnormal discharge. A ligature around the navel cord will sometimes answer the purpose. If the cord is broken off too short for that, the application of a caustic to the parts, such as nitrate of silver, or butter of antimony, will burn a scab over the end of the leaking duct and stop the discharge. If such simple remedies fail veterinary help might better be procured, for if the condition is allowed to persist, it will in all probability cause the patient to pine away and die a lingering death. This condition is met with most frequently in colts than in fillies.

"NAVEL ILL"

"Navel ill," is the most serious disease that foals are liable to suffer from. It is often confused with the condition above referred to, but it is altogether a different trouble. It is a germ disease and requires the presence of the germ in the system to establish the malady. The navel is inflamed more or less from the fact that it is there that the germ usually finds an entrance to the system—that being the only raw spot on the body—and the fact of this local inflammation often leads to the conclusion that the navel is the seat of the disease. The germs of this disease seem to abound in many sections and if they

get into the system they generally lead to fatal results. Curative treatment is not very successful, a large proportion of the patients will die under the most careful treatment, but while curative treatment is often unsatisfactory; fortunately preventive treatment is easy and usually very successful. It consists in destroying the germ before it gets into the system, by the application of a 10 per cent. solution of carbolic acid or some other disinfectant to the navel opening as soon as the foal is born, and repeating the application twice a day till the parts heal over, when danger from infection from that quarter is over. This healing-over process will usually take place in from ten to twelve days. This simple precaution has saved the life of hundreds of foals. Every farmer who has a mare in foal should



Awarding the Ribbons at the Barrie Spring Stallion Show

We are apt to underestimate the value of the spring stallion show. It is a great feature in inspiring healthy competition amongst horsemen locally, and thereby it tends towards actual progress in elevating the standard of the horses raised.

provide himself with the means of treatment before hand, more especially if the disease has been prevalent in the section in previous years. There is much less danger from this disease if mares foal out at pasture than if they are in the stable or around the barnyard. When a mare is expected to foal in a box stall great care should be taken to see that everything around should be made thoroughly clean. The floors should be thoroughly cleaned and disinfected, also the walls and manger. A plentiful supply of good clean straw should be provided and all surroundings kept scrupulously clean.

Some foals are born in a weakly condition, are unable to stand and suck, but still have vitality enough to pull through all right if given a good chance. Such a foal should be helped to its feet and allowed to suck at least every two hours night and day until it is able to get up and help itself. Many a foal is allowed to die that might have been saved by a little more attention of this kind, especially at night.

Sound Advice From a Horse Man

Most farmers make the mistake of breeding from mares that they cannot sell. They reap the reward of their folly in that they cannot sell the progeny either, at least for anywhere near the price that first class stuff will bring. Such were the observations of Mr. J. F. Staples, of Durham Co., a well known horseman who recently called at the office of Farm and Dairy.

"One can make as much money out of horses as out of cows," said Mr. Staples. "The cows, we must admit are sure money makers but then it requires hard work to make them yield the products from which to get that money. During the past year, I sold nine horses that realized close on to \$2,000. These were, all but one, of my own breeding. Raising horses is just a side line on our farm. We have cows and everything else in general that one would expect to see on a farm where mixed farming is practised. The oldest of these nine horses was a three year old, another was a yearling and another a two year old. One pair realized \$425. One was a ridgeling and necessarily was sold at a sacrifice, bringing \$140. Another pair brought \$400, while the remaining four realized \$925, thus totalling in all \$1890.

"These results did not come by the use of high priced mares. I started with a well bred mare that cost me \$35. Horses were cheap at that time, which accounts for me getting her so reasonable. She was a good mare with good breeding and was the originator of my Clyde stock. I aim to sell all surplus stock at any time that I can find a buyer who is willing to pay for good stuff.

RAISE HORSES FOR MARKET.

"If we would meet with the most success in horse breeding," continued Mr. Staples, "we must raise them for the market, not for ourselves. The majority of farmers do not want a big heavy horse, nor do they want a light horse. They want a general purpose horse. Such horses have proved to be the most useful on the farm, but it does not pay to raise them. They are what we call misfits. We have enough of them already. We can buy any number of that kind, so we should devote our attention to breeding a more profitable sort. From our ordinary operations we will get enough of these misfits, and if we do not (and in that case we may consider ourselves lucky) we can buy enough to fill our requirements.

"Probably the best horse I ever owned is one that I have on the farm now. I bought him when three years old for \$105. He was just ready for the harness. He was a cross bred. His owner had crossed his mare and got as a result a tough little nut—a very good sort, but probably worth at the most only \$150 on the market. His owner certainly made a mistake. At a slightly increased first cost he might have secured a colt worth \$200 or over, at the age of three years.

PROFITABLE TO BREED.

"While the hackney is not a farmer's horse, it is probably one of the most profitable to breed. The hackney is the gentlemen's horse and he it

is that we get a good price for. Again, the hackneyed from one to two years earlier than the road horse, which is a factor worth considering.

"It is to be regretted that farmers and breeders, as a rule, do not use more care and better judgment in the selection of sires. These men would meet with a good share of success if they would but pattern off men that have made a success of horse breeding. One thing," concluded Mr. Staples, "is an absolute certainty, those who look too much to the first cost of the colt—the service fee—will not meet with the success they might."

Potato Growing in Ontario

W. J. Westington, Northumberland Co., Ont.

The area devoted to potatoes within recent years has been decreased by 50,000 acres and the product by 6,000,000 bushels. In 1906, there were fewer potatoes produced than in any former statistical year. This is a matter for serious reflection, and has prompted me to write a few words on the subject of potato growing. There is no more profitable branch of farming in the Midland portion of our fair Province of Ontario, than the production of the potato, that necessary article of food.

In order that we may have an abundant crop, the land for potatoes should be of a deep loamy nature and of a sandy texture. Heavier soils do not produce potatoes as mealy or of as good a flavor as the lighter soils and in such soils they are much more susceptible to rot or fungus diseases. Potatoes may be planted after almost any grain crop, but clover or tough sod is preferable. After the grain or other crop has been harvested the land should be plowed and frequently harrowed during the autumn season to consume the moisture that has been placed in nature's store-house for the benefit of vegetable life. The land should be plowed again a good depth just previous to the freezing up season, as preparing the land in this way tends to kill quack grass and other noxious weeds that have so largely taken possession of our fields.

In spring when the land becomes friable it should be cultivated with a spring-tooth cultivator and immediately harrowed so as to pulverize the land. Such cultivation should be continued as often as convenience will permit. About 20 loads to the acre of rough barnyard manure should be applied with a manure spreader and plowed down with an ordinary plow. Use a skimmer attached to the plow so as to cover all particles of straw and thus cause it to decompose quickly. Applying manure in a green state in much more profitable than to allow decomposition to take place in a manure pile as in that way much of its fertilizing value would escape into the air in the form of ammonia. After plowing, the land should be harrowed level. Then furrow the ground out with the plow from four to five inches deep, and have the furrows 32 inches apart.

Plant your potatoes between the 22nd of May and the 7th of June. Choose the later varieties that "lose least susceptible to fungus diseases and that are smooth, well matured, shallow eyed and of medium size, with fine, white skin and flesh. Potatoes that have lost none of their vitality by sprouting should be taken from a cool, dark cellar and planted immediately after being cut. Have no more than two eyes in each set and place the sets in the ground 18 inches apart. Discard ill-formed, scabby potatoes, or portions of ones that may have been injured in the digging process. Choose potatoes true to the type or form desired.

COVER AS SOON AS PLANTED

Where a planting machine is not used it is desirable to cover them immediately with a harrow. Continue harrowing every few days to kill weeds and stop the evaporation of soil moisture. Harrowing should be done until the plants are fully two inches above the ground, then the cultivation should be used frequently. When possible arrange to cultivate after sowers of rain. Cultivation should be continued until the plants are ready for hilling. Hill the potatoes lightly, if at all. Shortly after hilling the space between the rows should be cultivated again with a narrow gauge cultivator so as to not injure the rootlets, using

the hiller as before. After this the hoe should be used to cut out any weeds that may still remain.

ONTARIO'S REPUTATION

Ontario consumes between 14,000,000 and 15,000,000 bushels of potatoes annually. It is a source of regret that owing to the improper grading by shippers, large, small and indifferent potatoes of all colors, shapes and sizes, are promiscuously thrown into cars and shipped to their places of destination, regardless of anything but the profits to be obtained. Ontario's reputation is thus sacrificed. We do not receive as much for our product by 12 cents a bag as potatoes grown elsewhere. Just fancy the city of Toronto alone consuming between 2,000 and 3,000 bags a week, and drawing 80 per cent. of these for nine months of the year from a maritime province, namely New Brunswick, where more discretion is exercised in planting and in shipping the right sorts, and where they keep in view the object of obtaining and retaining the choicest markets in this vast Dominion of Canada. As this is a subject worthy of consideration, why should not we have farmers of Midland Ontario, put forth an effort to regain our former good reputation by growing and placing upon the market an article of food which should not only tempt the masses, but the epicure? We believe that our climate, soil and market advantages, are sufficient to place us in a position to compete with potato growers anywhere in Canada in supplying most of our Ontario markets.

Steps in the Right Direction

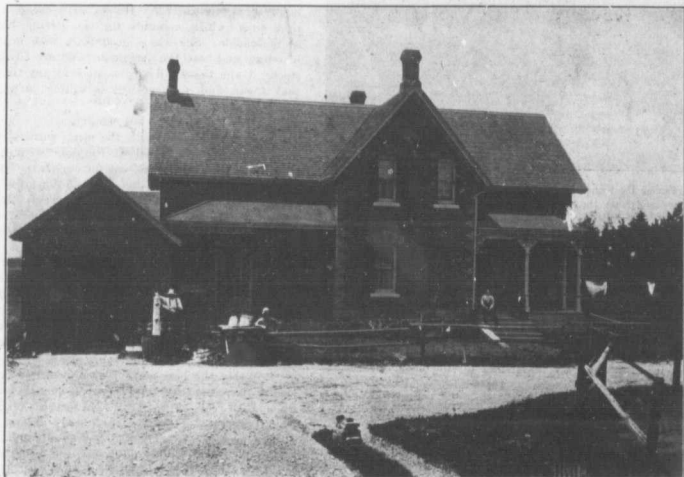
G. Boerna, Saskatchewan District, Sask.

I notice that the Dominion Swine Breeders' Association want a commission to go to Denmark and Ireland. That is a step in the right direction. It is not sufficient nowadays for farmers to give the whole of their time and study to the question to be taken into consideration. Should the government ultimately not be able to see its way clear to send a commission, or send a commission of men whom the swine breeders would satisfy, it might be well that the Association endeavor to do so themselves.

Seeing, however, that the highest prices are paid at home (by the consumers any way) I hope the home market will also be taken into consideration.

Forestry Meetings Indorsed.—I have read the suggestion published recently in Farm and Dairy that forestry meetings should be held in the counties in Ontario where reforestation is needed. The Canadian Forestry Association will be glad to cooperate in any way possible in connection with these meetings. Our Association considers it very important that attention should be given to the reforestation of the denuded lands which are fitted for agricultural purposes. Every stick of wood that we can raise in Canada will be required. It is a poor commentary on our civilization that we let so many acres lie useless when they might be made productive and supply one of the most needed materials. The municipalities having lands of this character should undertake to have them reforested as they might be a source of direct profit to the corporation.—R. H. Campbell, Secretary Canadian Forestry Association, Ottawa, Ont.

When the sow gets her full growth, her litters will be large, healthy and more uniform.



A Home on a Farm that Made a Good Showing in the Last Dairy Farms Competition Held by The Canadian Dairyman

Farms with the finest homes do not always make the best showing in a dairy farms competition. The illustration shows the farm home of Mr. James O'Leary, of York Co., Ont., whose farm made a very good showing in the dairy farms competition held two years ago. Mr. O'Leary had only been on the farm about three years. During that time he had worked many improvements, including gravel walks and drives. He had removed much fencing, thereby converting several small fields into large ones, and expediting farm work. Do not hesitate to enter your farm in the dairy farms competition because your home may not be as grand as some that you know of. If other things on your farm are right, you will obtain a high score in the competition. Get your neighbors interested also. Show them the announcement on page seven of this issue. It will be well worth while to have a farm in your section win a prize in our Dairy Farms Competition.

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Where Money is Lost

A striking example of the money that is lost by farmers who send good milk to factories where the cheese makers accept inferior milk, was furnished by Chief Dairy Instructor G. G. Publow, at a meeting of dairymen held in Peterboro recently. "Last year," said Mr. Publow, "one of our dairy instructors conducted a test in a cheese factory to find how much money is lost where bad milk is accepted at the factory.

"This instructor went to the factory on July 31st. On that day all the milk that was delivered by the patrons was accepted. In all 9,795 lbs. of milk were received, from which 791 lbs. of cheese were made. It took 12.38 lbs. of milk to make a pound of cheese.

"The following day, August 1st, all the milk that was not in good condition was refused. The milk that was accepted weighed 9,251 lbs. From it 841 lbs. of cheese were made. Thus, it required only 11.03 lbs. of this better milk to make a pound of cheese. Fifty lbs. more cheese were made although 514 lbs. less milk was used. Had all the milk accepted on July 31st been as good as the milk that was accepted on the following day, 96 lbs. more cheese might have been made. Valued at 12c. a lb., it means that the patrons of that factory lost \$11.52 that day because poor milk was accepted.

"These figures show how necessary it is that cheese makers shall refuse poor milk when it is delivered at the factory. They also show that farmers who deliver good milk at the factory should back up their cheese maker in refusing bad milk. One can of bad milk, when mixed with the good milk delivered by the other patrons of a factory, is liable to cause a loss of many dollars to the best patrons of the factory."

Sow Pure and well Selected Seed

T. G. Reynor, B.S.A., Seed Branch, Ottawa.

The season for putting in cereal grains is becoming very late, hence the necessity for a word of caution about the seeds we sow, for the Good Book tells us that, "Whosoever a man soweth that shall he also reap." This is not only true in our own lives, but it is abundantly true in farm practice. Has not most of the seed life on our farms come from sowing dirty seed grain and more especially foul clover and grass seed? There is little or no excuse for sowing dirty oats, barley, wheat or peas; but there may be some excuse for sowings small seeds with more or less weed seeds in them, as many weed seeds are rather hard to detect especially in clover and alsike seeds. Nevertheless for our mistakes or ignorance we have to suffer in this regard as much as though it were a wilful act.

Now while we are waiting for the land to dry, would it not pay us to take another very careful look at the seeds we are going to sow? They should not only be well selected, but as pure as it is possible to get them. By putting seeds through a good fanning mill three or four times with plenty of wind and over good screens, most of the light and small seeds will be eliminated and we will have only the large plump seeds such as will produce strong vigorous plants. Such plants may be able to make up for lost time in their growth owing to the late season.

HAND PICKING

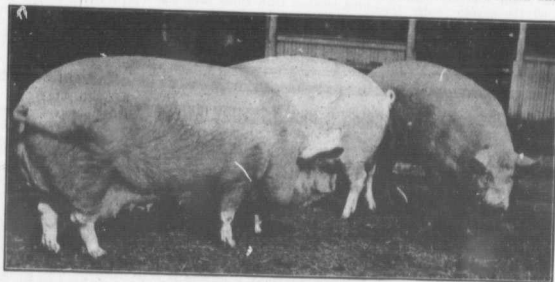
Where one is compelled to sow seed grain that contains some wild oats would it not pay him to spend time enough to hand pick over a few bushels, at least, from which he could keep his seed for another year if he could sow them on a piece of land uninfested with wild oats, or so handled that the wild oats would not mature in the crop? Wild tares, wild mustard, purple cockle and other foul seeds could be eliminated at the same time. If this hand picked seed were sown on a piece of clover sod or hoe crop ground that had been well cultivated during the past year and had not been plowed so deep as to bring up the sleeping weed seeds, then a man could reasonably expect

to harvest pure seeds, and thus purify his grain crops. Where pure oats, or other grain crops were desired, the other varieties of grain could be eliminated at the same time.

If users of small seeds do not feel themselves competent to make a critical examination of the small seeds for weed seeds, they should send one ounce samples down to the Seed Branch, Department of Agriculture, Ottawa. Such work is done there free of charge and not even the price of a postage stamp is required to send the sample and get a purity report on the seeds to be sown.

BLADDER CAMPION

In the Peterboro district there is great danger of getting bladder campion seed in locally grown seeds, as much of that most pernicious weed is prevalent throughout the district. I have examined seeds offered by seedsmen and have found quite large quantities of this seed in it. While the Seed Control Act does not blacklist it among the 23 others, I would consider that a dealer who would knowingly sell me clover seed with that foul seed in it, could not do me a much greater injury.



Large Yorkshire Sows of the Approved Bacon Type

Experiment stations and practical farmers have demonstrated conclusively that the bacon hog can be produced as economically as hogs of the fat type. The ability of a particular hog to make economical gains is a matter of individuality rather than of breed. The sows illustrated took first prize at Toronto, 1908, and were owned by Mr. D. C. Flatt, of Wentworth Co., Ont.

If I found it out, he wouldn't get a second chance. Where one farmer buys of another farmer in a district where such weeds grow he is in great danger of getting such weeds unless he is a good judge.

Among other weed seeds to look out for are catchfly or sticky cockle, ribgrass or buckhorn, ragweed, wild mustard, false flax, etc. If you do not already know which these weeds look like consult the Farm Weeds Bulletin in your School or Public Library at once. If the bulletin isn't there, see that one is provided forthwith by the Seed Branch, Ottawa.

How to Transplant a Tree or Shrub

W. T. Macoun, Horticulturist, C.E.F., Ottawa

When trees die after planting, it is usually due to carelessness in transplanting. Some kinds of trees transplant much easier than others, and some of those that are planted more commonly than others, such as the hard maple and American elm, are among the easiest to transplant, hence one is likely to become careless. Trees and shrubs should be dug as carefully as possible so as to retain a large proportion of the roots. The more roots there are the surer one is of getting the tree to live. The roots should not be allowed to become dry from the time of digging until the trees are in the ground again. They may be prevented from drying in transit by protecting them with wet moss or wet sack. If the roots of evergreens, especially pines, become dry even for a short time the trees are almost sure to die.

A hole should be dug large enough so that the roots may be spread out and not crowded or doubled up, and deep enough so that the tree or shrub when planted will be from one to two inches deeper than it was in the woods or nursery. By plant-

ing a little deeper than it was before, provision will be made for a little heaving which often takes place in the winter, but too deep planting is almost as bad as planting too shallow. It is important to have the tree at least as deep as it was before and, as stated, best to have it a little deeper. The soil when thrown out of the hole should be put in two separate heaps, the surface or good soil in one and the subsoil in the other. If the soil is all poor, to get the best results sufficient good soil should be brought to fill the hole. The tree is now placed in an upright position and the good soil is thrown or sifted in at first about the roots of the tree. As it is important for the soil to come in close contact with the roots it should be pressed against the tree with the foot, when thrown in. If there is not enough good soil available to fill the hole the poorer soil may be placed on top of the good. Manure should not be put in the hole with the soil as it may burn the roots and make the soil so loose that it will dry out easily. Better apply the manure to the surface of the ground in the autumn and dig in

the shortest of it the following spring into the surface soil.

After planting, the tree or shrub should be headed in well, the amount of heading in depending upon the amount of roots. If a large proportion of the roots are cut off a large proportion of the top should be removed, otherwise the large leaf surface will transpire so much moisture that the tree will dry up before the roots begin to take in more. This is why shade trees are cut back so severely when planted, but it is not necessary to reduce the trees to mere poles as is too frequently done, causing a bad crotch in the tree later on where the stub dies back and where rot sets in. Evergreens are not headed back like deciduous trees as it would disfigure them too much and they have usually a fair supply of roots.

Before leaving the tree the surface soil should be loosened again so as to leave a thin mulch of loose soil on top which will prevent the moisture evaporating from the soil so rapidly as it would do if it were left hard. The surface soil should be kept loose throughout the summer and the best growth will be obtained by keeping a circle of from two to three feet or more in diameter around the tree free of grass, where the soil will be kept loose and the rain and air find a ready entrance. If trees and shrubs are transplanted with care they should usually live. Early in the spring is the best time to transplant most kinds of trees and shrubs, evergreens included. Evergreens may be transplanted in summer, but greater precaution must be taken to do it successfully, and we do not recommend it. Both evergreens and deciduous trees may also be planted in the autumn successfully, but on the whole they do not do so well as if planted in the spring.—Extract from evidence given before committee on agriculture.

Does Under-Drainage Pay?

Prof. Wm. H. Day, O. A. C., Guelph
In attempting to give Farm and Dairy a "dollars and cents" view of the value of under drainage I would say in advance that of the great number of farmers who do tiling comparatively few keep sufficiently close accounts of all the expenditures, and the increase in crops to enable them to give us a full statement. A few, however, have been able to give us exact information, some of which has been used in illustration before, but in this article I shall present three new examples.

Mr. Wm. Bell, of Washago, Simcoe Co., writes as follows:
"In reply to your letter of enquiry I will make the following statement: In the fall of 1907, after the Department of Physics surveyed for me, I dug and laid the main drain. I put 6 inch pipes into it 2,200 feet long. Then I drained with smaller pipes into the main drain. Of course this long main drain was also intended to carry off the surface water from land that was too low to underdrain, and should not be charged entirely to the eight acres that I underdrained. The eight acres had produced

nothing previously. Last summer I grew a fairly good crop of oats which yielded 33 bushels to the acre, 33 bus. at 45 cents equals \$14.85 or \$118.80 for 8 acres.

COST OF DRAIN	
6,000 tile	\$39.40
Freight on same	\$16.50
Hauling tile from station, 15.00	
Four men for a month digging and laying drain,	\$160.00
Total	\$290.90

From this we see that, making a small allowance for the portion of the cost of man not rightly chargeable to this eight acres, the whole cost of draining this block of land would be returned in two years at most. As a matter of fact the second year's crop off the land will be better than the first, for drains do not react the first efficiency for two or three years, especially where the land has long lain wet and is sour and close in texture. Drainage corrects the acidity and opens up the soil. These drains were laid from five to six rods apart, and nothing smaller than three inch tile was used."

EARLY DRAINING

Here is an example of earlier date: Mr. Joseph Lapp, of Cedar Grove,

York Co., in the year 1893, drained five acres systematically. His son writes for him as follows:

Cost per acre of draining with 2 in. tile, 2 ft. 9 in. to 3 ft. deep, \$7.41.
Increase of crops, 1894, not less than 20 bushels of barley per acre, at 36 cents per bushel..... \$7.20.

He continues: "Had this work been done at the prices prevailing here during the last few years, and the same increase of crop sold at the price at which we bought feed barley last fall, the figures would be as follows:

Cost of drain per acre..... \$11.87
Value of increase of crop..... 20 bus. barley at 55 cts. a bus. 11.00
The draining done in 1893 amounted to 110 rods on five acres or 22 rods an acre. The cost is figured on the highest price asked for work and material, both in 1893 and at the present. One-tenth of the above increase in crop would pay almost 10 per cent. on the investment."

Three points in this example are worthy of comment: first, 22 rods an acre means a distance of 120 feet between drains, which is much farther apart than is the general practice to-day. Second, two inch tile were used; to-day this size of tile is seldom used, owing to the fact that they

fill so readily with sediment. Third, the drainage paid for itself in one year.

IN SPECIALIZED AGRICULTURE
The preceding samples illustrate the results of drainage in general farming in years gone by and also at the present time. Let us look at a case of specialized agriculture. Parts of Kent county are peculiarly adapted to the production of beans. Two brothers, one James and William Clayton, live on a drainage farm near Cedar Springs, Kent Co. In 1901 the former drained 12 acres lying along the line fence, the latter left his undrained. The former sends us the following information:

"Cost of draining 12 acres, \$168.01. In 1902 eight acres on each side of the line was put in beans. The results showed that:

8 acres of drained land gave 302 bushels which sold for \$456.
8 acres of undrained land gave 24 bushels which sold for \$37.
That autumn both places were sowed to fall wheat. The next season 8 acres of drained land gave 45 bus. an acre; 8 acres of undrained land gave 20 bus. an acre.

Both seasons were wet.
The comparison ends here for the next year there was drained land on both sides of that line fence. Moreover, drainage became general in that locality for the land lay beside the road where every passer by could see for himself, the difference, a difference so great that "he who ran might read."

Does underdrainage pay?

The Feeders' Corner

The Feeders' Corner is for the use of our subscribers. Any farmer is invited to ask questions, or send them to the editor. All questions will receive prompt attention.

Raising Calves on Skim Milk

Can calves be raised on separated milk? Please tell me how—O. E. H., York Co., Ont.

Calves can be raised on separated milk. It is not advisable to feed separated milk from the start. The whole milk, preferably that from the calves own mother, should be given for the first three weeks, at which time part of the ration may be substituted with skim milk. The change from new milk to skim milk should be made gradually. Avoid feeding more than from three to four quarts at a feed. Feed twice a day. Induce the calf to eat as soon as possible. For a grain ration a mixture of bran and whole oats will answer nicely. Well cured clover hay should be given in quantities that they will clean up. The trouble with raising calves on separated milk arises from the amount of curd, irregularity in feeding and feeding the milk cold or sour. Strict cleanliness is essential. Unless the milk is fed free from the separator it should be warmed before feeding.

Corn and Bran for Cows

I want to ask you a few questions. My cows are soon to freshen and my rough corn stalks and clover hay mixed. How would you mix a ration? How would corn at \$28 a ton and bran at \$24 a ton mixed equally be for a ration for milking cows?—C. E. M., Oneabruk Centre, Ont.

With such roughage as mentioned, I would suggest that to the equal parts of bran and corn meal another equal part of oil cake be added. If oil cake meal or gluten meal can not be secured, then I would suggest mixing the meals, 200 lbs. corn and 100 lbs. bran and feeding rather more liberally than if oil cake meal had been added in the place of the extra bran.—J. H. Grisdale.

Renew Your Subscription Now.

FARM
Crops for

What would piece of acre out, the green Would it be clover alone I want an ea second time in in good cond year.—Rev. M.

If the land I would ad ment; Plow row, say two es deep. W buckwheat, sown as possi Allow to grow or ten days, a Roll harrow every day of than the lov about eight to grow all fl or calves, or plough the f deep enough when brought in of barn after the plow t then a few w plating seed or would li of clover. S ing of oats, els an acre. and 10 lbs. roll well after ed land thro J. H. Grisdale.

Utilizing M


As I have d your advice remind giving you ing matter. I h ure left after idea has been to after feeding to seeding down the should like to milts would ac best do with that would be to apply. Our winter killed, of roughage for the best crop clover hay? I according to pr you.—H. O. M.

I would adv barley rather than wheat. If you state in the letter, the quantity of forage, then the quantity of a mixture of 80 lbs. of alfalfa and 20 lbs. of clover, give a dressing of manure then seed. If first to advance later, but be evenly and to ing.

Seeding for


I have an acre out a crop of oats last year. This year I want to use it for pasture for my cows. What you thing to seed it with? How much timothy kinds, and how with it, to produce crop this year I cut green for food peas with them. Please say—B. C. C., R. 1, Clear-B. C. C., R. 1.

Seed down your clover, two lbs. lbs. red clover, 18 lbs. blue gr



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FARM MANAGEMENT

Crops for Conditioning Sandy Land

What would you advise me to sow on a piece of sandy land that has been run out, the green crop to be plowed under? Would it be a good idea to sow it to clover alone, or to mix with some peas? I want an early crop for I may sow it a second time and plow it down to it in good condition for a clover crop next year.—Rev. M. V. B. Lachute, Que.

If the land is very sandy indeed, I would advise the following treatment: Plow with a very shallow furrow, say two and a half or three inches deep. Work thoroughly and sow to wheat, one bushel per acre, as soon as possible say first week in May. Allow to grow until it blooms for a week or ten days, then plow under with three and a half to four in. furrow. Roll harrow and cultivate every day every day or so for a week or two, then seed down with Dwarf Essex rape about eight pounds an acre. Allow to grow all fall, pasture off with swine or calves, or sheep, or dry cows and plough the following with furrow just deep enough to cover the buckwheat when brought up. Give light dressing of barn yard manure if possible after the ploughing. If not available, then a few wood ashes or a light application of some commercial fertilizer would likely have the same effect of clover. Sow clover with light seedings of oats, say one and a half bushels an acre. Sow 12 lbs. red clover and 10 lbs. timothy. Sow early and roll well after sowing, having worked land thoroughly before sowing.—J. H. Grisdale.

Utilizing Manure—Supplemental Forage

As I have derived much benefit from your advice re cows I hope you will not mind giving your opinion on the following matter. I have a good supply of manure left after manuring root land and my idea has been to apply a thin coat on land after seeding to oats and barley, and also seeding down the same piece of clover. I should like to know whether any had results would accrue. If so, what had I best with it? I have some hay land yet that would benefit by it if not too late to apply. Our clover has nearly all been winter killed, and I am rather short of roughage for the cows. What would be the best crop to sow to supplement the clover hay? I am putting in sowing crops according to printed directions issued by you.—H. C. Munro, B. C.

I would advise applying manure on barley rather than on oat crop if grain is wished for. If, however, as you state in the latter part of your letter, the production of a good quantity of forage is an important point, then I would suggest the sowing of a mixture of oats, 100 lbs. peas, 80 lbs., at the rate of three and a half bushels an acre. Just before seeding, give a light evenly applied dressing of manure, harrow in and roll the seed. If seeding could be done first to advantage, then apply manure later, but be careful to spread very evenly and to give only a light dressing.

Seeding for Permanent Pasture

I have an acre of land from which I cut a crop of oats and peas (cut green) last year. This year I desire to use it for pasture for cow or horse. Kindly inform me what you would consider the best thing to seed it with this spring, viz., clover, and how much of clover to mix with to produce a good pasture. For crop this year I thought of sowing oat cut green for fodder. Would you suggest peas or them also? The soil is heavy clay.—B. C. C. Richmond, Ont.

Seed down with two pounds alsike clover, two lbs. white cover, four lbs. red clover, six lbs. timothy and 18 lbs. blue grass per acre. This

mixture is suitable where it is intended to leave in pasture for several years. If it is intended to leave in pasture for two or three years only, then the amount of blue grass might be cut in half and the timothy slightly increased.

In preparing the land, care should be taken to have it in perfect tilth before sowing grass seed. If very lumpy or rough it would be well to roll and harrow alternately once or twice before seeding. Sow seed very evenly, which may be best done by thoroughly mixing different kinds of seeds, dividing the whole thing into two equal parts and going over the whole piece. Sow one half as evenly as possible so as to cover the whole field going lengthwise and the other half of the seed to cover the whole field going crosswise.

Use peas and oats as a nurse crop two and a half bushels an acre, two

bushels oats and one half bushel peas. Watch carefully to see that the crop does not fall and smother grass. Cut at first signs of falling.—J. H. Grisdale.

Re-Seeding—Land for Alfalfa

1. I have about 20 acres of pasture that was grub eaten or burnt in spots that you could easily remove in large blocks. Will it be necessary to re-seed this spring, and if so how many bushels will be required, kind of seed, and best time to do the same?

2. Would well drained new ground be a suitable soil for to try alfalfa in? Where can I obtain a culture, the price of the same and amount required to seed a quarter of an acre?—G. M. Bruce Co., Ont.

1. Land in such a condition as described would, I fear, have to be well worked up for a season before any satisfactory catch of grass seed need be looked for.

2. Land to be suitable for alfalfa, must not only be well drained, but must lie so as to insure that water shall never lie on the surface. If the land is sweet, that is, does not turn blue litmus paper red, there is no reason why alfalfa would not do with of course the previously stated condition noted. Culture can be obtained for a small fee of 25c for enough to treat one bushel of seed from the Ontario Agricultural College, Guelph, Ont.—J. H. Grisdale.

Pigs given away, for clubs of seven new yearly subscriptions. Write Circulation Department, Farm and Dairy, Peterboro.

I am a reader of Farm and Dairy and must say that I like it very much. It is first class in every respect.—S. W. L. Stuart, Selkirk Co., Man.

Prize Farms Competition

FARM AND DAIRY, Peterboro, Ont., the only farm and dairy paper published in Canada, has arranged for the holding of a great competition throughout Ontario during 1909, 1910 and 1911, to decide which are the best dairy farms and dairy farmers in the Province. During 1910 and 1911 a portion of Quebec may be included in the competition.

60 GOLD AND SILVER MEDALS

Ontario, excepting New Ontario, will be divided into four districts. This year (1909), five gold and ten silver medals and handsome diplomas will be offered for the best farms in each district. The districts will be approximately as follows:

DISTRICT No. 1.—That portion of Eastern Ontario lying East of a line running North of Kingston.

DISTRICT No. 2.—The counties in Eastern Ontario between Kingston and Yonge St., Toronto.

DISTRICT No. 3.—Western Ontario, North of a line running from Hamilton to Goderich.

DISTRICT No. 4.—Western Ontario, South of a line running from Hamilton to Goderich.

These districts are subject to revision after the entries have all been received, to facilitate the judging of the farms.

JUDGING THE FARMS, THE POINTS OFFERED

The farms will be judged twice; once in July and once in December. All departments of the farm will be included in the competition. One thousand points will be offered, subdivided as follows:

House, 150; viz., plan, finish and approaches, 25; lawn, 15; garden and orchard, 85; interior arrangement, 30; sanitation, 20; education, 25; total 150.

Farm buildings 150, viz., provision and size, 25; location, 25; condition, 20; neatness, 20; convenience, 25; light and ventilation, 25; yard, 10; total 150.

Live Stock 200, viz., number, 40; quality and condition, 40; breeding and methods of breeding, 40; feeding, 20; poultry, 15; horses, 30; swine, 15; total 200.

Crops 200, viz., yield and condition, 75; freedom from weeds, 75; suitability, 50; total 200.

Farm Management 150, viz., arrangement of fields, 20; rotation, 25; ice and water, 20; fences, ditches, roads, etc., 20; workmanship, 25; preservation of manure, 20; book-keeping and records, 20; total 150.

Machinery 75, viz., supply, 25; repair, 25; housing, 15; character, 10; total 75.

Permanent improvements, 75; total 75.

Grand total, 1,000.

The farms in each district scoring the highest number of points will be awarded the prizes. During 1910 and 1911 the prize winning farms this year will be allowed to compete in a final competition to decide the best ten dairy farms in the Province.

THE RULES

1. Farms must contain at least 90 acres. The whole farm must be entered. Swamp, stony or poor land cannot be set out but the judges will have power to leave out the use of their discretion they so decide.

FARM AND DAIRY, - Peterboro, Ont.

2. Farmers with 90 acres of land must have ten cows, 200 acres of land, 15 cows; 300 acres of land, 25 cows; and over 300 acres, 25 cows. The competitors must be sending the milk or cream of that number of cows at least, to a cheese factory or creamery, or to the city, or making it into butter or cheese.

3. Only practical farmers will be allowed to compete. If necessary, competitors will be required to furnish proof that their chief occupation is farming, and that they have been engaged in farming principally, for at least five years previous to the competition.

4. To assist in defraying the expense of the competition there will be an entry fee of \$2.00. Competitors will be expected to join either the Eastern or Western Ontario Dairyman's Associations.

5. Entries must be sent to H. B. Cowan, Farm and Dairy, Peterboro, Ont., with the entry fees, on or before June 15th, 1909.

6. Successful competitors will be required, when asked to do so by the judges, to furnish essays on any two features of their farm work that may be called for. These, however, will not be counted in the awarding of prizes.

7. The committee of management reserves the right to refuse the entry or entries of farms, the acceptance of which it may deem would be unfair, owing to special conditions, to other competitors. These rules may be extended or amended if the committee deems such action to be in the best interests of the competition.

CONTRIBUTORS

The holding of this competition has been materially assisted by a contribution of \$250, that the committee of management has received from Dr. J. W. Robertson, principal of Macdonald College, Quebec, and by one of \$150, received from the Eastern Ontario Dairyman's Association. Other similar contributions will be appreciated.

COMMITTEE OF MANAGEMENT

The following well known farmers and dairymen have kindly consented to assist Farm and Dairy by acting on the Committee of Management that will have charge of the Competition: Chairman, Henry Gillespie, Manilla, Ont., and George A. Gillespie, Peterboro, Ont., representing the Eastern Ontario Dairyman's Association; D. A. Dempsey, Stratford, Ont., and S. R. Wallace, Burgessville, Ont., representing the Western Ontario Dairyman's Association; W. W. Ballantyne, Stratford, Ont., President Dominion Ayrshire Cattle Breeders' Association; B. Malroy, Belleville, Ont., President Canadian Friesian Cattle Breeders' Association; W. P. Bull, Millgrove, Ont., President Dominion Jersey Cattle Club; D. C. Platt, Millgrove, Ont., President Dominion Swine Breeders' Association; Simpson Bennis, Toronto, Ont., gold prize dairy farmer; R. F. Hicks, Newtonboro, Ont., gold prize dairy farmer; Gordon Gooderham, York Mills, Ont., and W. G. Ellis, Toronto, Ont.

For further particulars, entry forms, etc., write the Secretary of the Committee, or

The Cultivation of Orchards

G. H. Carpenter, Wentworth Co.,

Although feeling may differ as to the best methods of cultivation, there are some principles that every grower should understand. The chief objects of cultivation are to furnish our trees with food and the proper conditions of growth. In the early days of farming and fruit growing there was plenty of natural fertility in the soil; now we have to replenish the soil, besides making the fertility already there, available. Tillage is needed to conserve moisture.

We must study the soil and select one suitable to the kind of trees we wish to plant. The soil must be properly prepared previous to planting. It should be naturally well drained; if it is not, we must resort to the drainage. Rolling soils need underdraining and all such things are level. Shallow plowing in the spring should be practised, and then frequent shallow cultivation during the season.

A young orchard may be inter-cropped, but this should not be done too much, as these crops take a considerable amount of food from the trees. The orchard should not have sod crops or hay grown in them. They should be cultivated constantly till the end of July or middle of August, then a clover crop should be sown.

During the first few years of an orchard the earth should be plowed deeply to open up the soil. The extension disc and cutaway harrows are excellent implements to use, especially in orchards of low-headed trees.

Hoop crops are excellent for an orchard, such as turnips, potatoes, etc.; rape is also good. Some people grow nursery stock there, but it makes similar demands on the soil to orchard trees; hence, in order to do this fertilizers must be used. Peach and plum trees, etc., can be cropped two or three years and apple orchards for seven or eight years. Orchards should not be left in sod except on side hills.

A cover crop adds humus and affords protection in winter; this crop should not be sown too early in the summer. If there is a heavy growth before winter it must be turned under early in the following spring. Clovers are very beneficial for this purpose. Crimson clover has been the best, but its roots tend to rot. Hay vetch makes a capital cover crop. Rye can be grown almost anywhere. Cow peas are good but tender in winter. Field beans and peas are also grown to some extent.

The Crown Gall of the Apple

Crown gall is a term applied to certain warty outgrowths or excrescences upon the apple, pear, peach, raspberry, etc., forming chiefly on the parts below ground. On the apple these growths are more apt to occur on grafted trees but they may form at any place where the roots have been injured in transplanting, etc.

Recently, Dr. Erwin F. Smith and his associates in the Bureau of Plant Industry, U. S. Department of Agriculture, have demonstrated conclusively that crown gall is caused by a specific bacterial parasite. Moreover they have shown that it is very omnivorous in its tastes, being able to cause warty outgrowths or galls on a surprising number of different and unrelated species of plants when these plants are inoculated with pure cultures of the organism. Galls have been produced in this way upon the following named plants: Peaches, almonds, apples, hops, Paris daisy, walnut, grape, radish, tomato, raspberry, and others.

Not long ago the Maine Experiment Station purchased 60 apple trees from a leading New York nursery man. The package in which they

were shipped bore a tag stating that the orchard from which they came had been officially inspected and found free from disease. Three out of the 60 trees or five per cent. of the shipment had well developed crown galls upon them. This experience indicates that every orchardist should very carefully inspect all stock which he purchases for setting. This warning all trees showing evidence of crown gall should be either returned at once to the shipper or burned, and future orders placed with nurseries who can and will furnish trees free from disease. Under no condition should trees be planted which show growths of this kind upon the roots, for not only will it result in an unthrifty and unprofitable tree, but it will also infect the soil with the crown gall organism and endanger other plants.

Growing Celery

Henry J. Fisher, (aged 12), Northumberland Co., Ont.

We had a fine crop of celery last year and I am going to tell how we grew it. We had upwards to 500 plants and all first-class celery. The first thing we did was to prepare a small plot for growing the seeds early in the spring. When the plants grew up about three or four inches high we transplanted them to another place. We took the plow and made a ditch about one foot deep, where we intended to have the celery. We put about two inches of manure in the ditch and covered it with a little earth. When they were transplanted, we put boards over the top of them to keep the sun off the plants until they caught root and could stand the heat of the sun. After we got the boards on we took two or three pairs and put a little water on, enough to moisten the soil. When it gets five or six inches high, we took a horse and stone-bow to draw two large milk cans of water; then we poured it on the plants. We put water on about every night in a dry time.

As soon as the stalks and leaves start to spread apart we hold the plant up snug while another person shovels dirt and puts it around each plant to keep it from rusting. When it gets a little taller we bank it up and keep doing so until it is time to bring it in.

It is about the first of November when we start to bring it in; it is as plain as grass. We take a horse and a stone-bow to bring it in. While one digs each plant out separately with the shovel the other puts in on the stonem or three or four inches the roots will hold. When we get a load on we take it to the house and put it in the cellar. We carry dirt in pails or in boxes to put on it in the cellar. When we get it in it is always put in in rows and put dirt on up to the leaves. Every row is put in, in the same manner until we get it all in. After it is in the cellar about three or four weeks it starts to bleach and gets crisp. We have celery yet (April 1st) and it is keeping well. The name of the celery that I am writing about is the Winter Triumph.

The Farmers' Garden

A. S. Werden, Prince Edward Co., Ont.

Having done a good deal of experimenting during the past six or seven years in my own garden with the different varieties of the leading vegetables, I have at last gotten a list that will be found to be suitable for most parts of the country. It is better to leave the novel and untried until you gain a little experience, when you will be more likely to have success with them. I will give my list in alphabetical order.

In wax dwarf beans, the Stringless Wax is the best. In green podded, pole beans, the Lazy Wife is as good as any. In beets, Edmand's Early Turnip and Crosby's Egyptian are the best. In cabbage, Jersey Early Wakefield for early and Surehead for late fill the bill. In carrots, Half Long or Intermediate is as good as any. In sweet corn, Premo for early and Evergreen for late are the best. In cucumbers, the White Spine still has the lead. The Nonpareil lettuce is the best. In muskmelons, try the Strawberry. In water melons, Cole's Honey, Ice Cream and Hungarian Honey are the best.

In onions, the Yellow Globe Danvers and Red Wethershead lead; these may be grown from seed, but for the busy farmer I think it pays best to buy what is catalogued as Yellow Dutch onion sets, which grow to be nice large onions and are easier and cheaper to raise.

For garden peas, the Alaska for early and Stratagon for late are my favorites. In radishes, the White Tipped is one of the best early sorts, while for winter use the long Black Spanish is about the best. In squashes, the Crookneck is the best for summer and the green Hubbard is as good as any for winter use. In tomatoes, nothing beats the Earlians for early, while the Stone is a good main crop variety.

I have now reached the end of my list and it is open to criticism from those who know of better varieties. I would urge every farmer to try the experiment of having a garden and see what a source of pleasure it will be to have vegetables of his own just when he wants them, and he will also find it profitable.

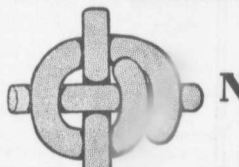


Whether you meet a wolverine in the Rockies or a wildcat in Nova Scotia, you will be glad if your gun is loaded with Dominion Ammunition. Every single cartridge or shotshell can be depended upon as absolutely as if loaded especially for an international match. Dominion Cartridge Co., Ltd., Montreal.

DOMINION
IMPROVED AND PROVED
AMMUNITION

Clarkson's Fruit Growers.—At the annual meeting of the Fruit Growers' Association of Clarkson's and Lorne Park, Ont., the following officers were elected: Pres., L. A. Hamilton; 1st vice-pres., J. P. Stephens; 2nd vice-pres., John Manley; sec., W. G. Horne; treas., W. Clements; directors, R. Lush, C. Sproule, J. Lightfoot, R. Speck, Geo. Manley, G. Adamson and J. Pengelly. The various reports submitted showed the Association to be in a highly prosperous condition and to be accomplishing an excellent work in furthering the interests of the fruit growers in that locality.

There is money in the orchard.



The Lock that makes "Page Fences Wear Best."

There Are No Two Ways About It.

Page High Carbon Fences are either the most economical to buy, or they are not.

Page High Carbon Wire is from 33 1/2% to 50% stronger. Which fence can be stretched the tightest? Which will hold its shape and consequently require least number of posts?

Posts for Page High Carbon Steel Fences can, with equal factor of safety, be set one-half greater distance than for hard steel or ordinary wire fence. Suppose posts cost say 16 cents digging and setting 10 cents. How much would you save, figuring the Page Empire all No. 9 fence costing you two or three cents more than the hard steel fences? The figures will prove Page the Economical Fence.

To all making request to our nearest office, we are mailing, free of charge, a Booklet entitled "How to Test and Prove Wire." It's a money-saver, as you can know for a certainty what quality of wire is used in any fence. No more guesswork. This Booklet is a practical text-book on the fence question. Every farmer or property owner ought to have it. The Booklet, formerly had a big sale at 10 cents per copy, but as the Page Wire Fence Co., Limited, have acquired the copyright they mail it free to enquirers. Send for it now while you think about it.

THE PAGE WIRE FENCE COMPANY, Limited
WALKERVILLE TORONTO MONTREAL ST. JOHN

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

POULTRY

Poultry Industry

R. W. Hodson

The Province is admirably well equipped for fruit growing, young orchards make not only out of their own eggs for the steady increase, 6, the average cents a dozen a dozen, accounted for marketed in condition, are better eggs have been last year \$1.50 and poultry pricing to the poultry raising are being especially the case and on the market, cover, where a market.

The Province what a poultry raising can the various districts co-operative egg connection with first of these states at Duncaus.

eggs are furnished number stamp, each egg before eggs are delivered the creamery, put on the market. This method of poultryman has a price in his method of remedy this last cottage and industry just built up the day.

Winter Fences

Asked as to during the winter Prof. W. R. Gr. while addressing Peterboro recent feeling is not in winter. When we saw what in of a quart for morning feed, turned over with "We do not in morning. The soon as they c. At noon fill a clover hay or a

Winter Fences

Winter Fences

Winter Fences

Winter Fences

Winter Fences

Winter Fences

Winter Fences

POULTRY YARD

Poultry Industry and Egg Handling Stations in B. C.

R. W. Hodson, B.S.A., Live Stock Commissioner.

The Province of British Columbia is admirably suited for poultry raising, owing to the mild climate. Many fruit growers, while waiting for their young orchards to come into bearing, make not only a living but a profit out of their poultry.

In reviewing the market price for eggs for the last few years, we note a steady increase in price. In 1905-6, the average market price was 30 cents a dozen; for 1907-8, 40 cents a dozen. This advance in price is accounted for in that eggs have been marketed in a cleaner, fresher condition, are being better packed, also fewer eggs have been imported into the province from the East, although last year \$1,500,000 worth of poultry and poultry produce was imported. Owing to the profit to be made from poultry raising, many poultry farms are being established, this is especially the case on Vancouver Island, and on the mainland around Vancouver, where there is a splendid local market.

The Provincial Government, realising what a profitable industry poultry raising can be made, are aiding the various districts in establishing co-operative egg handling stations in connection with the creameries. The first of these stations has been established at Duncan's. The farmers supplying eggs are furnished with a rubber number stamp, with which they stamp each egg before delivering it. The eggs are delivered on cream days at the creamery, are there candled and put on the market with a guarantee. This method of handling eggs will give a monthly cash price to the poultryman, a profit to the creamery, and a guaranteed article to the consumer. Heretofore, the average poultryman has had to sell his eggs for the village storekeeper, taking the price out in trade. This co-operative method of handling eggs should remedy this last evil, and should encourage and build up the poultry industry, just as the creameries have built up the dairy business.

Winter Feeding of Hens

Asked as to how he fed his hens during the winter, when they were housed in the cold buildings, Prof. W. R. Graham, of the O.A.C., while addressing the poultrymen in Peterboro recently, replied, "Hopper feeding is not to be recommended in winter." When dark in the evening we sow wheat in the litter at the rate of a quart for every 25 hens for the morning feed. The litter is then turned over with a manure fork. "We do not go near them in the morning. The hens go to work as soon as they come from the roost. At noon fill a rack on the wall with clover hay or alfalfa. A mangel is

furnished twice a week by being hung on a nail in a convenient place. On cold days, more grain is added to the litter. At night we fill the trough full of whole corn. Beef scraps and fat are fed before the hens at all times in hoppers. Water is supplied when the weather is not too cold, otherwise we simply shovel in snow for them."

Information on Poultry

Much useful information concerning poultry is contained in the evidence of Mr. G. Gilbert, manager of the poultry division of the Central Experimental Farm as given before the select standing committee on Agriculture and Colonisation in 1907-08. The evidence deals with the housing, breeding and feeding of poultry.

Information as to turkeys, geese and ducks, their proper relations, fattening, plucking and dressing, and all that deal with the raising of this evidence may be had free on application to A. G. Gilbert, Poultry Manager, Central Experimental Farm, Ottawa.

Make it Widely Known

It is just possible that many good dairy farmers throughout Ontario may have heard of the Dairy Farms Competition to be held this year. Farm and Dairy will greatly appreciate the favor if our readers will tell their neighbors about the competition and show them this copy of Farm and Dairy in which an announcement appears. To have a farm in your section win a prize in this dairy farms competition, will be a distinct credit to your locality, it will not only give you much advertising of a very desirable nature but it will tend to work improvement on other farms in the neighborhood. The spirit of progress and of farm improvement is catching once it is made manifest in any particular section.

Do not put off telling your friends about the competition. The time before the entries close is not far distant, consequently any prospective competitors should know about the competition immediately. We trust that our readers will lend us their co-operation in making this competition as widely known as possible. Farms that at a casual glance, owing to buildings that are somewhat out of date, might not seem likely prize winners, may, when under the trained eyes of the judges obtain a high score. Therefore do not think that your farm would not stand a winning chance. It might catch the attention of others in your neighborhood that are fitted up with an imposing house and barns.

Sir Marcus Goes to Utah

Just closed the sale of the celebrated champion Clydesdale stallion Sir Marcus, imp., to the Rocky Mountain Stud Farm Company, at Salt Lake City, Utah. Messrs. Graham have been very proud of this horse, as he has developed wonderfully in their hands, and they were looking forward to a big show season with him. However,

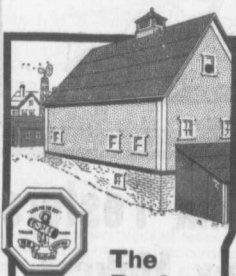
the Mormon State Association wanted him and put up the figures to a most tempting point.

This horse is undoubtedly the finest example of Clydesdale symmetry and form on the continent. His massive and well rounded body is supported upon as good a set of legs and feet as can be found. The smooth flinty bone, the just-right feathering and the action are faultless. Graham Bros., who have the horse for sale, are to be complimented on the manner in which this horse has developed. That he leaves the country is a decided loss.

National Record Board Meet

Considerable discussion on the rules governing the National Live Stock Records took place at the annual meeting of the National Live Stock Record Board held Friday, May 7th, at the Queen's Hotel, Toronto. As the rules now read, pure-bred animals can be registered in the Dominion records provided that the breed is affiliated with the National Record Board and provided that the owner can show the proper pedigree. Animals eligible for registration in the Canadian Record Books can enter the country duty free. The importer, however, must be a British subject or be domiciled in Canada.

A Nova Scotian who had purchased a Devon bull from a United States breeder, discovered on bringing it into Canada that he must pay duty on it since there was no Canadian



The Roof That is a Roof

A roof that gives only half the service that a roof should is only half a roof. REX Roofing makes the roof that is a roof. REX gives full service and full protection. It keeps out wet and dampness, it protects stock from extremes of temperature, winds cannot penetrate it or blow it off. Falling sparks or firebrands do not ignite it. It will not rot, melt, crack, peel, blister or curl, and with

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has the greatest durability—because it is made honest all through. Its quality is in its body as well as in the surface coating as well as in the dense long-fibred felt. Any farm-hand can lay REX Roofing—everything needed but the hammer comes in the roll.

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Make the free test, try its strength, note its pliability; and when you go to your dealer, be sure you give him the "Look for the Boy" trade-mark kind.

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225 EGG-RECORD STRAINS

DO YOU WANT EGGS From the kind that won for me and will win for you.

FIVE PENS— The best I ever mated. All headed by winning cocks. Two or three winning females in each pen. Matings that are teeming with breeding qualities that will produce some of the best birds this year.

- Single Comb Black Minorcas \$2.00 per 15
- Rose Comb Black Minorcas 3.00 "
- Single Comb White Minorcas 2.50 "
- Single Comb White Leghorns 1.50 "

Infertile (Clear) Eggs Replaced

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Dufferin Poultry Yards
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POULTRY EXCHANGE

TWO CENTS A WORD, CASH WITH ORDER

COLUMBIA WYANDOTTES—EGGS and setting for sale. Write Emerson Tuffin, Welland, Ont.

RHODE ISLAND REDS—Eggs for setting from rose and single comb birds. Two pens of each, headed by high scoring birds. One dollar and one fifty cents eggs. BOBT. J. LOGAN, North Glanford, Ont.

SETTINGS OF EGGS—GIVEN AWAY IN RETURN for two new yearly subscriptions to Farm and Dairy. Standard varieties. Write Circulation Dept., Farm and Dairy, Peterboro, Ont.

FOUNTAIN PENS, 14 K. GOLD—PREP IN RETURN for one new yearly subscription to Farm and Dairy. Standard varieties. Write Circulation Dept., Farm and Dairy, Peterboro, Ont.

GREAT REDUCTION—B. C. Rhode Island Reds. Eggs from great producers and winners, after May 15, only 75c per 15. Bert Smith, Collinville, Ont.

EGGS FOR SALE—Barred and White Rocks; White and Silver Wyandottes; Black and Buff Orpingtons; Single and Rose Comb B. C. Farm and Dairy; White Leghorns; Black and Silver Hamburgs; Houdans; Black Jewar Dorkas. These birds won over 20 first prizes at nine shows, eggs, \$1.00 per 15. Box B, Farm and Dairy.

EGGS FOR HATCHING—Orders for hatching eggs looked now at \$2. per 15, from Canada's greatest S. C. Buff Leghorns. Send for 1909 mating list.—Box B, Farm and Dairy.

EGGS from 36 varieties of exhibition fowl; 25 years a breeder. Send for circular: Box 2, Farm and Dairy.

DUCK EGGS—Pure bred Mammoth Pekin duck eggs for hatching; one dollar per nine; stock for sale. Box 49, Farm and Dairy.

EGGS from purebred Buff Orpingtons, one dollar per 15; Guinea and Imperial Pekin Ducks, one dollar per twelve; Indian Runner ducks, one dollar per nine. All farm raised.—Box 53, Farm and Dairy.

WHITE WYANDOTTE EGGS at \$1 per 15, from heavy laying stock.—J. R. Hope, Willard, Ont.

EGGS—Brown Leghorns, Blk. Hamburgs, W. Wyandottes, \$1.00 setting, Blk. Minnesota Buff Orpingtons, \$1.50 setting. Cockerels for sale.—H. Calk, Peterboro.

Poultry Books Given Away Free of Cost

Your choice of the following, for securing Only One New Subscription for this paper at \$1 a year:

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- Duck Culture
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- Poultry Appliances
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Send us only ONE New Subscription at \$1 and we will send any of the above free of cost. Write for sample copies.

CIRCULATION DEPARTMENT
RURAL PUBLISHING COMPANY, Limited
PETERBORO, ONT.

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BE READY FOR HARVEST

NATURE will soon have done her part. If you are to receive the full reward of your year's labor, you must be prepared—to harvest your grain promptly when it is ready—to harvest it without waste—to do it with the least amount of labor.

A modern harvesting machine is indispensable. You cannot cut your grain the way farmers did a generation ago—and you cannot afford, when the grain is fully ripe, to be at the mercy of machines that break down or waste the grain. Do some thinking about the matter now.

You will want a harvesting machine next year and the year after, as well as this year. Ask yourself whether the old reliable McCormick binder would not be a wise investment for you at this time.

You know that the McCormick binder has been the main dependence at harvest time for tens of thousands of farmers for as long a time as you can remember. It is a machine that makes you sure of being ready for harvest. It gives you all your grain. It does it with the least labor. It enables you to harvest your crop in the shortest possible time. It handles grain in the down and tangled condition to its good advantage, at least, as any other harvesting machine in the world.

You cannot doubt the great and long continued service that a McCormick binder will give you. You have need for such a machine.

Will you see to making the purchase in time?

The McCormick binder is but one of a long line of famous McCormick machines and implements. Among them are—

Corn Harvesters, Binder Twines, Mowers, Tedders, Hay Rakes, Side Delivery Rakes, Hay Loaders, Disk Drills, Hoe Drills, Cultivators, Seeders, Sowing Machines, Spring Toads and Disk Harrows, Land Rollers, Scufflers, Spreaders.

Catalogues and particulars relative to the McCormick line may be had from any local agent, or write direct to the nearest branch house.

EASTERN CANADIAN BRANCH—International Harvester Company of America at Hamilton, Ont.; London, Ont.; Montreal, Que.; Ottawa, Ont.; St. John, N. B.

INTERNATIONAL HARVESTER COMPANY OF AMERICA, CHICAGO, U. S. A.



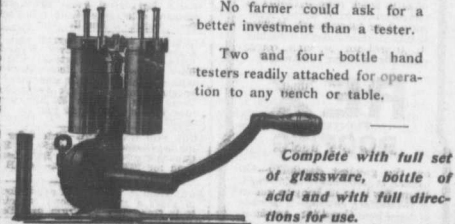
Babcock Milk Testers Are Money Makers

No dairy should be without one.

Tells accurately whether a cow is a Money Maker for the dairy or not.

No farmer could ask for a better investment than a tester.

Two and four bottle hand testers readily attached for operation to any bench or table.



Complete with full set of glassware, bottle of acid and with full directions for use.

R. M. BALLANTYNE LIMITED
Creamery Furnishings Dairy Supplies
STRATFORD - ONT.

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

Devon Breeders' Association. He had written the National Record Board asking if a Devon Breeders' Association could not be formed. The rules of the Record Board require that there shall be at least five members interested in a breed before an association can be formed. Dr. Rutherford, Dominion Live Stock Commissioner, to whom the communication had been addressed, thought that he knew of five men who were interested in this breed, so the matter was left in his hands.

After the discussion, the following resolution was made and passed: Moved by Peter White, and seconded by Jas. Bowman 'That in order to obtain free customs entry of animals a recognized breed recorded in books of record other than those of the country of the origin of the breed as laid down by resolution at the annual meeting of this board held April 30th, 1908, that the Live Stock Commission be requested to take the necessary steps to encourage the formation of the necessary records for breeds in question.

A discussion of the meaning of the word "domicile" then took place. It was defined as "the place to which a man returns after a temporary absence." Several cases were then cited of where breeders of the United States had bought farms in Canada and while they were not permanently domiciled in this country, they were permitted to bring animals into Canada duty free.

It used to be that any farmer could go to the United States, buy up stock and bring them into Canada duty free. The National Record Board then made the following regulations: "No animal imported for the improvement of stock shall be admitted free of duty unless the importer is domiciled in Canada or is a British subject, and furnishes a certificate of the record and pedigree in a list of registers designated from time to time by the Minister of Customs, showing that the animal is pure bred and has been admitted to a full registry in a book of record established for that breed." Since this regulation was made, many men have had poor grades left on their hands and also have had to pay duty. One case was cited where a British subject imported 24 bulls from the States. He sent their pedigrees to Ottawa for identification and was informed that only three of them could be registered. Thus he had 21 grade bulls left, besides paying the duty on this number. This regulation has tended greatly to improve the stock that has been imported.

The following representatives were elected to the Board: Chairman of the Board, Robt. Miller, Stouffville, Ont.; Heavy horses, Wm. Smith, Columbus, Ont.; Light horses, John Bright, Myrtle, Ont.; beef cattle, A. W. Smith, Maple Lodge, Ont.; dairy cattle, Robt. Ness, Howick, Que.; swine, J. E. Brethour, Burford, Ont.; sheep, J. M. Gardhouse, Weston, Ont.; secretary, J. W. Brant, Ottawa.

Items of Interest

Mr. W. G. Tretbewey, the millionaire farmer, of Weston, Ont., has just imported a valuable herd of pure bred Guernsey cattle, the result of which will be likely to create a greater interest in the breed in Canada.

It is reported that Dr. Chas. A. Publow, Associate Professor of Dairy Industry in New York State College of Agriculture at Cornell University, has offered a place on the Royal Commission of the Canadian Government to investigate the sources of Canada's milk supply. This commission is to travel through the United States and in many foreign countries to study this problem. Dr. Publow has not yet made up his mind to accept the position.

Send us the Names of your friends and neighbors who do not take Farm and Dairy, that we may send them sample copies. If the paper helps you, it will help them. You can thus spread the gospel of good farming, and confer upon us a favor that we will appreciate.

I have taken Farm and Dairy for many years and highly appreciate it.—Alexander Smith, Durham, Co.



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the Winter Wheat Belt of the North West. Twenty thousand acres at rock bottom prices. Average yield 45 bushels per acre. Can you afford to overlook this? Illustrated booklet, etc., on request.

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On payment of a small premium our Company will insure your Stallion, as well as your Horses, Mares, Colts, Fillies, Bulls, Cows, Calves, Hogs and Sheep against death by accident or disease.

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Agents wanted in unrepresented districts where resides a veterinary surgeon.

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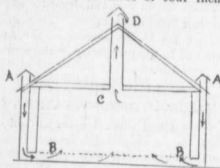
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Ventilated Root Cellar

Will you kindly explain the best method of building a root cellar and ventilating the same in order that we can keep manure, turnips, etc., in such a condition that they will not rot.—A. B. Dunham, Que.

The right kind of a wall is stone but cedar posts will answer very well and may be expected to last 12 or 15 years. Roof might be made the same way. A good way is to construct wall above the driveway in the barn, using old railroad rails for support and making the roof of cement.

Where cellar is located roots can be easily filled in from above and good ventilation may be obtained by leaving a few holes three or four inches



in diameter around the bottom as inlets and corresponding holes as outlets for warm air at the ceiling. Where a stone walled root house is built as a cellar or partly under ground, a good system of ventilation is as indicated in the diagram below where air goes down the shaft at "A" and into roots at "B", leaving cellar at "C" and striking cold air at "D."

If desired a lattice work box might extend across under roots, and so permit of fresh air going up through roots right across root house. Care will need to be taken to partly close inlets in very cold weather.

Queries re Cement Silo

1. What is the best sample of gravel to use, and in what proportion should it be mixed for a 12 foot silo, 30 feet high, and 10 feet under embankment?
2. How far apart should the doors be?
3. What is the best to use for stays, wire or rods? If so, how far apart and what size?
4. Would it need stays under the surface of the ground?
5. Does a cement silo need draining?

—J. E. H. Bruce Co., Ont.

1. The best kind of gravel to use is any from the size of peas up to the size of hen's eggs with sufficient sand to fill all the voids. If the gravel has not naturally got sufficient sand to fill all the voids, sand should be added. From three to five cords of stone can be used in this silo if the gravel used is not too coarse. The stone can be imbedded in the concrete while it is quite soft. Any stone used as a filler should be well dampened before being pressed into the soft concrete and should not be placed closer than within one inch from the surface of the wall. For each cord of stone that is used, one barrel of cement can be saved.

2. The doors should be made two by three feet and placed from three feet to four feet apart, the first door being on a level with the ground.

3. Re stays, wire rods; a silo 30 feet high and ten feet in diameter would require about 300 pounds of re-inforcing which can be made from old bar wire, wagon tire, or ordinary quarter inch round iron. It is not necessary to have them any certain distance apart in the silo, but each band of re-inforcing should extend clear around the silo and no matter what material is used the distance apart of the bands can be equally divided; the first band commencing about three feet above the ground and the last band within one foot of the top of the silo.

4. Re re-inforcing underground. No, as concrete is not affected by

**\$500.00
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Enclosed find \$1.00 for my subscription to your new weekly farm paper for one year.

Name.....

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My suggestion for a name for the new paper is.....

This coupon must be mailed on or before May 22nd, 1909

As we announced last week, we offer \$500.00 cash in prizes. First, a prize of \$300.00 to the Farmer or Stock Breeder who will send in the best suggestion for a name for our new Farm Weekly; then, as a consolation, 20 cash prizes of \$5.00 each, and 50 cash prizes of \$2.00 each to the 20 and 50 persons sending in the next best suggestions, making seventy-one prizes in all.

The Judges will be:

Mr. Wm. Rennie, the well-known Seedsman, and author of "Successful Farming," Mr. Thomas Graham, of Graham Bros., Claremont, well-known Horse Breeders. Mr. J. H. S. Johnstone, editor of the paper.

DESCRIPTION OF PUBLICATION

The new publication will be a large illustrated weekly. The subscription price will be only \$1.00 per year, though it will be made the best farm journal in Canada.

It will be edited by Mr. J. H. S. Johnstone, for ten years Associate Editor of "The Breeder's Gazette," Chicago, which is well known as the best Stock Journal in the world. He is also the author of "The Horse Book," which is the recognized authority on horsecraft.

It will publish reliable and original information on all subjects of interest to Farmers and Stockbreeders all over Canada.

It will cover thoroughly all departments of Stock Breeding and Raising, Grain Cultivation, Poultry, Orcharding, Horticulture and Gardening, Soil Development, etc.

It will publish accurate weekly reports and statistics of all the leading grain and live stock markets. It will have its own special crop and stock reporting service. It will publish special reports of all important Fairs, Exhibitions, Live Stock Shows and Conventions.

It will publish free to its subscribers plans of economical and sanitary homes, barns, outbuildings, etc., specializing on concrete construction.

It will have a correspondence department, giving the most reliable information on all subjects of interest to its readers, replies being written by the best recognized experts in the different departments.

CONDITIONS

This generous prize offer is entirely free to subscribers. Every prize winner must be a Farmer, Stock Breeder, Horticulturist, Fruit Grower, or in some way actually interested in Agriculture.

Send \$1.00, for which the paper will be sent you for ONE YEAR, and with your \$1.00 send your suggestion for the name of the new publication. Use the Coupon.

Every Coupon with a suggested name must be mailed on or before May 22nd, 1909, to be eligible to win a prize. The person who FIRST SUGGESTS the name adopted will win the prize, and priority of sug-

gestion will be decided by the POST MARK ON THE ENVELOPE in which the winning coupon is mailed. In this way all who submit suggestions will enjoy equal chances to win the money. Subscribers in Nova Scotia and British Columbia will have exactly the same advantage as those in Ontario—no more, no less.

This is absolutely the only advertisement that will appear. So cut out the coupon and send in with your suggestion for a name.

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152

expansion and contraction from exposure to heat or cold no re-inforcing is necessary under ground.

5. Re draining: It is not customary to drain cement silos. The bottom of the silo should be placed above water level as it is not necessary to have a silo any certain distance under or above ground, however, if a good drainage can be secured there is no objection to having the silo several feet under ground. The most popular distance is five feet.—London Concrete Machinery Co., Limited, H. Pooock, Manager.

Oats and Peas for Winter Feed

Does it pay to grow peas and oats mixed, for winter feeding? Would this mixture be difficult to cure? Can it be fed to horses?—A Subscriber.

Where the supply of hay is likely to be short it will be found profitable to sow peas and oats mixture for hay. Sow three and a half bushels an acre of a mixture of one bushel peas and two bushels oats. This mixture should be cut when the grain is well formed, that is in the late milk and is not difficult to cure under average climatic conditions. It may be advantageously fed to horses, but if allowed to get too far advanced before har-

vesting, it may be found necessary to run through a cut box, in order to get the best results.—J. H. Grisdale.

Send us the Names of your friends and neighbors who do not take Farm and Dairy, that we may send them sample copies. If the paper helps you, it will help them. You can thus spread the gospel of good farming, and confer upon us a favor that we will appreciate.

"I have been taking Farm and Dairy for about 12 years, and like it very much.—Richard Dinner, Simcoe Co., Ont.

Renew Your Subscription P. 4.

FARM AND DAIRY

AND RURAL HOME

Published by The Rural Publishing Company, Limited.



FARM AND DAIRY is published every Thursday. It is the official organ of the British Columbia Dairy, Eastern and Western Ontario, and Bedford District, Quebec, Dairymen's Associations, and of the Canadian Holstein, Ayrshire, and Jersey Cattle Breeders' Associations.

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

CIRCULATION STATEMENT

The paid subscribers to Farm and Dairy exceed 7,100. The actual circulation of each issue, including copies of the paper sent to subscribers but not strictly in arrears, and sample copies, varies from 5,800 to 12,800 copies. No subscriptions are accepted at less than the full subscription rates. Thus our mailing lists do not contain any dead copies and are up to date.

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

OUR PROTECTIVE POLICY

We want the readers of Farm and Dairy to feel that they can depend on our advertisers with our assurance of our advertisers' reliability. We try to admit to our columns only the most reliable advertisers. Should any subscriber have cause to be dissatisfied with the treatment he receives from any of our advertisers, we will investigate the circumstances fully. Should we find reason to believe that any of our advertisers are unreliable, even in the most slight degree, we will discontinue immediately the publication of their advertisements. Should the circumstances warrant we will expose them through the columns of the paper. Thus we will not protect our readers, but our reputable advertisers as well. All that is necessary to entitle you to the benefit of this Protective Policy is that you include in all your letters to advertisers the words, "see your ad. in Farm and Dairy." Complaints should be sent to us as soon as possible after reason for dissatisfaction has been found.

FARM AND DAIRY

PETERBORO, ONT.

TORONTO OFFICE:

Room 386 Manning Chambers, 72 Queen St., West, Toronto.

AN OPPORTUNITY FOR AGRICULTURAL SOCIETIES

The Provincial dairy farms competition to be held this year throughout Ontario should be productive of much good. In view of the splendid results of former competitions of this nature together with the interest already shown in the competition as announced for this year, the work may well be taken up and extended by agricultural societies throughout Ontario.

To win a prize in a farms competition of this nature is an honor of no mean consideration. An exhibitor at an agricultural exhibition may carry off many prizes on individual entries such as stock, seed grain or farm products. Such winnings tell but little of that winner as a farmer. In fact, taken on the whole, he may be one of the poorest farmers in the section. On the other hand, a winner in a dairy farms competition must

be an all round good farmer in order to stand a chance of success.

It will be worth something to have an idea of who is the best dairy farmer in Ontario. In many ways it will be worth as much to a particular section, and possibly more, to know who is the best dairy farmer in that section. Such a farmer being located near by, will afford object lessons for others in that section. His farm and his methods can be studied at first hand, whereas with prize farms in districts more remote, such privileges, owing to expense, are denied.

Those agricultural societies that have been interested during the past two years in the standing field crops competition, know the value of that work. The possibilities of the dairy farms competition are infinitely greater. Agricultural societies might well offer prizes to their members to compete in our dairy farms competition. By doing so they will be acting in the best interests of their members, they will enlarge the field of the competition and illustration farms will be found out and located at their very doors.

TRAINING TEACHERS IN AGRICULTURE

The establishing of the course now under way at the Ontario Agricultural College, whereby it is sought to train teachers in the scientific principles and practices of modern farming, is a most important scheme. Instruction is being given in the lecture room, laboratory, work shop, garden and field. The theory and demonstration of the lectures and laboratory illustrate the out-of-door practices; the course is elementary in character, the needs of pupils in the rural school being kept in view. Most of the instruction being given is of a practical nature and for the most part is given out of doors.

While it cannot be hoped that these teachers can be made experts in agriculture in so short a time, the course will tend to help the school teacher, that will make a country or a village school to sympathize with and direct, to a certain extent at least, the life interests of the country boys and girls. These teachers in training will be available for service in the schools next September. It is to be hoped that their work as a result of this course may be such as to justify the Department of Education in continuing and extending it.

OUR BACON INDUSTRY

Notwithstanding the present high price of bacon our farmers generally do not seem inclined to re-enter the bacon industry, which they have dropped to so great an extent during the last year. The reduced killings, the decline in shipments of Canadian bacon to the English market, and the scarcity of hogs in Ireland and England, have had a decided effect on raising the price of bacon. The strong wheat market and the advance in grain generally, has had much to do with this advance. There seems to be no prospects of lower prices.

Commenting on the shrinkage in

Canadian bacon shipments, Mr. P. B. MacNamara, Trade Commissioner in Manchester, has the following to say: "It seems as though Canadian bacon was losing its hold, and it is a pity that farmers should not be alive to the great disadvantage this will be to Canada at some future time. If Canadian bacon drops out of the English market, it will take some time before it can be reinstated. Knowing ones forecast very high prices for hog products throughout 1909."

Early reports that have come to hand from a census being taken by Farm and Dairy, point to the fact that the bacon situation in Canada is even in a much worse condition than we had feared. Reports have come in from correspondents stating in some cases that there are not one-third as many hogs in their district this year as there was last. Many estimate the number at 50 per cent. Our bacon industry has been built up at a considerable cost. It would seem a pity to drop it, since we have the market established.

The interest at stake warrants some action being taken. Possibly no one thing that could be done would help more to revive interest and ultimately lead to introducing better methods in the handling of our hogs than the sending of the proposed commission of farmers to Denmark and England as has been asked for by the Dominion Swine Breeders' Association.

POULTRY INDUSTRY IN BRITISH COLUMBIA

The Provincial Government of British Columbia has taken an advanced step in the poultry industry. It is offering aid to various districts in establishing co-operative egg handling stations in connection with the creameries. Eggs bearing the stamp of the farmers who furnish them, will be delivered at the creameries on cream days. These will be candled and put on the market with a guarantee as to quality. Similar methods of handling eggs have long been in vogue in Denmark. They have been a mighty factor in building up the poultry industry of that country. It is only fit and proper that we in Canada should adopt their methods. The work may well be extended not only in British Columbia but throughout the other provinces as well.

In order to maintain good prices for eggs, it is necessary that the examination, sorting, packing and shipping of eggs be carefully carried out. Danish egg handling associations have been able to gain a reputation for handling good stock through their perfect organizations and their system of stamping the eggs, whereby they can trace all bad eggs back to the producers. When it is known that members in the collecting districts in Denmark receive an average price of 12 cents a pound for eggs, whereas when the association was started 14 years ago, only eight cents a pound was paid, the possibilities of what a similar system can do for the farmers of Canada are evident. One of the most important of these associations in Denmark is The Co-op-

erative Export Association at Vejle. It 1897 it did an export business amounting to about \$3,216,000. This was increased to \$6,832,928 in 1906. This association has more than 500 district organizations with a membership of about 40,000 contributors from whom eggs are collected.

British Columbia is to be commended for her enterprise in organizing this work in connection with her creameries. Saskatchewan has already made a success of work of this nature. The agricultural departments of other governments cannot too soon fall in line and organize similar egg handling stations. They will mean much to the farmer of the future and to the prosperity of the country at large.

VALUABLE DEMONSTRATIONS

When asked what it costs to feed a cow, the average dairyman, if he could tell, would say about \$3 a month. This is a reasonable estimate. If it costs \$3 a month to keep a cow, then a cow that does not give at least 5,000 pounds of milk can make very little profit for her owner. The cow census for Eastern Ontario, taken by Mr. G. G. Publow, Chief Dairy Inspector, last season, brought out the fact that of the 340,829 cows covered by the census, an average of only 2,700 pounds of milk was obtained from each during the season of six months of cheese making. Many herds must have fallen far below that mark. The great possibilities of cow testing, when carefully studied and systematically carried on, are conclusively shown when we compare the record of the cows covered by Mr. Publow's census with those in the cow testing association at Rockford, Ont. In the cheese making period of six months last year, the Rockford cows averaged 6,098 pounds, or over twice the average production of the cows covered by Mr. Publow's census.

Systematic cow testing and a study of individual records as carried on by progressive members of the cow testing associations have brought out some unique examples of the great value of this work. Individual herds have been increased in production no less than 58 per cent. Mr. A. J. Davis, an Oxford County, Ont., dairyman, had, by means of keeping records and studying his individual cows, raised his herd average of 6500 pounds per cow for 1905 to 9,000 pounds a cow in 1908. Such figures surely talk and if we are going to keep cows at all, let us see to it that we know what it costs to feed that cow, what she produces, and what profit there is over and above this for her owner. Cow testing will do for us just what it has done for others. For years the Danes have demonstrated to us the value of this work. During the last three years, and at present we are having it demonstrated right here at home. Let us profit by such demonstrations.

When you write to advertisers, mention Farm and Dairy, and be protected by our guarantee printed on this page. Only reliable advertisers are permitted to use these columns.

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On a 50 Acre Farm

1—Can you tell me what would be the necessary capital required to stock a 50 acre farm in Ontario for dairying and hog raising (Holstein cattle and Yorkshire pigs)?

2—What amount of stock would 50 acres of good land support?

3—Would you give average returns from such a place, run under the average conditions of eastern farming?

4—Or what is your idea of stocking and working 50 acres for the greatest returns?—L. W. F. Halverson, Siskiwit, Mich.

1 and 2.—On a good 50-acre farm where all the land was arable one might reasonably expect to produce enough roughage to begin with to handle 15 cows and two or three horses. With good farming this number might be increased to 25 or 30 head of horned cattle and possibly three or four horses would be necessary if it was intended to farm as intensively as conditions would allow. Two sows would be sufficient to begin with.

Good Holstein grades are worth from \$50 to \$80, depending on quality and season when bought. Putting them at \$60, the 15 cows would cost \$900. Horses would cost from \$125 to \$200, say two at \$150 would make \$300, and two good sows would cost \$60, a total of \$1,260 for live stock. A good bull should really form part of the herd and an animal such as might be expected to prove satisfactory would cost about \$100. If pure bred cows were bought, which I would not advise, the cost of the cattle would be about doubled, making the cost of stock about \$2,400 instead of \$1,300 or \$1,400.

RETURNS.

3—Such a place well stocked as described above and well managed might be expected to give returns about as follows, provided milk was sent to cheese or butter factory.

15 cows—\$60 from factory..\$900.00	
Later milk sold as butter .. 150.00	
20 pigs—200 lbs. each, \$6 a .. 120.00	
..... 240.00	
Poultry	100.00
	\$1,390.00

If milk was sold to city, returns from cows might be expected to be \$600 or \$700 greater.

Outlay might be expected to be:	
Brn, shorts, meal, etc., in addition to feed raised on farm	\$100.00
Labor in addition to proprietor	200.00
Repairs, etc.	100.00
	\$400.00

This leaves a balance of about \$1,000.00 to pay all other expenses of living, taxes, etc.

4.—The greatest return from a 50 acre farm in Eastern Ontario can undoubtedly be obtained by following the line of farming proposed, dairying, pork and poultry. To start with I would advise grade females of all classes of live stock kept and pure bred sires, then a gradual working into pure bred cattle, swine and poultry. The idea would be pure breeds of all kinds even including working horses. If properly handled pure breeds are very much more profitable than grades.

To get best results a good rotation would need to be followed on the farm and a good sized silo built for ensiling corn. A good method would be to divide off four nine acre fields on which to follow a four year rotation: Corn, grain, hay, pasture; and three 3-acre fields for soiling crops following a three year rotation: Corn, mixed grain, peas and oats to cut the green; clover hay. The balance of the farm would be taken up with orchards, gardens, paddocks for pigs or cattle, roads, etc.—J. H. Grisdale, Agriculturist, C.E.F., Ottawa.

Every farmer should have Farm and Dairy coming to his home regularly.—T. A. Craig, Grenville Co.

Hullless Barley, Sorghum

1. Is white hullless barley a good kind to sow on clay ground, that has spots of loam?

2. Is straw long or short, and does it yield better than other varieties?

3. Is sorghum or sugar cane better for feeding cows, pigs, etc., than corn?—B. H., Welland, Ont.

1 and 2. Would not recommend white hullless barley as a farm crop, the yield is small, the straw weak and the crop generally speaking unsatisfactory. Try Mensury.

3. Sorghum or sugar cane, if sown in rows for soiling crop is a valuable feed, but is not in the writer's opinion and experience nearly equal to corn as a crop for feeding dairy cows. Do not think it is of much value for feeding to swine.—J. H. Grisdale.

CITY MILK SUPPLY DEPARTMENT

Difference in Weight and Test

Farm and Dairy is in receipt of the following letter from a Toronto cream shipper living at Brampton, Ont.

Editor Farm and Dairy: Many of the farmers in this district ship sweet cream to Toronto which is sold by test. The prevailing price now being about 34 cents a pound for the butter fat. The cream sent each month is settled for between the 10th and 15th of the following month and the dealers statement and basis of settlement is frequently many gallons below the cream sent by the farmers, while the test allowed runs from two to seven per cent. below the farmers' test, which is frequently made by churn and the Babcock tester. By taking up this question vigorously, I think Farm and Dairy and the farmers might be mutually benefited. The shipping ticket on each can gives the amount contained in that can and if accepted should be the basis of settlement, or the Express Co should be liable.

Possibly one solution of the testing would be for the cream producers to appoint a tester who would take samples as the cream arrives at the station or have a city testing house the same or a city weigh scale. Samples of milk as it arrives in the city could be tested, also samples from the dealers' delivery wagons. These might frequently show that the farmer is not always to blame for the poor quality of the milk.

In talking with other cream shippers, who send to large dairies, other than the one I send to, the experience seems to be much the same. For instance by sending 100 gallons of 25 per cent cream the dealer will only pay us for about 94 gallons testing about 21 per cent.—Subscriber, Peel Co., Ont.

We referred the letter to Mr. A. J. Reynolds, secretary of the Toronto Milk and Cream Producers' Association and have received the following reply:

Editor Farm and Dairy.—Concerning the matter complained of I have had no official information that any such treatment is general. Only recently I met a cream shipper who was sending cream to two dealers and he said he had been well used by both of them, as they accepted his own test and paid for the full quantity sent. Again I have been told of another dealer who paid the price agreed upon but the test was two or three per cent. below that made by the shipper.—A. J. Reynolds, Sec. Toronto Milk and Cream Producers' Association.

Farm and Dairy would welcome discussion on this matter. What have other cream shippers to say on this point? What has been your experience? Have you been used squarely?

Send articles and items of interest for this department.



No Politics in This De Laval Cream

Separators

BEST FOR ALL PARTIES
FREE BOOK

THE DE LAVAL SEPARATOR CO.
173-177 William St.
WINNIPEG MONTREAL VANCOUVER

SILOS

WE SUPPLY THESE MADE OF STEEL

Our Customers have found these Easier to Erect, Just as Durable, and FAR CHEAPER than the styles ordinarily used.

WRITE US FOR PRICES

We manufacture a Complete Line of Dairy Power Plants

The Waterous Engine Works Co.
BRANTFORD ONT. Limited

Creamery Department

Butter Makers are invited to send contributions to this department, to ask questions on matters relating to bookkeeping and to suggest subjects for discussion. Address your letters to the Creamery Department.

Wash the Separator

James Stonehouse, Creamery Instructor, Kingston, Ont.

In visiting patrons of creameries, I have found that there is a great tendency to not wash the separator. Some wash it once a day, some not that often. They claim that they cannot see any difference in the butter made from the cream when the separator is cared for in this manner. Let them keep that butter for three months and then they would see a great difference. This practice of neglecting the separator is on the increase. Fifty per cent of farmers wives are neglecting to wash the separator. Those practices must be stopped as far as possible. Many clean women in other respects leave their separator in a filthy state because the separator agent that had a difficult machine to clean said that it was not necessary to wash his machine. When one woman starts washing her separator only once a day, her neighbors soon do the same thing. As a result of these practices, we are not getting as good cream from separators to-day as we did 10 years ago. All the fifth and the slime in the milk is left in the separator bowl. You may flush it out as much as you like, but all the slime and dirt is left there. The next time the milk is separated, many of the germs that are sure to be growing there, will be taken out with the cream. When the separator is not washed, the cream cannot help but be contaminated, unless of course the separator has been

frozen in the interval. You cannot see these germs, but they are there just the same. Many of these germs grow most rapidly at a temperature of about 70 degrees, hence they find a favorable temperature in which to work when the unwashed separator is located in the stable.

All the tinware and the bowl of the separator should be taken to the house regularly each time it is used and thoroughly washed and scalded. The very best care should be taken to clean it well. One might just as well and better leave their milking utensils unwashed as to neglect the separator. Any woman would be shocked at the idea of leaving her pails and other utensils unwashed, yet more damage is done to the cream in leaving the separator unwashed than in neglecting other utensils.

Why Danish Butter is Uniform and Good

A Scottish farmer, who has made a study of dairy conditions in Denmark, gives the following as the chief reasons why Danish butter is uniform and good:

1. The cows receive roots all winter and thus the butter is soft and not hard and dry, as when fed on hay and silage.
2. The milk when it comes into the factory must be pasteurized to 185 degrees F. and by this means turnips and other flavors are got rid of.
3. The cream is cooled to about 64 degrees F. and a starter of lactic acid used. The cream is only kept for 24 hours. Thus it will be seen that when the starter is there and the cream only kept for a short period, no bad flavors can rise.
4. The barrels the day before being used are steamed, and the inside receives a coating of moist lime, which is washed off next day before

the butter is put in and after washing the barrels are rubbed with salt. Thus the odor from the wood is to a large extent prevented and does not flavor the outside of the butter.

The paper which lines the barrels is steeped in salt water for two days before use; also the churns, butter workers and cream tubs are coated with moist lime after the cream has been washed off. This is allowed to remain on for about ten minutes, when it is washed off with boiling water.

All the barrels have printed on the outside, "Danish Butter" along with the registered number of the dairy it came from, so that if there were any complaints they could be traced right back to the dairy the butter came from.

Brooklin Creamery Organized

Messrs. Patterson & Campbell, of Brooklin, Ont., are to be congratulated upon the success of their efforts during the past winter in organizing a creamery at Brooklin. When Mr. Patterson announced some weeks ago to the farmers who would be the patrons of the prospective creamery, that he would have the creamery in operation by the first of May, they honored his word with a curious look as much as to say "We'll see." True to his word, Mr. Patterson had the creamery erected, machinery installed and everything ready to receive the cream by the date promised.

At their organization meeting held at Brooklin on Wednesday, April 28th, Mr. Patterson saw to it that his patrons would at least receive some instructions in the matter of producing and caring for their cream. With this end in view, arrangements had been made to have Messrs. Jas. Stonehouse, Port Perry, formerly an instructor at the Kingston Dairy School and creamery instructor and sanitary

inspector for Eastern Ontario, Jos. Burgess of Woodstock who has in charge the work of the cow testing associations over Ontario, Mr. Newman of Lorneville, G. A. Gillespie of Peterboro and Chas. C. Nicolson of Farm and Dairy to address the meeting.

The prospects for the new creamery are bright indeed. The two young men at its head, Messrs. Patterson and Campbell are deserving of much credit and it is up to the patrons of this new creamery and to the farmers in the vicinity to see that they are well supported.

Cream Defined

Cream is simply an emulsion of fat in milk serum. We may have much, or less cream, from milk, but we can only have so much fat from the same quantity of milk whether we get much cream or less. By creaming milk in the old fashioned way, we get a part of the fat out, sometimes more or sometimes less. By nature's method of creaming, the light part of the milk or fat comes to the top by the natural gravitation of the earth. In coming up, it brings a part of the milk serum with it. In methods where this principle is used for creaming, only about three-quarters of the fat is recovered from the milk. Sometimes there is not one-half of it gotten out, especially in hot weather when the milk sours rapidly.

On the other hand, with the separator, we get practically all of the fat out. We can have a rich cream or poor cream just as we like.

—James Stonehouse, in an address at a creamery meeting in Brooklin, Ont.

This is the season of the year when the cream haulers and creamery managers require to exercise their backbones quality by refusing to accept cream of bad quality.



ONE USE FOR A PICKET FENCE

THIS picture shows how one woman used her picket fence to dry the disks from her "bucket bowl" cream separator. She realized the need for using a separator and the work of thoroughly washing a half bushel of disks twice a day, but she did not know that the simple Sharples Dairy Tubular would have saved her that work and given better service, or she never would have let her husband buy a disk machine.

Two Wrongs Don't Make a Right

"Bucket bowl" manufacturers are wrong, in the first place, in using wide mouth, squatty, "bucket bowls" fed through the top. That kind of bowl is not modern. They are wrong, again, in filling their bowls with disks or other contraptions, for such parts do not make a steady, simple, light, easy to clean, durable bowl. These two

The only modern bowl is the light, slender, simple Dairy Tubular bowl, hung below its bearing and fed through the lower end. Our patents prevent imitation, so others still make "bucket bowls" out of date years ago.

Any one can build disk separators cheap, and just as good as the "old original" disk machine. Any dairyman who is willing to endure the inconveniences of a disk or other "bucket bowl" machine, and insists on trying one, should buy one cheap—then he will not lose so much when he throws it away and replaces it with a Sharples Dairy Tubular.

Disgusted farmers now are throwing away "bucket bowl" machines, both new and old, by car loads and replacing them with Tubulars. Not a pleasant experience for them. Avoid it by getting a Tubular. The manufacture of Tubulars is one of Canada's leading industries. 1908 sales way ahead of 1907—out of sight of most, if not all, competitors combined. 1909 better yet. Get catalog No. 253



The simple, light Sharples Dairy Tubular bowl is easily washed clean in 3 minutes. A few thrusts of the brush does it. Better than spending 15 to 30 minutes washing a "bucket bowl."



29 Yrs
Sharples

The Sharples Separator Co.
Toronto, Ont. Winnipeg, Man.

Cheese

Makers are invited to send contributions to this department, to ask questions on matters relating to bookkeeping and to suggest subjects for discussion. Address your letters to the Creamery Department.

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Cheese Department

Makers are invited to send contributions to this department to ask questions on matters relating to cheesemaking and to suggest subjects for discussion. Send your letters to The Cheese Maker's Department.

After Shippers of Green Cheese

"Only a portion of the cheese factories in Eastern Ontario are addicted to the practice of shipping green cheese," said Chief Dairy Instructor G. G. Pablow, at a meeting held in Peterboro recently, "but there are enough of them to have quite an influence on the average quality of the cheese shipped from Eastern Ontario. Early last July, I visited 23 factories in one section of Eastern Ontario in two days. Nineteen of these factories had shipped all their June cheese and seven had shipped what July cheese they had made. When cheese is shipped so soon after it is made there is bound to be a great shrinkage in it.

"We have tried to educate our factory owners not to ship green cheese. We are now considering the advisability of instituting factories that make a practice of shipping such cheese to the Old Country firms that buy our cheese. We have had so much trouble over the shipping of green cheese that the time has come when we must adopt stringent measures, if we are to secure an improvement."

Uniformity in Cheese

In order that there may be a greater uniformity in the cheese manufactured in the Cheese factories in Eastern Ontario, Chief Instructor, G. G. Pablow, this year has furnished each of the 39 dairy factories in Eastern Ontario, with a starter, in order that they may furnish the cheese makers in the various factories in their respective districts with good starters. In this way, the cheese makers throughout Eastern Ontario will be enabled to use a uniform starter.

Cheese makers who have not received a starter, will be able to do so by applying to the dairy instructor for their district.

The Cheese Industry in Eastern Ontario

In view of the re-opening of the dairy season, the following remarks on the cheese industry in Eastern Ontario for 1908, made by Mr. G. G. Pablow, chief instructor at the Dairy-men's convention last winter are due to the point. By taking heed of any weak points in last season's business we should be able to avoid them this year.

While the majority of the factory-men responded readily to the recommendations made by the instructors, yet some 25 persisted in keeping their factories in a very unsanitary condition. They were informed that unless they made the necessary improvements at once, action would be taken against them. I am pleased to re-

port that we obtained the conditions asked for without having to resort to this measure. To be fair to the factory-men, I might say that it was not because they did not desire the improvements but owing to their small patronage and the low price of manufacture, there was little or no profit in their business, in fact, many of them did not have enough to pay the running expenses. It is to be regretted that in this eastern section, there were so many small factories, wherever possible, two or three should be combined and a good up-to-date factory built in their stead.

LACK COOL-CURING FACILITIES

With the exception of one or two districts, the majority of the factories are now in good condition as far as the buildings and drainage are concerned. However, the great majority of them are lacking in good facilities for curing the cheese. Only 49 are so equipped as to be able to maintain a uniform temperature in the curing room throughout the season, although this is essential for the proper curing of cheese. During the hot weather where there are no facilities for controlling the temperature, heavy losses are often sustained through the deterioration and shrinkage of the cheese in the curing rooms, and besides there is not the independence of market conditions that is possessed by factories equipped with cool-curing rooms. The lack of these conditions is often responsible for the shipping of cheese so close to the hoops.

WHEY BUTTER

Some 63 factories manufactured butter from whey, as compared with 14 last season. The yield showed a variation of from 3 to 5 lbs. a ton, the increased yield being obtained when the milk was in an over-ripe condition and was being delivered every other day. While it is evident that with proper facilities and care in the manufacture, good butter for immediate use can be made, yet I am still of the opinion, that where the milk is delivered to the factories in a cool sweet condition and skillfully handled in the manufacture, it will not pay for factories to adopt the practice unless the output is large.

PREVALENT DEFECTS

The defects that were most common in the defective cheese were, openness in make, coarseness of texture, and sour, or flat, flavor. A few complaints were made regarding the finish and boxing of the cheese. The improvement in this respect has been very marked. About the majority of the makers are capable and doing a good work, yet there are a number who are indifferent and lacking in ability and experience. Of the 941 who were in charge of the factories this year, only 301 had received any dairy school training, and of this number only 75 hold certificates or diplomas from any of our dairy schools. I would strongly recommend the cheese and butter makers to take at least a short term in one of the dairy schools each year, and thus take advantage of the opportunities afforded by the Department of Agriculture of getting a knowledge of the scientific principles of dairying. It is so essential that they should be possessed of this information to enable them to deal successfully with the dairy problems with which they are being continually confronted.

I would like to express my appreciation of the manner in which the instructors performed the duties allotted to them. They put forth their best efforts to bring about improvements in their respective districts, and as a result, more substantial improvements that will tend to the uplifting of the dairy industry were made in 1908 than in any previous year. The directors of the Dairy-men's Association have well shown their assistance to the instructors and myself in our efforts to improve the quality

of our dairy products and the conditions surrounding their manufacture.

BETTER MILK DELIVERED

The quality of the milk delivered to the cheese factories showed a marked improvement over that of the previous year. As a result of dairy education, the patrons are taking a more intelligent view of the principals involved in the production and care of milk, and we have every confidence that the improvement will be more marked during the coming season.

FEWER PATRONS

The number of patrons delivering milk to the cheese factories last year was 36,801, which is some 1,700 less than in 1907. This decrease is largely due to the fact that many of the patrons found it necessary to dispose of their herds in 1907 on account of the scarcity of fodder.

(Concluded next week.)

I AM FOR CHEESE-MAKERS

That desire to be up to date. A trial of our "ACME" Ink made specially for stenciling or lettering of any kind will convince you of its merits. There is nothing in the market to equal it. We guarantee it to be ready for immediate use in any temperature, though liquid, it will not freeze, neither will it clog the brush, or allow it to become gummy.

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When buying a Curd Agitator by one that has no weak spots. The Baird Agitator has no weak spots but it has many strong points that are not found in any other Agitator.

The Drive Gears are so constructed that they may be fitted to vats of different lengths, which change might be necessary when replacing your old vats with new ones.

The Frame is neat and strong, being made of 1 1/2 in. pipe. There are no unnecessary bolts to become loose to cause extra attention.

The Driving Jack is made in a manner that will permit the paddles in any vat being thrown out of gear.

The Paddles work in every part of the vat which assists in giving a smooth even texture to the cheese.

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PURE religion, as taught by Jesus Christ, is a life, a growth, a divine spirit within, coming out in love and sympathy and helpfulness to our fellow-men.

Dr. W. H. Thomas.

Sowing Seeds in Danny

By Nellie L. McClure
(Continued from last week)

THERE! I guess there can be no kick about that, Pearl thought to herself when Bugey finished, and the applause rang out loud and louder.

Pearlie had forgotten to tell Bugey to come down when he was done, and so she stood irresolute, as the applause grew more and more deafening. Pearl beckoned and waved and at last got him safely landed, and when Mrs. White announced that to-day was Taffy Day, owing to Miss Barner's kindness, Bugey's cup of happiness was full. Miss Barner said she had an extra big piece for the youngest member, Master Danny Watson. Pearlie had not allowed any person to mention taffy to him because Danny could not bear to be disappointed.

But there were no disappointments that day. Taffy enough for every one, amber-colored taffy slabs with nuts in it, cream taffy indusious nuggets, curly twists of brown and yellow taffy. Oh, look, there's another plateful and it's coming this way. "Have some more, Danny. Oh, take a bigger piece, there's lots of." Was it a dream?

When the last little band of Hoper had left the vestry, Mary Barner sat alone with her thoughts, looking with unseeing eyes at the red and silver motes on the wall. Pledge cards which the children had signed were gaily strung together with ribbons across the wall behind her. She was thinking of the little people who had just gone—how would it be with them in years to come?—they were so sweet and pure and lovely now. Unconsciously she bowed her head on her hands, and a cry quivered from her heart. The yellow sunlight made a ripple of golden water on the wall behind her and threw a wavering radiance over her soft brown hair. It was at that moment that the Rev. Hugh Grantley, the new Presbyterian Minister, opened the vestry door.

CHAPTER V.

The Relict of the Late McGuire. Close beside the Watson estate with its strangely shaped dwelling stood another small house, which was the earthly abode of one Mrs. McGuire also of Irish extraction, who had been a widow for forty years. Mrs. McGuire was a tall, raw-boned angular woman with piercing black eyes and a firm forbidding jaw. One look at Mrs. McGuire usually made a book agent forget the name of his

book. When she shut her mouth, no lips were visible; her upturned nose seemed seriously to contemplate running up under her sun bonnet to escape from this wicked world with all its troubling, and especially from John Watson, his wife and his family of nine. One fruitful cause of dispute between Mrs. McGuire and the Watsons was the boundary line between the



The Vineland School. Out. A neat, attractive school, the result of hearty co-operation among trustees, teachers and pupils. loaned Farm and Dairy by Ont. Dept. of Education. Photo by Prof. H. L. Hutt, O.A.C., Guelph. See page 11.

two estates. In the spring Mrs. Watson and the boys put up a fence of green poplar poles where they thought the fence should be, hoping that it might serve the double purpose of dividing the lots and be a social barrier between them and the relict of the late McGuire. The relict watched and waited and said not a word, but it was the ominous silence that comes before the hail.

Mrs. McGuire hated the Watson family collectively, but it was upon John Watson, the man of very few words, that she lavished the whole wealth of her South of Ireland hatred, for John Watson had on more than one occasion got the better of her in a wordy encounter.

One time when the boundary dispute was at its height, she had burst upon John as he went to his work in the morning, with a storm of far-reaching and comprehensive epithets. She gave him the history of the Watson family, past, present and future—especially the future; every Watson

that ever left Ireland came in for a brief but pungent notice.

John stood thoughtfully rubbing his chin, and when she stopped, not from lack of words, but from lack of breath, he slowly remarked: "Miss McGuire, yer a lady." "Yer a liar!" she snapped back, with a still more eloquent burst of invectives.

John lighted his pipe with great deliberation, and when it was drawing nicely he took it from his mouth and said, more to himself than to her: "Stay where ye are, Pat McGuire. It may be hot where ye are, but it would be hotter for ye if ye were here, and ye'd jist have the 'thrubble o' movin'." Stay, where we are Pat, wherever ye are." He walked away leaving Mrs. McGuire with the uncomfortable feeling that he had in some way got the best of her.

The Watsons had planted their potatoes beside the fence, and did not dream of evil. But one morning in the early autumn, the earliest little Watson who went out to get a basin of water out of the rain barrel, to wash the "sleeps" out of his eyes, dropped the basin in his astonishment, for the fence was gone—it was removed to Mrs. McGuire's woodpile, and the lady herself was industriously digging the potatoes.

Bugey, for he was the early little bird, ran back into the house screaming:

"She's robbed us! She's robbed us! and tuk our fence!"

The Watson family gathered as quickly as a fire brigade at the sound of the gong, but in the scramble for garments some were less fortunate

Watson family to do the same.

Mrs. Watson counselled peace. John ate his breakfast in silence; but the young Watsons, and even Pearlie, thirsted for revenge. Bugey Watson forgot his Band of Hoper teaching of returning good for evil, and standing on the disputed territory, he planted his little bare legs far apart and shouted, dancing up and down to the rhythm:

Chew tobacco, chew tobacco,
Spit, spit, spit
Old McGuire did McGuire,
Nit, nit, nit!

Mrs. McGuire did occasionally draw comfort from an old clay pipe—but Bugey's punishment was near.

A long shadow fell upon him, and turning around he found himself face to face with Mary Barner who stood spellbound, listening to her lately inhibited Band of Hoper!

Bugey's dowfall was complete! He turned and ran down the road and round behind an elevator, where half an hour later Pearlie found him shedding penitential tears, not alas! because he had sinned, but because he had been found out.

The maternal instinct was strong in Pearlie Bugey in tears was in need of consolation; Bugey was always in need of admonition. So she combined them:

"Don't cry, alannah. Maybe Miss Barner didn't hear ye at all, at all. Ladies like her do be thinking great thoughts and never knowin' what's forrindin' them."

Mrs. Francis never knew what ye'er saying to her at the toime; ye could say 'chew tobacco, chew tobacco,' all ye liked before her; but what for did ye sass our lady McGuire? Haven't I told ye time out of mind that a soft answer turns away wrath, and forbye them madder than anything ye could say to them?"

Bugey tearfully declared that he would never go to Band of Hoper again. Taffy or no taffy, he could not bear to face her.

"Go tell her Bugey man," Pearlie urged. "Tell her ye'r sorry. I wuldn't mind tellin' Miss Barner Anything. Even if I'd kilt a man and hid his corpse, she'd be the very one I'd get to help me to give him a h't with him into the river, she's that good and swate."

The subject of this doubtful compliment had come down so early that morning believing that Mrs. McGuire was confined to her bed with rheumatism. Seeing the object of her solicitude up and about, she went to her room, but she had returned without knowing what had happened; but Bugey's remarkable turn decided her that Mrs. McGuire was suffering from more than a rheumatic knee. She went into the little house and heard all about it.

When she went home a little later she found Robert Robin Watson with resolute heart but hanging head, waiting for her on the back step. What passed between them neither of them ever told, but in very few minutes Robert Robin ran gaily homeward, happy in heart, shriven of his sin, and with one little spot on his cheek which he washed with rapturous care, like a man, and made his peace with Mrs. McGuire!

(Continued next week.)

Our flower seed and bulb premium offers are popular among the young people. Let them start you seeds, bulbs, and give them a corner in the garden for their own. A choice of several options, for only one subscription at \$1 a year.

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

The value of the child and which he lives is correlated. Surveying the urements, the ed to mark child practical buys seeds, flowers, and bookkeeping. checks, collect deposit slips i way he begins out knowing it. It becomes a color work and it takes the chi

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A 14 ct. Gold Fo given to any person one new subscrip Dairy. These pen to give satisfactor one.

Our School Gardens

Herbert C. Ward

(Concluded from last week.)

The value of the school garden to the child and to the community in which he lives has long been recognized by educators. In the first place, it is correlated with his school work. Surveying the plots, accurate measurements, the number of stakes needed to mark off the beds, teach the child practical arithmetic. The child buys seeds, and sells vegetables and flowers, and has his first lesson in bookkeeping. He is taught to cash checks, collect money and make out deposit slips in banks. In a natural way he begins a business career without knowing it.

It becomes an adjunct to drawing, color work and the writing of essays. It takes the child out of doors, breaks

stands that the tilling of the soil is "the most healthful, the most useful, and the most noble occupation of man."

In the fourth place, school gardening is an education in honor. The little gardener realizes for the first time the rights of ownership. He works hard for what he raises, and respects his neighbor's toil, and does not pilfer. The value of property is instilled into the child's nature. There is no surer cure for youthful vandalism than individual gardens and the responsibilities that they bring to the gardeners.

In the fifth place, they teach self-reliance through work. The manual toil in the soil is Nature's safety valve for the superfluous energy that is too often let run riot. The child in his earliest training learns how to work, and to produce something of value to

comes. We would not be behind Russia and Austria in this respect. You can accomplish this nobly and thoroughly. For women are the natural supervisors of children and of their needs.

The movement should sweep the country clean—and will do so if our women will it. The outlook has never been so promising for the transformation of tangled rusticity into orderly rurality, of tangled habits into the last report of the Secretary of Agriculture, of the United States:

"The farmer's standard of living is rising higher and higher. The common things of his farm go to the city to become luxuries. He is becoming a traveller, and he has his telephone and his daily mail and newspaper. His life is healthful to body and sane to mind, and the noise and fever of the city have not become the craving of his nerves, nor his ideal of the every-day pleasures of life. A new dignity has come to agriculture, along with its economic strength and the farmer has a new horizon far back of that of his prairie and his mountains which is more promising than the skyline of the city."

Presents for Them All

It is a long time since we had any chat with the boys and girls, owing to lack of space in the Household Department. We would like to tell you very briefly of a few of our special premiums for boys and girls.

The boy or girl who can earn something for himself, always feels that he has accomplished something. You can earn several valuable presents by working a few hours for Farm and Dairy. Every subscription you secure for us, whether renewal or new, counts for something.

A fine 14 K gold fountain pen will be given for only one new subscription; a set of 50 post cards, either Nature Study Cards, or a Trip Around the World, your choice, also for one new subscription; a first class jack-knife, or a fine pair of 8-inch nickel patent tension shears is given for one new subscription; two beautiful lithograph pictures (in colors) of the King and Queen, 18 x 22 inches, also for one new subscription, and we have scores of other equally attractive premiums.

FOR TWO NEW SUBSCRIPTIONS. You can have some chickens of your own, by doing a little work in your spare time, on your trip to the village. Send us two new subscriptions to Farm and Dairy, and we will send you a setting of eggs of any of the standard varieties.

A PURE BRED FIG. For a club of only seven new subscribers, we can send you, all for your own, a pure bred pig, of any standard variety, with pedigree for registration. Why not start opposition to the old folks, and own your own animal?

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School Grounds on St. Joseph's Island, Ont.

Keeping the grass cut. Three animated mowers at work on the roadside, after having cleaned up everything inside the fence. Building too close to road. Cut loaned by Ontario Department of Education. See page 16 also.

up the routine of book study, and through practical Nature work relieves mental congestion and sharpens his wits.

In the second place, the school garden is the parent of the home garden. It cultivates the love of order and beauty about the house. I cannot illustrate this better than by citing the city of Cleveland, in the United States. Like most American cities, the densely populated portion of that city was given over to disorder, dirt and tin cans. It is to our disgrace that nineteenth-century cities of the city, are whether in the country or the city, are surrounded by filth. The garden changes the house into a home. In Cleveland more than fifty thousand children, under the school garden initiative, have each a private garden at school or at home, and the city is transformed. Instead of spending their summer time loafing in the streets, they turn their windows into bowers and their backyards into paradises.

In the third place, the school garden teaches practical agriculture, and implants a love of rural life. When the child drinks in the love of Nature he is almost educated. Scientific gardening—the improved methods of agricultural labor—the modern problems of the rotation of crops, of fertilizing and of intensive farming, these lead the lad naturally out of the ruts of his forefathers. He sees the dignity and profit of farming, and looks upon it as a science, if not an art. Then he un-

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the world. In him is a portion of power. This gives him pride and dignity to be achieved in no other way. This training in agriculture is an all-round development. The child garden learns to use his hands and observations and quick decisions. Before he knows it he is of value and becomes a man.

HOW TO ORGANIZE SCHOOL GARDENS
How shall we organize these school gardens? There is no school in the heart of a city, in the fashionable suburb, or in the most isolated wastes of the country but what ought to have one. If the city school has a brick yard, tear out a border of five feet, and put in good loam.

What is needed is the organization of an Education Society as a department of the Women's Clubs in every community. This section must study the problem in the light of what has been done in other communities, and then adapt this experience to its own environment. The work may need to be educational among the town fathers, the school committee and the teachers. It could be begun immediately on a small scale rather than not at all. It is better that each pupil should have a proprietary care over one bulb, whether it is an onion or a crocus, than not start right in.

If each board of county commissioners, or each county newspaper could be induced to offer a prize for the best school garden, the work would be started. The superintendents of schools could also offer a prize for the best individual bed, thus stimulating a healthy rivalry among the children. Village improvement societies, farmers' clubs, and horticultural societies are the natural stimuli to these endeavors.

To the women of the land eager to do something this call of the children.

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New Wringer Attachment allows water to drain directly into the tub. Price \$9.50 complete—delivered at any railway station in Ontario or Quebec. Write for free copy of our new book.

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St. Mary's Ont.

Planning of a Farm House

Dr. Helen McMurtek, Harristown
(Continued from last week)

THE HOUSE

Now, as to the house itself. The drawings which accompany this article are offered, not as models, but rather that they may suggest how it is possible to secure comfort and convenience in the arrangement of the house. You will notice that the entrance

The Upward Look

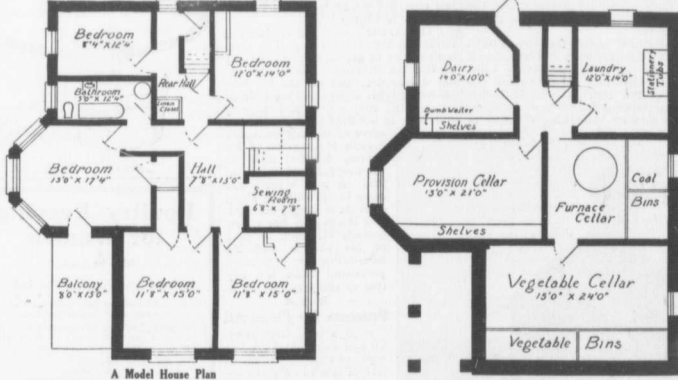
When thou goest out to battle against thine enemies and owest horses and chariots and a people more than thou, be not afraid of them; for the Lord thy God is with thee, which brought thee up out of the

When they remembered God's promises and repented of their sins they conquered nation after nation; they prospered and grew mighty. God knew how weak they were. He warned them time after time, that they would forget Him and wander after strange idols. He told them that He would have to punish them. Again and again God withheld great blessings from them lest "thou say in thine heart, my power and the

be. If we love God more than we do sin, we will be anxious to please Him in all things.

If the mercies we desire are not granted to us we should examine our lives and motives to see if the fault is not in us. God kept the Israelites wandering in the wilderness for forty years because they were not fit or ready to enter the promised land. Some, on account of their sins, were not allowed to enter it. God may be withholding the granting of our petitions for the same reason. It may be that were they granted we would straightway forget Him and fall into sin.

God, however, did keep His promises to the Israelites. So He will keep His promises to us. All He requires is that we shall have faith and that we shall strive to do His will in all things.—I.H.N.



A Model House Plan

Second floor plan. First floor plan was published last week

Cellar Plan

is at the side from a carriage way which sweeps in from the lane. A projecting portico shades the door. All the rooms downstairs open from the hall. There is no parlor, a room seldom used in many houses, but rather a big comfortable living room which may be made very charming by means of built-in book shelves and a big fire-place. The latter will be most successful when it is built of red brick or of the small round stones found in the fields, set in mortar. It should be finished by a plain shelf. Off the dining room a veranda opens. This is sheltered by being built under the roof of the house. In summer this veranda may be used as a dining-room. In the kitchen there is a large cupboard, the upper part consisting of shelves with glass doors, the lower part of drawers, bins and shelves. This takes the place of a pantry. An Institute worker who has tried this arrangement tells me that it is much more convenient than having a separate pantry. The dumb waiter is indispensable. The sink may have end shelves which can be let up or down at pleasure. The wash-room opening off the shed is intended for the convenience of the men.

THE SECOND FLOOR

The plan of the upstairs needs little explanation. A sewing room commands itself to the housewife for there she can shut in all the litter of sewing. The balcony is most convenient in times of house-cleaning and also for airing clothes, etc., on all occasions. From the rear hall a stairs leads to the attic which may be finished or simply used as a store room.

Coming to the basement we find the furnace placed as near the centre of the house as possible for economy in heating. Owing to the compact nature of this house it would be necessary to have the furnace and vegetable cellar separated by a heavy wall in order that the latter cellar might not be too warm.

Our 95 piece dinner set, given away free, for a club of nine new yearly subscriptions to Farm and Dairy. Start a club at once.

land of Egypt.—Deut. 20: 1. Be strong and of a good courage, fear not, nor be afraid of them; for the Lord thy God, He is it that doth go with thee; He will not fail thee nor forsake thee.—Deut. 31: 6. What glorious promises these were that the Israelites had to comfort and strengthen them. They needed them. They were in a strange land, surrounded by nations more numerous and war-like than their own. They knew that if they trusted in their own might and prowess they would be destroyed. They were surrounded by dangers and troubles on every side. Their greatest danger, however, was that they would forget God and His promises. When they did forget God, their enemies descended on them and defeated them utterly and time after time put them under subjection.

might of mine hand hath gotten me this wealth."—Deut. 8: 17. And so it is with us. God is the same to-day as He was the days of the Israelites. He is willing to help us to overcome our enemies and troubles, no matter how numerous and overwhelming they may seem. He has promised to give us whatever we ask, but He expects us to keep His commandments. We must have faith, and we must be content to wait for the fulfillment of His promises and not expect to have our petitions granted immediately and in just the way we may think best. We must strive to put sin out of our lives. Just as God turned away from the Israelites when they had the stolen goods in their camp, so He will refuse to answer our prayers when we persist in some sin no matter how small it may

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Try them today!

The family that hasn't eaten Quaker Oats Griddle cakes has a delightful surprise coming to it. Besides the delicious flavor, there is the pleasure of knowing you can eat all you want, and the more you eat the better for you. The best of all foods for anyone wanting more strength and vigor.

Hundreds of thousands of packages of Quaker Oats are consumed in Germany annually and almost all of it is eaten in the form of Quaker Oats griddle cakes. In the cereal restaurant of the Quaker Oats Company, located in one of the large cities, these griddle cakes are very popular.

Here's the best recipe for making them:

2 cups Quaker Oats (uncooked); 1½ cup flour; 1 teaspoonful salt; 1 teaspoonful soda—dissolve in two tablespoonfuls hot water; 1 teaspoonful baking powder (mix in flour); 2½ cups sour milk or buttermilk; 2 eggs beaten lightly; 1 tablespoonful sugar; 1 or 2 tablespoonfuls melted butter (according to richness of milk).

Process: Soak Quaker Oats overnight in milk. In the morning mix and sift flour, soda, sugar and salt—add this to Quaker Oats mixture and quantity of melted butter; add eggs—beaten lightly—beaten thoroughly and cook as griddle cakes—they make your mouth water for more.

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May 13, 1909

OUR H

"Conin E... article, on '... will be read by... ly. If we can... tions she gives... We are not old... sive old... She is a littl... ters though, in... ing to aches a... sive people of... which interest... shutting up a... a machinery she... fade away. She... and pains over... is enjoying her... woman who grun... ready to laugh... If we wish to... breathe deeply;... the foot, thus... the spine. Littl... like these, wh... leave our kitch... viding our kitch... (ated) will great... tion of that per... to Keep Young... THE BOYS Why not give farms a chance? that farmer's b... "Molly coddles" a chance to get

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The best pre... Shears that ar... thing. The best... Best picket S... ONE NEW SUBS... CIRCULATION D...

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OUR HOME CLUB

"Cousin Ears," very appropriate article, on "How to Keep Going" will be read by many right thankfully. If we can follow out the instructions she gives us we will be all right. We are not old until we think ourselves old.

She is a little too severe on her sisters though, in that paragraph relating to aches and pains. Why deprive people of speaking on topics which interest them most. It is like shutting up a wide-awake farmer in a machinery shop in town. He will fade away. She is living the aches and pains over again, but then she is enjoying herself. I only know one woman who grumbles, and she is ever ready to laugh at a good joke.

If we wish to keep young we must breathe deeply; stand on the ball of the foot, thus lifting the weight off the spine. Little physical exercises like these, which we do not need to leave our kitchen to perform, (providing our kitchen is properly ventilated) will greatly assist in the solution of that pertinent question, How to Keep Young.—"Mother."

THE BOYS ON THE FARM

Why not give the boys on our farms a chance? Is it any wonder that farmer's boys are considered "Molly coddles"? A town boy has a chance to get out and depend on

himself, and steps along with that independent swing, while the farmers' boy is taught to let father lead. Whose fault is it that those shoulders droop and the head is bent forward, and the expression in his eye denotes dependence? Won't some members of the Home Club give their views on this subject? The question of keeping on top on the farm is a very important and live one.—"Aunt Sue."

VACATIONS ON THE FARM

Sometimes the wife may think that they cannot afford the price for a trip, but they can surely afford a horse and rig, and drive to a pretty lake early some bright morning, and spend the whole day in solid enjoyment.

I have had some of my most enjoyable holidays at just such a place. Occasionally about a dozen neighbors would go together and have the use of small boats, and everybody would forget for one day that they had any care in this world. I am sure they all come home feeling better for this day out, and anxiously looking forward to the next such a treat.—"The Doctor's Wife."

A burn can be relieved with common baking soda (dry) if applied at once.

A good wash for inflamed eyes is made of one pint boiling water, one teaspoon boric acid powder, and a half teaspoon spirits of camphor.

THE COOK'S CORNER

Send in your favorite recipes, for publication in this column. Illustrations pertaining to cooking are solicited, and after receipt of same, as soon as possible sent free for two new yearly subscriptions at \$1.00 each. Address, Household Editor, this paper.

JELLY ROLL

Four eggs, 1 cup sugar, 5 table spoons cold water, 1 cup flour, 4 tea spoons baking powder.

SNOW PUDDING

One-fourth box of gelatine, ¼ cup cold water, 1 cup boiling water, 1 cup sugar, ½ cup lemon juice, whites of 3 eggs. Soak the gelatine in the cold water 30 minutes or until soft. Add boiling water, sugar and lemon juice and stir until the sugar is dissolved. Strain into a large bowl and set aside to cool. If acidulated gelatine is used, the lemon juice may be omitted.

Beat the whites of the eggs to a stiff froth and when the gelatine begins to stiffen, add the whites and beat all together until very light; pour into a pretty glass dish or mold it. If the whites of the eggs are added to the gelatin before it becomes cold or stiff, more times will be required for the beating; 3 or 10 minutes should be sufficient. Make a custard of the following and serve with the pudding: Yolks of 3 eggs, 3 table spoon sugar, ¼ teaspoon salt, 2 cups hot milk, ½ teaspoon vanilla.

STRAWBERRY WHIP

One quart strawberries, whites 4 eggs, sugar. Mash the berries fine and sweeten to taste, add the beaten whites, beat again and set on ice. Serve very cold with cream.

CURRANT BREAD SAUCE

Stew ¼ cup cleaned and dried currants 15 minutes in water to cover, then add 1 tablesp butter, a very little salt and pepper, ¼ teasp clove, and two heaping tablesp stale bread crumbs. Simmer 15 minutes longer, and just before serving add ¼ cup cider.

PEACH OMELET

Of the sweet omelets this is perhaps the best, although an orange omelet made in the same way is excellent. Beat the yolks of 4 eggs and one tablespoonful of sugar until it is creamy and light yellow; add a table spoonful of lemon-juice slowly, stirring it carefully, a little salt and a little grated lemon rind. Whip the egg-whites very stiff and fold lightly into the yolk mixture. Have a heaping tablespoonful of butter in the frying-pan, and when it is hot pour in the mixture. As the omelet thickens, pierce it here and there with a fork, and when it is done and has dried in the oven, spread with peaches sliced very thin and sugared; fold over; sprinkle with sugar and serve at once. All fruit should be allowed to stand sliced in sugar to extract the juice, which should be poured around the omelet when serving it.—The New Idea Magazine.

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POINTED YOKE BLOUSE 6286



The pointed yoke is always a favorite. It allows of treatment of various sorts and its lines are very generally becoming. It can be treated with the odd cess for the waist and for the entire gown and it can be worn either with a high waisted skirt or with a belt.

Material required for medium size is 4½ yds 24, 3 yds 33 or 2½ yds 44 in wide, with 1½ yds 24, 2 yds 33 and 1½ yds of edging.

The pattern is cut in sizes for 32, 34, 36, 38, 40 and 42 in bust, and will be mailed on receipt of 10 cts.

FANCY YOKE BLOUSE 6281



The blouse that can be made from tubercle or other fancy material is the one in great demand just now and this model is especially designed for such use. It is made with a pretty fancy yoke and can be either lined or unlined.

Material required for medium size is 3½ yds 24, 3 yds 33 or 2½ yds 44 in wide with ½ yd of all-over lace.

The pattern is cut in sizes for a 32, 34, 36, 38 and 42 in bust, and will be mailed on receipt of 10 cts.

GIRL'S DRESS 6291



One piece dresses are favorites for little girls this season. They are simple, childish and becoming and easy to launder. This one is easy to make and is especially adapted for the summer. It is made of linen with scalloped edges, just such treatment being very fashionable now but the dress can be finished with plain bands or with hemmed edges if preferred and all seasonal materials are appropriate.

Quantity material required for medium size 7½ yds 24, 3½ yds 33 or 2½ yds 44 in wide.

The pattern is cut for girls of 4, 6 and 10 yrs, and will be mailed on receipt of 10 cts.

MISSER'S BOX COAT 6294



The half fitting coat in the best style for becoming to young girls and to be very much worn throughout the season. This one is simple and youthful, is cut on admirable lines and is equally well adapted to the suit and the general wardrobe.

Material required for 16 yr size is 4 yds 27, 2½ yds 44 or 2½ yds 52 in wide.

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

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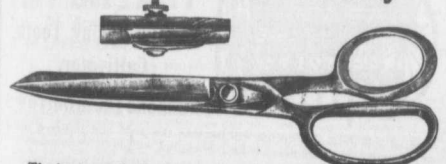
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OUR FARMERS' CLUB

Contributions Invited.

NOVA SCOTIA

ANTIGONISH CO., N. S.

ANTIGONISH.—The weather continues cold; grass is not showing much. A number of farmers have had hay to carry their stock through Seed grain seems to be scarce, and the prices asked are away up, except clover, which is selling at a more reasonable rate than it has for a number of years. A large number of horses are changing hands, and good prices are being paid, especially for ones of the low set draft type. Milk cows are scarce and it is almost impossible to buy good ones at any price.—Tom Brown.

JAMES RIVER.—Until the last few days it has been very cold for this time of year. We had several snow storms the latter part of last month. Quite a number of farmers are short of hay, as stock took larger quantities to bring them through the cold weather. However, all live stock looks well. The frost is pretty much all out of the ground, although up until last week the repairing of fences was much hindered by the cold. The roads are beginning to dry fairly well. The Farmers' Association of Antigonish held a horse fair at Antigonish on May 4th. Besides exhibiting young horses, farmers from all over the county that have horses for sale, brought a good many, and buyers found a variety to select from. These horse fairs have been held annually for a number of years. Loose hay brings \$10 a ton, baled hay \$12 to \$15; oats, 70c to 85c; potatoes are plentiful and sell for 40c. Beef is selling for 85c a lb.—J.

QUEBEC

RICHMOND CO., QUE.

DANVILLE.—The winter will keep cold with flurries of snow. The sugar season is over. The average make was about two pounds a ton. There is not much work done on the land yet owing to the cold wet weather. The creamery has been running all winter. We expect the cheese factories to be doing business soon. Some farmers have joined the co-op testing association and are keeping individual records of the milk they produce. Some farmers think it better to know by actual test the cows that are paying their board and giving a profit.—J. E. H.

ONTARIO

GRINVILLE CO., ONT.

CHARLESVILLE.—Owing to the cold and backward spring quite a number of farmers are buying hay. As a consequence half of the cattle are going to come out on the grass very thin. All the cheese factories are in operation now. The one at Charlesville is making very butter for this season. Clover has suffered considerably on account of the many frosts that have been prevalent. Alfalfa is reported almost a failure. The following prices are being paid for farm produce at this point: Timothy hay, \$15 a ton; clover hay, \$15 a ton; alfalfa, \$14; oats, 10c to 55c; bush; bran, \$24 a ton; fresh eggs, 16c to 18c a doz; creamery butter, 25c; potatoes, 75c a bush; milk cows, \$25; calves, \$2 to \$3; hogs, 7c a lb.; calfskins, 10c a lb.; hides, 8c a lb.—G. W. C.

DURHAM CO., ONT.

BETHANY.—Fall wheat and clover came through the winter well considering the amount of growth which they had last fall. Stock is in fair condition, but if such bad weather continues there is going to be insufficient, as is the case with a few at present. The small number of hogs kept and their rather poor quality is

principally due to the lack of and high price of feed. In regard to spring operations, nothing has been done on the fields, with the exception of small areas of light soil.—W. M.

HALIBURTON CO., ONT.

IRONDALE.—We are having a very late spring. No snow has been yet. The ground is covered with snow, and it is still snowing. It has been very cold and stormy for the past week. Stock does not look so well as it is very scarce; it has not been so scarce for years. Water is very plentiful. We need a cheese factory. A cheese factory would be a great thing for this section.—J. P. H.

VICTORIA CO., ONT.

DUNSFORD.—Very little seeding has been done. The fields are covered with snow. Stock are yet in their winter stables. Feed is getting scarce. Cattle, sheep and lambs are doing well. Fat hogs are scarce. No foals yet. Fall wheat and clover looks well.—T. R.

HARTLEY.—The horse market has slightly declined. A good horse, however, still brings a good price. There is a good demand for all kinds of cattle. Hogs have some record breaking prices. In fact, everything the farmer has to sell is selling good home, a good wife, and the Farm and Dairy paper to read, ought to be the happy lot of the farmer.—W. H. E.

WAINWORTH CO., ONT.

KIRKWALL.—This spring is one of the coldest and most backward that we have had for several years. As the 15th of May (May 8th) one might almost say nothing has been done on the land, although an odd farmer has done a little plowing. Fall wheat and clover are looking splendid, and if warm weather was to come soon the prospects are good for most farms although an occasional farmer is buying hay and straw to last until the grass comes. Grain of all kinds is selling very high. Wheat is \$1.15 a bush; peas, \$1.25 a bush. The best seed oats bring 85c to 90c a bush, and from 80c to 85c a bush, and feed corn about 80c to 85c a bush. Potatoes are becoming much scarce, and are selling at from 80c to \$1 a bush.—A. W.

WATERLOO CO., ONT.

AYR.—Our backward spring will make seeding very late. Work had commenced on the 1st of May, but a little rain, when we were visited by a snow storm on April 29th. It was so bad that it almost blocked some of the roads. Some fields of winter wheat are rather badly killed out, mostly in small patches, where the snow and ice laid on it during those sunny days the last of March. Some of the farmers are anxiously waiting for grass as fodder is getting scarce.—G. O. S.

WELLINGTON CO., ONT.

ELORA.—The prospects for a successful seed time do not seem very bright, one of the heaviest snow storms of the year having fallen recently. Very little seeding has been done and it is better so, for where land is under water some early here lost his barn with all its contents, including some 40 cattle, six horses, and a number of sheep, with all the equipment of a large farm. The loss of calves, cattle, horses, etc., being high, the loss is enormous. Beef cattle are selling well; not much has been done in the stock. Hogs, \$7.50 this week and if only a good spell of weather comes soon farming will be all right yet, but we have never seen the farmers more disappointed than they are at present.—G. W.

BRUCE CO., ONT.

WIARTON.—We are still looking in vain for spring weather. Very few have gotten a plow into the ground as yet, and that only on sod. When it does not rain it freezes hard. There has been done to young clover since April 20th by frost than at any time all winter. Possibly the dry weather last fall helped to make the clover weak in the root. This past winter has been I think the longest feeding spell we ever experienced. Most of us began to feed on May 15th by the 15th of October, and it looks as though we will have to keep it up till May 15th at any rate.—C. S.

MIDDLESEX CO., ONT.

APPIN.—Like the rest of Western Ontario, this locality has evidently added a new experience to those of the past spring in the form of a heavy snow, together with lightning, thunder and rain, have interrupted seeding operations. Seeding had just begun and had scarcely become general. Frequent heavy frosts, while beneficial to the large area of spring plowed land, have kept the surface wet and dead in most clay fields and has hindered a good till

LIVE HOGS

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

THIS WEEK'S PRICES FOR HOGS DELIVERED AT FACTORY \$7.35 a Cwt. FOR HOGS WEIGHING 100 TO 220 LBS.

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

on the fields where operations have been begun. Farmers are wondering what the effect of the snowstorm will be. Will it be colder and yet more backward, or is it a forerunner of early fine weather? Wheat, which had been affected by frosts of the recent weeks appears to have been freshened by the snow. In a few cases feed supplies have been exhausted and hay is being bought at from 38 to \$10 a ton according to quality. Mill feeds are costing \$25 for bran and shorts; corn \$27 a ton; barley, \$26 a ton for feed; oats, \$24 a bush, for feed and 50c for seed.—C. M. M.

GOSSIP

We are informed by the management of the new farm and stock paper that is shortly to be started in Canada, that the purpose of the publication will be to pre-

sent each week matter of practical value to farmers and stockmen. Original articles only will find place in its pages. The best recognized authorities will be its contributors. It will be under editorial management which thoroughly understands making a paper of value to farmers. Inquiries on all live farm topics are solicited by the publishers. These will be answered free of charge for subscribers. All the agricultural news each week will be presented in condensed form. A superlative feature will be the reports and statistics of grain and live stock prepared by the paper's own special organization especially. Both the professional breeder of pure bred live stock and the general farmer will find it worth words to them in their everyday work.

Renew Your Subscription Now.

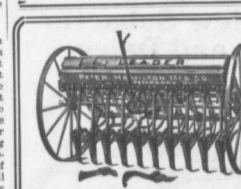
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HOLSTEIN-FRIESIAN NEWS

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

HOLSTEIN-FRIESIAN OFFICIAL TESTS FOR MARCH, 1909.

Beldina Schilling (3103) at 8 yrs 11 mos 23 days of age, 829 lbs butter fat, equivalent to 18.81 lbs butter, milk 27.4 lbs. Owned by F. J. Griffin, Burgessville, Ont.
Janette (3227) at 8 yrs 11 mos 21 days of age, 15.29 lbs butter fat, equivalent to 17.75 lbs butter, milk 32.9 lbs. Owned by George Rice, Tillsonburg, Ont.
Zenobia B. (3576) at 7 yrs 11 mos 14 days of age, 15.57 lbs butter fat, equivalent to 17.92 lbs butter, milk 41.0 lbs. Owned by George Rice, Tillsonburg, Ont.
Josephine De Kol (5645) at 4 yrs 4 mos 9 days of age, 15.21 lbs butter fat, equivalent to 17.75 lbs butter, milk 40.9 lbs.
Warily Fat test at 4 yrs 4 mos 9 days of age, 62.15 lbs butter, equivalent to 72.51 lbs butter, milk 120.0 lbs. Owned by M. H. Haley, Springford, Ont.
Mildred (5586) at 3 yrs 7 mos 2 days of age, 15.21 lbs butter fat, equivalent to 17.81 lbs butter, milk 42.3 lbs. Owned by Gordon H. Manhard, Manhard, Ont.
Lucille (5638) at 4 yrs 6 mos 2 days of age, 14.27 lbs butter fat, equivalent to 16.56 lbs butter, milk 42.5 lbs. Owned by F. J. Griffin, Burgessville, Ont.
Tollilla Saraceni Rue (721) at 3 yrs 8 mos 16 days of age, 14.88 lbs butter fat, equivalent to 16.43 lbs butter, milk 35.5 lbs. Owned by J. W. Richardson, Caledonia, Ont.
Casey Netherland (424) at 3 mos 22 days of age, 13.37 lbs butter fat, equivalent to 15.50 lbs butter, milk 40.5 lbs. Owned by J. W. Richardson, Caledonia, Ont.
Arvalina 2nd (727) at 3 yrs 2 mos 21 days of age, 15.21 lbs butter fat, equivalent to 14.94 lbs butter, milk 33.0 lbs. Owned by M. H. Haley, Springford, Ont.
Eunice Jane Poeh (732) at 3 yrs 24 days of age, 12.71 lbs butter fat, equivalent to 14.54 lbs butter, milk 32.5 lbs. Owned by M. H. Haley, Springford, Ont.
Delafina Brook De Kol 2nd (5577) at 4 yrs 4 mos 6 days of age, 13.38 lbs butter fat, equivalent to 15.38 lbs butter, milk 32.1 lbs. Owned by George Rice, Tillsonburg, Ont.
Queen Inka De Kol (5867) at 1 yr 11 mos 15 days of age, 11.15 lbs butter fat, equivalent to 12.54 lbs butter, milk 35.47 lbs. Owned by Gordon H. Manhard, Manhard, Ont.
Rudla Wayne Johanna Lass (779) at 2 yrs 10 mos of age, 11.15 lbs butter fat, equivalent to 13.01 lbs butter, milk 31.7 lbs.
Thirty day test, at 2 yrs 10 mos of age, 12.44 lbs butter fat, equivalent to 15.09 lbs butter, milk 32.6 lbs. Owned by J. W. Richardson, Caledonia, Ont.
Princess Inka De Kol (10250) at 1 yr 11 mos 14 days of age, 10.20 lbs butter fat, equivalent to 12.46 lbs butter, milk 31.01 lbs. Owned by J. W. Richardson, Caledonia, Ont.
Pauline Saraceni (7343) at 3 yrs 3 mos 10 days of age, 10.20 lbs butter fat, equivalent to 12.60 lbs butter, milk 32.5 lbs. Owned by W. H. Simmons, New Durham, Ont.
Saraceni Lass of Riverside (7281) at 2 yrs 6 mos 5 days of age, 10.55 lbs butter fat, equivalent to 12.31 lbs butter, milk 32.5 lbs. Owned by J. W. Richardson, Caledonia, Ont.
Calamity Poeh (723) at 3 yrs 1 mo 24 days of age, 11.43 lbs butter fat, equivalent to 11.84 lbs butter, milk 26.2 lbs. Owned by George Rice, Tillsonburg, Ont.
Princess Mercena De Kol (8227) at 1 yr 11 mos 15 days of age, 11.43 lbs butter fat, equivalent to 11.45 lbs butter, milk 24.1 lbs. Owned by F. J. Griffin, Burgessville, Ont.
Will Trenton (7859) at 2 yrs 11 mos 3 days of age, 9.20 lbs butter fat, equivalent to 11.43 lbs butter, milk 35.2 lbs. Owned by M. H. Haley, Springford, Ont.
Margie Verhele (8227) at 3 yrs 10 mos 29 days of age, 9.67 lbs butter fat, equivalent to 11.43 lbs butter, milk 32.5 lbs. Owned by F. J. Griffin, Burgessville, Ont.
Princess Scott 2nd (7767) at 2 yrs 11 mos 10 days of age, 9.26 lbs butter fat, equivalent to 11.56 lbs butter, milk 29.5 lbs. Owned by W. H. Simmons, New Durham, Ont.
Princess Annie Poeh (7796) at 2 yrs 16 mos 15 days of age, 8.35 lbs butter fat, equivalent to 10.20 lbs butter, milk 27.5 lbs. Owned by J. W. Richardson, Caledonia, Ont.
Hechtliche De Kol Daisy (8227) at 2 yrs 10 mos 10 days of age, 8.31 lbs butter fat, equivalent to 10.20 lbs butter, milk 29.6 lbs. Owned by J. W. Richardson, Caledonia, Ont.
Corinne Calamity Poeh (1013) at 2 yrs 10 mos 15 days of age, 8.72 lbs butter fat, equivalent to 10.20 lbs butter, milk 29.6 lbs. Owned by George Rice, Tillsonburg, Ont.
Princess Inka De Kol 2nd (806) at 1 yr 11 mos 5 days of age, 14.27 lbs butter fat, equivalent to 16.98 lbs butter, milk 35.7 lbs. Owned by M. L. Haley, Springford, Ont.
Headwale Lassie (1056) at 2 yrs 9 mos

23 days of age, 8.49 lbs butter fat, equivalent to 9.90 lbs butter, milk 25.3 lbs. Owned by R. Mallory, Belleville, Ont.
Inka Mercedes De Kol 5th (8532) at 1 yr 10 mos 17 days of age, 8.43 lbs butter fat, equivalent to 9.25 lbs butter, milk 22.2 lbs. Owned by J. W. Richardson, Caledonia, Ont.
Daisy Hechtliche Poeh (8531) at 1 yr 11 mos 27 days of age, 8.16 lbs butter fat, equivalent to 9.32 lbs butter, milk 25.5 lbs. Owned by J. W. Richardson, Caledonia, Ont.
Fairy Favorit Mercena (8097) at 1 yr 10 mos 10 days of age, 8.10 lbs butter fat, equivalent to 9.45 lbs butter, milk 25.5 lbs. Owned by M. L. Haley, Springford, Ont.
Thirty day record, **Aggie's Emily** (3568) butter fat, equivalent to 62.86 lbs butter, milk 120.15 lbs. Owned by J. W. Richardson, Caledonia, Ont.
Thirty day record, **Nancy Wayne** of Riverside 3rd (542) at 4 yrs 11 mos 6 days of age, 51.23 lbs butter fat, equivalent to 59.87 lbs butter, milk 156.9 lbs. Owned by J. W. Richardson, Caledonia, Ont.

BULL TRANSFERS FOR MARCH, 1909

The publication of these transfers is paid for by the Holstein-Friesian Breeders' Associations.
Aggie Lad of Yarmouth, David Coughlin to James McKenzie, St. Thomas, Ont.
Aggie's Royal Abbecker, F. C. Pettit & Son to F. E. Pettit, Burgessville, Ont.
Aggie's Royal Abbecker, F. E. Pettit to Edwin Waud, New Durham, Ont.

Darke's Calamity De Kol, Morton Griffin to Justus H. McLean, Inverman, Ont.
De Kol Koradyke King, James Shields to Brown Bros., L'Oré, Ont.
De Kol Milk Paul, D. G. Peat to Morgan King, Athens, Ont.
De Kol of Buono Vista, W. J. Mulloy to Andrew Kennedy, Winchester, Ont.
De Kol Wayne 2nd, E. Laidlaw & Sons to H. E. George, Crampton, Ont.
Delbert Artis De Kol, Archibald Parks to H. E. George, Crampton, Ont.
Dowdrop Calamity De Kol, Wesley Meder to James H. Molean, Inkerman, Ont.
Deater Poeh De Kol, Kennedy to John Morland, Sydenham, Ont.
Dr. John, Harry Rosebrough to T. A. Duke, De Kol, Panarista, Robert Stillman to Robert Gardner, Norwood, Ont.
Duke Mercedes Acme, Herbert Clark to Austin Cowan, Newburg, Ont.
Duke of Anjou, L. Summerfield to John R. Turner, Mongolia, Ont.
Emperor Glen, Allan McDonald to Joseph S. Moxley, Cumming's Bridge, Ont.
McDonald, Ormond, Ont.
George, Crampton, Ont.
Fairmount's King, Fred Abbott to G. H. Yeoan, Ont.
Ferdinand De Kol Isoco, Fibhellor Bros. to G. H. Pettit, Thamesford, Ont.
Ferdinand's Pooterie De Kol, Fibhellor Bros. to G. H. Pettit, Thamesford, Ont.
Freeman's Pooterie, H. Hoffman to Andrew Freeman, Comestoga, Ont.
Gaasterlander Johanna De Kol, J. E. K. Herick to James McInnis, Goro, Ont.
Gaasterlander Victor De Kol, J. E. K.

Inka Hengerveld De Kol, W. W. Brown to George Forester, Gormley, Ont.
John Butter, Baron, John A. McArthur to F. Rivaz, Palermo, Ont.

A WELL BRED HOLSTEIN BULL

Brightest Canary No 5786, the Holstein bull illustrated in this issue, is of the choicest breeding; by going back a few generations, we note the grand old cow, Canary (Imp). She gave 90 lbs. milk in one 24 lb private record. She is one year, and made a three A. R. O. cows. Her best daughter, three A. R. O. cows, made 51.61 lbs. in seven fat, 4.92 per cent. She is a dam of five cows, and 102.3 lbs. in 30 days, average 4 per cent. She is a dam of five calves, three with records over 20 lbs. Her grand daughters, five sisters and three daughters of a sister, 27 in all, that average 4.65 per cent. fat. There are also 14 grand daughters added to the above number, making 41 in all, and the average fat test for the 41 is 3.85 per cent. The best daughter of Canary Mercedes is Can-sensation when she made the remarkable record of 21 lbs. 3 oz., at two years old, world's record. Later she made a record day of 26.30 in seven days, and 100.9 in 30 days. This cow is dam of Brightest Canary, the subject of this sketch. Thus he



A Sire with Record Breeding on Both his Sire's and his Dam's Side
 Brightest Canary No. 5786, illustrated above, owned by Gordon Manhard, Leeds Co., Ont., has an enviable record. His dam, Inka Mercedes Brightest, made 22.95 lbs. butter in 7 days, 100.9 lbs. butter in 30 days. His sire's dam, Sadie Vale Concordia, made 31.61 lbs. butter in 7 days, and 102.5 lbs. butter in 30 days.—Adv't.

Artis Laddie, Logan Bros. to R. E. McInnis, Scotch Village, N. S.
Ayon De Kol, Wm. Johnston to Albert McConey, Lyons, Ont.
Booker, Logan Bros. to D. A. Downie, East Margreestville, N. S.
Barbetta Sir Teake, Munro Pure Milk Co. to Joseph Todd, Alex. H. George & Beauty Merchants, Chilo, N. S.
De E. J. Dunbar, Melbourne Ridge, Que. to Bessie's Pauline De Kol, W. B. Poole to Teifer Bros., Ingersoll, Ont.
Billy Roy, Thomas McGuire to Joseph Sligoetz, Campbellford, Ont.
Black Prince Burke De Kol, Dr. L. de L. Harwood to W. Shepherd, Comox, B. C.
Butter Queen 2nd's King, Fred Abbott & Caesar of Sorel, Jos. E. Ferland to Heris Barrette, Ste. Malaise, Que., to Camie's Poeh, Thomas Hartley to Wm. Canary Seven Spots, Emmet, Ont.
Centre View Butter Boy 2nd, T. D. Edge to W. E. Ode, Oxford Centre, Ont.
Centre View Butter Boy's 2nd, T. D. Edge to Henry Gillies, Arnprior, Ont.
Count Calamity Hechtliche, Walburn Dairy B. Sir Poeh, Beasville, Ont.
Deays D. S. G. Gooderham, Thornhill, Ont.

Herick to O. S. Shaw, Kinsley, Que.
Gaasterlander Wayne J. E. K. Herick to Roger Handley, Wayne J. E. K. Herick, Fort Carleton, Mountain View, Ont.
Gibson Boy, John Pinedy to Wm. J. Gib-Glenary, Barco, James Williams to E. D. Shively, Springfield, Ont.
Goshaw, Bert Madgale to William Pick, Lynedoch, Ont.
Hans Poeh, T. E. Hedcock to Samuel Sangster, Eversh, B. C.
Nelson De Kol's Prince, E. Laidlaw & Sons to Samuel Dickie, Central Onslow, N. S.
Hengerveld De Kol Keyes, James Crawford & Sons to A. D. Foster, Blomfield, Ont.
HIGHLAND HILL Laddie, N. Sangster to D. Hill-Crean, Allan's Corners, Que.
Hill View, James Laidlaw, G. Brethen to E. F. Ford, Ormeau, Ont.
Hill View Steadman, Walter S. Schell Homestead Acme Favorit, Coho Bros. to George Woodrow, New Durham, Ont.
Homestead Bank Mercena, Coho Bros. to Wm. Toth, Burgessville, Ont.
Homestead Favorit, Frank J. Griffin to Allan Griswold, Burgessville, Ont.
Homestead Mercena Lad, Frank J. Griffin to Lewis P. Force, Beaconsfield, Ont.
Indian Prince, Robert J. Jibb to Roy Mac-

lin is a son of the best daughter of Canary Mercedes, and she is the best daughter of the (Imp.) cow, Canary.
Brightest Canary was sired by Paul De Kol Jr., sire of 21 A. R. O. daughters. He is the grand sire of Grace Fayre 2nd, 7 days record, 33.85 lbs. butter. His dam was Sadie Vale Concordia, milk in one day, 104.5; butter in seven days, 36.2; butter in 30 days, 121.07 lbs. milk in one test, 10.5 lbs. milk. She is dam of three A. R. O. cows. Grand sire of Brightest Canary is Paul De Kol, sire of 38 A. R. O. cows, 30 lbs. milk in one year, the greatest cow world has ever lived 185 A. R. O. daughters she made 31 lbs. 1/2 oz. thoroughly worked and salted, one ox. to one lb. before worked. He is also a grandson of De Kol world has never known through her sons which have sired 185 A. R. O. daughters and 124 A. R. O. sons.
 There will be sold at Brockville Fair Grounds, May 25th, 1909, 50 head of select some of these high class cattle in calf to this great bull.

PLUS + Strength !

It's built into EVERY Cockshutt Implement
—it pays to put it there—pays you and us too!

Plus-strength means strength to stand harder usage than any farm-impliment ought to have to stand—but DOES have to, sometimes.

You know what "careful" use the average "hired man" is apt to give any farm-impliment! And the more expensive the thing is, the harder usage it is likely to get—on your farm or anybody else's. Now an ordinary farm-impliment lacks plus-strength. It's built for careful handling—not for abuse. Wherefore it goes smash under stress—and always at the busiest time—when breakdowns cost most.

You need such strength in farm-tools

Of course it costs more to build plus-strength into a machine; but the buyer of a Cockshutt impliment pays no more to get it.

Just as no Cockshutt customer pays a cent of the cost of this advt., he doesn't pay for the surplus strength built into a Cockshutt tool.

Where the value of it comes in Advertising is an investment that repays us in increased business—and plus-strength is an investment that repays us in increased reputation. You get breakdown insurance for the price you'd pay for ordinary impliments. We get your faith and your good word—and they count a whole lot in this business.

This plus-strength does NOT mean extra weight, nor clumsiness. It wouldn't be worth having if it did mean either of those things.

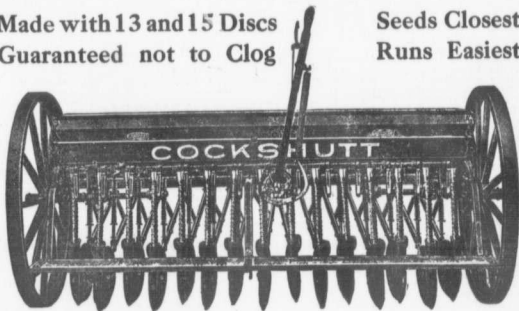
Putting this surplus strength into a Cockshutt Impliment is a matter of careful choice of materials; of special formula for steels and irons; of special factory processes;

Lighter draft goes with plus-strength of special study by experts who are highly paid to accomplish this very thing—and to do it without increasing, but rather by lessening, the friction and the draft of the impliment. Cockshutt impliments stand up better and still draw lighter.

As the Cockshutt Line includes a great many kinds of impliments—ranging from light garden plows to huge 12-furrow engine gangs, and including harrows, cultivators, seeders, and other kinds of modern farm-equipment—it is not possible to tell you here just how this plus-strength is shown by each of them. But if you will just write and ask for our catalog, and tell us what particular impliment you might be interested in, the details will go to you by return mail. That is well worth your while. It means money saved to you—and satisfaction gained. Write us to-day.

Made with 13 and 15 Discs
Guaranteed not to Clog

Seeds Closest
Runs Easiest



If you knew, to a dead certainty, that seeding your land to any grain with this New Disc Drill actually would increase the yield from 2 to 5 bushels an acre—if that could be proved to you beforehand—you would think pretty seriously about investing in one, wouldn't you? Well, that CAN be proved to you; and so can it be proved to you that no other seeding machine built will do what this does. Free Booklet B proves it.



Concave Side—N. to Tubular Pressure Spring Rod that Prevents All Bucking—



Convex Side of the Cockshutt Disc that Can't Clog in Any Soil—

Booklet-B tells you, among things you ought to know, why this New Cockshutt Disc Drill sows anything grown in drills, whether small as tobacco-seed or big as broad-beans, with greater accuracy and far more uniformity than any other method of seeding can do. The pictures at each side of what you are reading now suggest one reason why this is so.

The picture above shows that the grain-boot on this Drill does not touch the disc at any point; and, also, that the space between boot and disc widens gradually from bottom to top. This makes it impossible for trash, weeds, stones, etc., to jam there. Nothing of that kind can block the free turning of any disc. There's nothing to hold mud or trash. That's why this drill will work perfectly under conditions that would stall any other drill ever built.

Discs are set six inches apart with a seven-inch stagger, and at exactly the angle that will cut the ground easiest. Grain follows the furrow—always at the depth you adjust for—no chance for missing. And you can seed from one-half of the hopper only, if you wish to—often a big advantage. The grain-feed is a FORCE-feed, governed by a lever handily reached from the full-width running board.



This shows the one perfect disc-bearing—GUARANTEED dust-proof and self-oiling. It accounts for this Disc Drill's wondrously light draft.

This Drill's drop-pattern frame, of high carbon angle steel (extra tough, extra strong), has a heavy I-beam running across the machine's whole width. The whole frame is RIVETED together—not bolted—nothing about it to shake loose or get out of true. And this is simply one of many Plus-Strength and Minus-Draft features of the Cockshutt New Disc Drill. SEND FOR THE BOOKLET that tells about them all—send to-day. It's FREE. Address

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